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Lessons from Remote Learning during the COVID-19 Pandemic

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Education

by

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ABSTRACT OF THE DISSERTATION

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during the COVID-19 Pandemic

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Professor Diane Durkin, Co-Chair

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This dissertation examines the lessons of the emergency remote teaching experience during the COVID-19 pandemic within higher education. It considers the experiences of highly rated faculty members at a large public research university, identifying the challenges they faced during the transition to remote teaching, and the innovations they utilized during this period, with their ideas for the future of online learning and teaching. This study was primarily qualitative in nature, and heavily informed by a quantitative analysis of teaching evaluation data. The findings revealed that emergency remote teaching was the catalyst to a significant revitalization in pedagogical approaches for well-rated teachers among this study. Faculty members altered their teaching strategies by enhancing their course content, maintaining normalcy and organization, and employing student-centered strategies. These changes were driven by an ethic of care for

students' well-being, along with a strong commitment to ensuring educational quality. The study illustrates the successful integration of new teaching strategies and their potential for long-term retention within the future of higher education. Many faculty participants planned to retain some of the new pedagogical approaches they encountered within their remote journey in their future teaching, indicating a paradigm shift in teaching methods. This dissertation contributes to the growing body of research on the emergency remote learning environment and provides insights to educators and administrators in higher education on effective teaching within the growth of future online learning. It highlights the need for support, resources, and structures to help faculty improve in their teaching practices and the importance of considering faculty and student experiences within the ongoing development of online education.

The dissertation of Claudia Cheffs is approved.

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DEDICATION PAGE

I dedicate this manuscript to my parents, Mariola Anna Cheffs and Przemysław Peter Cheffs. Thank you for everything you have done for me. For coming to this country as immigrants and giving me the chance to grow, thrive, and become the person I am today. For instilling within me the values, faith, and traditions of our beautiful culture. For passing on the traits, motivation, and spirit to get through this program and my entire life. You have taught me so much and have set an enormous example given everything you have accomplished. I am in awe and inspiration of all that you have done. Thank you for your endless love and support. You struggled to get to where you are today, but you made it. And I am so proud of you. I love you forever i na zawsze, Mamuś i Tatuś. Dziękuję wam za wszystko. This dissertation is for you.

"Nigdy nie jest za późno, żeby zacząć od nowa, żeby pójść inną drogą i raz jeszcze spróbować. Nigdy nie jest za późno, by na stacji złych zdarzeń, złapać pociąg ostatni i dojechać do marzeń"— Jan Paweł II.

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CHAPTER 1: THE PROBLEM

Introduction

Among the context of the COVID-19 pandemic, institutions of higher education are considering the growth of future online pedagogy (Coffey, 2023). Colleges and universities around the world are seeking to modernize, address financial challenges, and face pressure to offer more flexible teaching options to maintain their competitive edge within the educational sector (Hart, Hill, Alonso, Xu, 2022). While distance education is nothing new and has slowly gained traction within higher education in the last few decades with the Internet boom (Harasim, 2000), the experience of teaching remotely during the pandemic has only accelerated the speed at which institutions and faculty consider expanding or shifting to more online teaching. And yet, the research has not fully investigated the full impacts of the emergency remote teaching environment.

The experiences and insights from this unique learning landscape from the perspective of faculty members, students, and administrators are worth considering within the context of future online pedagogy. Understanding the implications and potential strategies for effective teaching within such an environment can only be beneficial to educators and administrators as they continue to traverse the online learning landscape (Johnson, Veletsianos, & Seaman, 2020; Garcia-Vedrenne, Orland, Ballare, Shapiro, Wayne, 2020). This study sought to capture the perspectives of students and faculty members who navigated the complexities of this unique period.

COVID-19 and Remote Learning

In March of 2020, the learning landscape of education completely transformed. With the outbreak of the COVID-19 health pandemic, the world of education transitioned all its

teaching into an emergency remote learning format to prevent the spread of infection and to abide by health protocols (Hammond, Watson, Brumbelow, Fields, Shyrock, Chamberland, Barroso, Miranda, Johnson, Alexander, Childs, Ray, White, Cherian, Dunn, & Herbert, 2020). Such a dramatic shift in learning within a short period of time proved to be inherently challenging. Faculty members who had never taught online before needed to quickly adapt and adjust their curriculum to meet the standards of an online course with little to no preparation. Students who had never imagined taking online courses were required to attend and engage in classes located on a screen in their bedrooms. In most cases, instructors and students initially held predominantly negative perspectives on the remote format (Shenoy, Mahendra, & Vijay, 2020). Many instructors felt the shift caused a significant disruption to the engagement and learning of their students (Wasik, 2020). Students grappled with inadequate internet access, the absence of quiet study environments, and increased personal, health, and social issues (Cherney, 2020).

As the pandemic continued over the course of a full academic year, perspectives on emergency remote instruction began to shift. Some instructors began to see inherent benefits to offering their course curriculum online (Li & Lalani, 2020) as they slowly became more acquainted with technology that augmented their curriculum. Some students began identifying the benefits of flexibility while online and expressed interest in enrolling in more online options post-pandemic (Gardner, 2020; McKenzie, 2021). Some institutions began to publicly express their plans for expanding their online course offerings in the post-emergency remote format, envisioning the potential for future new teaching formats for growth opportunities (NC SARA, 2021; Smith, Burke, & Gordon, 2021). Some administrators and faculty seemed to want to apply the lessons learned from the emergency remote period in an

effort to expand online courses in their departments and institutions; however, to date, few studies have investigated the particular strategies, skills, and tools faculty relied upon to teach effectively during the period of emergency remote instruction.

The Problem Statement

The Need for More Research on Remote Learning

Online learning is not a new concept; within the last two decades, with the rapid expansion of technology and access, the world of education witnessed a boom in e-learning (Barab, Thomas, & Merrill, 2001; Dhawan, 2020). In 2019, 46% of U.S. instructors taught an online course at some point; this figure contrasts with the 2013 participation rate of 30% (Jaschik & Lederman, 2018). Prior to 2020, institutions of higher education incrementally increased the number of online course offerings at their campuses. Pre-pandemic, administrators pressured more faculty to teach online because such courses were considered a cost-effective strategy for campuses (Bowen, 2012; Wingo, Ivankova, & Moss, 2017).

Initial studies on the impact of the remote learning environment paint an important but limited picture of the impacts of the emergency remote learning format. Researchers who have begun to study the learning effects of this period have discovered that students have a lowered sense of self-motivation and learning while remote (Trout, 2020). Additionally, course organization and structure have played a large role in students' satisfaction of remote courses (Bojovic, Bojovic, Vujosevic, & Suh, 2020; Walsh, et al., 2021). Satisfaction within a course, as opposed to academic outcomes, was more of an indicator of whether students would consider enrolling in future online courses (Clary, Dick, Akbulut, & Van Slyke, 2022).

Faculty members have expressed their devotion to recreating course content and curriculum to fulfill the learning outcomes of their courses within the remote format, but

many have also expressed the onerous challenge of doing so without any formalized training (Richter & Idleman, 2017). Instructors have struggled with learning how to effectively use technology in the remote setting in a way that makes the learning effective and engaging, and some initial studies have even indicated that faculty have become more disconnected and less supportive in the remote format than in-person (Ulmer, Watson, & Derby, 2007; Wingo et al., 2017; Rutherford, Karamarkovich, Xu, Tate, Sato, Baker, & Warschauer, 2021).

In the context of increasing online course offerings in the aftermath of the pandemic, significant research has emphasized the need for a set of established guidelines to help navigate the transition from in-person to online learning (Johnson et al., 2020). A growing consensus emerging among early studies on remote learning has indicated the importance of identifying proper methods and practices that worked well during the remote period to better prepare future educators for online teaching. Evaluating the perspectives of instructors who excelled within the remote environment and identifying the strategies they utilized within their remote classroom can be incredibly beneficial to the continued improvement and innovation of online learning (Hart et al., 2022).

The Study

This study sought to identify the lessons learned during the remote learning period. In the first phase, I analyzed course evaluations of instructors who taught at a public university during the remote period to determine the highest-rated instructors who subsequently formed the selection pool of interviewees for this study. These interviews then explored the instructors' lived experiences and identified the lessons institutions of higher education might gain from their perspectives during the emergency remote period. This project aimed to identify the tools, pedagogical innovations, and skills that well-rated instructors utilized

during the period of emergency remote instruction as well as highlight particular challenges the faculty encountered with respect to finding sufficient support and leveraging technological infrastructure within their departments, school, and institution.

As institutions consider the future of online learning at their respective campuses, gaining insight about successful faculty's strategies during the period of emergency remote instruction addresses a critical need in the literature. This study sought to answer the following questions:

RQ 1: Among the highly rated faculty members who taught remotely, what types of obstacles did these instructors face?

RQ 2: What strategies and pedagogical innovations did these instructors utilize to help them overcome the challenges of the remote period?

RQ 3: Which of these strategies and pedagogical innovations did the faculty members choose to retain within their future course offerings – whether in-person or online?

a. Why were those strategies worth retaining?

RQ 4: How did the remote experience shape faculty members' perspectives on the future of online learning within higher education?

Research Design

A qualitative research design that was informed by extensive quantitative data was employed within this study. The use of a multiple methods approach within a research study tends to shed more light onto a problem and provide more assistance to an investigator answering a variety of research questions (Creswell & Creswell, 2018). By combining multiple data sources, the study was able to delve deeper into the issues and gain a better understanding of the remote experience while incorporating insights from both students and

educators. In the initial phase, an analysis of teaching evaluation scores was conducted from a group of instructors (N=245) who rapidly shifted to an emergency remote teaching format without much warning or preparation. Through a quantitative analysis of the ratings completed by undergraduates who took courses during the remote period, I selected a subset of faculty members whose scores rated well above the departmental average.

Such a selection process led to the qualitative phase of the study, which proceeded to invite the top six to 10 faculty members within each department for a series of in-depth interviews. These individual interviews provided the opportunity for these instructors to provide an account of the instructional challenges they faced within the shift to remote education, and the methods they put into practice to overcome the obstacles as best they could. These conversations allowed for a richer explanation of the unique pedagogical approaches that these instructors chose to adopt during the health crisis with a rationale for why some chose to retain elements of their remote classroom in their future classrooms, whether online or in-person. The interviews also provided insights on these instructors' perspectives on the evolution and long-standing future of online learning within higher education.

Study Population and Sample

The first phase of this study contained a population sample of 245 instructors who taught within one school of discipline at a large public research university. The instructors were affiliated among 10 distinct academic departments housed within the same school of study. I chose this particular school as the sample site because it educated the largest number of students on campus with 33% of all campus bachelor's degrees originating from this school. Furthermore, with 10 academic units among it, this school had a diverse subset of

faculty members who taught across multiple different disciplines. The analysis of course evaluations generated a substantial dataset of 81 potential interviewees. Of the 81 invited individuals, 19 instructors agreed to interview to discuss their experiences teaching during the remote period from Spring 2020 to Spring 2021.

Study Significance

The study identified highly rated instructors and courses from the emergency remote period during the COVID-19 pandemic. Analyzing data from course evaluations and in-depth interviews, this study explored what high-rated instructors faced during this unique period, how they overcame challenges, and what strategies they introduced and retained in a post-emergency format with perspectives on the future of online learning. Their perspectives provide critical insight about emergency remote instruction, and this study's findings offer important implications for administrators and educational leaders currently considering the expansion of online learning. The perspectives and innovations that well-rated faculty members utilized and found valuable may be worth considering for other instructors who may want to improve or innovate within their remote instruction.

The findings from this study reveal several overarching themes. Participants were motivated to update and innovate their course content in unique methods because of their concerns for normalcy, organization, and effective learning. Instructors also employed more student-centered strategies within their remote classes to better encourage engagement and deepen their students' learning during an atypical learning format. They displayed their empathetic nature by communicating and staying connected with students in unique methods through a medium that was not susceptible to easy communication. All these actions illustrated that well-rated instructors prioritized their students' needs and by doing so, they

were engaging in an ethic of care and active learning pedagogy. In many cases, prioritizing the needs of students over other obligations had negative consequences for faculty participants' research. The integration of such strategies in teaching has been known to encourage student success and satisfaction (Eagan, Figueroa, Hurtado, & Gasiewski, 2012).

Notably, the successful adoption of these new strategies and innovations proved to be effective enough that some of these instructors planned to continue using them in future courses, illustrating a shift in educational paradigms for the first time in decades with the refreezing of new remote teaching norms. Moreover, in reflecting upon their experiences, these instructors provided helpful insights into their view for the future of online learning and what they believe should be considered in the context of this ever-growing field of education.

In the next chapter, the relevant literature on online learning is outlined with greater detail on the initial studies of the emergency remote landscape. In Chapter Three, the methodology, ethical considerations, and validity and reliability of this study are detailed. Chapter Four discusses the qualitative findings, and Chapter Five explores the implications and recommendations for future research.

CHAPTER 2: LITERATURE REVIEW

This study identified the lessons learned during the period of emergency remote instruction because of the COVID-19 pandemic. This chapter provides the context for this study within the ever-growing body of research related to online learning, emergency remote learning during the pandemic, and theories of effective teaching and organizational change within higher education. The chapter opens with a brief historical overview of online learning prior to the pandemic, and then describes how the views of online courses among faculty, administrators, and students have shifted over time. The chapter then offers context for the shift to emergency remote instruction, (Hodges & Fowler, 2020) due to the onset of the COVID-19 pandemic. Next, several studies are synthesized, documenting the experiences and reactions of students and faculty in the shift to emergency remote instruction. The chapter concludes with a synthesis of research related to effective teaching within higher education, the role of faculty members' ethic of care, and the importance of incorporating active learning strategies into instruction.

Historical Origins of Online Learning

The Evolution of Online Learning Prior to COVID-19

Distance education, which encompasses online learning, has existed for over two centuries (Moore, Deane, & Galyen, 2010). The evolution of distance education has comprised three generations of technological development: correspondence, telecommunications, and the computer (Garrison, 1985). Distance education first began in the 19th century as a basic correspondence model, where instructors sent lessons through the postal service (Siemens, Gasevic, & Dawson, 2015). The subsequent invention of television, telephone, and teleconferencing technologies promoted greater interaction amongst students

and teachers (Moore et al., 2010). With the introduction of the computer and worldwide web from the 1970s to the 2000s, the possibilities for online education exploded. The very first online course and program was offered in the early 1980s (Harasim, 2000).

The technical innovations of the Internet and institutions' development of technical infrastructure has enabled online learning to further evolve over the past two decades, as the function of learning online encompasses a variety of forms. Online courses offered asynchronously (pre-recorded lectures), synchronously (class meetings made available live on a telecommunications platform), and via flipped/hybrid formats (a combination of both asynchronous and synchronous learning formats) are the most common approaches (Imsa-ard, 2020). In 2019, 69% of the instructors who taught online did so asynchronously, while 3% taught synchronously and 28% taught in a blend of both (Jaschik & Lederman, 2019).

Within the last decade, online learning has become the fastest growing teaching modality in the world of higher education (Bowen, 2012; McCann & Holt, 2009; Wingo, Ivankova, & Moss, 2017). By 2016, 31.6% of U.S. higher education enrollments were within an online format, 33% of American students enrolled in some form of online learning, and 23.1% of faculty members reported having taught online at some point within their careers (Allen & Seaman, 2017; Stolzenberg, Eagan, Zimmerman, Berdan Lozano, Cesar-Davis, Aragon, & Rios-Aguilar, 2019). In the early months of 2020 before the onset of the COVID-19 pandemic, U.S. federal data indicated there was a 51.8% student participation rate in online learning (Smalley, 2021). Although overall U.S. college enrollment numbers decreased between the years of 2017 and 2020, the number of students who participated in some form of online learning during that time frame increased by 11% each consecutive year (Allen & Seaman, 2017).

Perspectives on Online Learning before the COVID-19 Pandemic

Institutions of higher education have greatly invested in the growth of online learning within the last few decades. Administrators at colleges and universities have promoted the online learning format for many reasons. One of the major reasons has been that online courses tend to be more cost-effective in higher education (Bowen, 2012; Cook & Steinert, 2013; Wingo et al., 2017). For one, online courses do not require a physical space, eliminating the need for a classroom or the restriction of enrollment caps. Furthermore, online courses tend to be taught by adjunct faculty who are typically paid less than tenured faculty (Bacow, Bowen, Guthrie, Lack, & Long, 2012; Cook et al., 2013). Such a hiring strategy also allows certain universities to be more selective in which faculty members they hire without being constrained by geography. Most online courses also tend to operate through a separate administrative wing at a university – such as through an extension program – charging students the equivalent or more than the standard tuition (Bacow et al., 2012; Cook et al., 2013). In addition to financial benefits, online courses also open the door for greater flexibility to students who balance personal and professional responsibilities while obtaining a college degree (Xhelili, Ibrahimi, Rruci, & Sheme, 2021). By offering more courses online, institutions realized that more students – regardless of location – may take their courses online, thus increasing enrollments and revenue at the same time (Cook et al., 2013; Otter, Seipel, Graeff, Alexander, Boraiko, Gray, Petersen, & Sadler, 2013).

Despite the increased growth and interest in online learning, universities have also grappled with several challenges within such a format. For one, online courses require a much larger investment of time, resources, and technological support for the instructor and institution (Cook, 2007). To ensure students have a quality learning experience in an online

course, instructors need to have competence in effective pedagogy and facility with the technology supporting virtual classrooms, as poor course designs and technological impediments could detract from course and instructor effectiveness (Cook et al., 2013). For online courses to be effective, they must be well-organized, instructors must communicate well with students in the format, students must maintain strong interaction with instructors, and students must receive continual feedback on their work to succeed and feel satisfied within the course (Dziuban, Wang, & Cook, 2004; Shea, Pickett, & Pelz, 2003).

Other concerns related to online education relate to communication between students and instructors, student engagement and belonging, mastery of learning outcomes, and students' likelihood of completing their courses. Poor communication between instructors and students can increase students' likelihood of feeling lost over course expectations and concepts (Song, Singleton, Hill, & Koh, 2004). Students also report higher levels of isolationism, lower self-efficacy, and lower motivation in online courses in comparison to in-person courses due to the limited opportunity for interaction and engagement with the instructor and classmates (Ozuorcum & Tabak, 2012; Zhan & Mei, 2012; Shen, Cho, Tsai, & Marra, 2012). Furthermore, studies have documented a prevalent difference of academic outcomes among online and in-person courses; an analysis of four-year summer enrollment data at a public research university indicated that student grades were slightly lower in online courses than in-person courses (Fischer, Xu, Rodriguez, Denaro, & Warschauer, 2020).

Additionally, the drop-out rate has historically been much higher for online courses in comparison to in-person courses (Ali & Leeds, 2009; Said, 2017; Dobre, 2010). In a 2016 survey at several hundred U.S. universities, most faculty governance leaders indicated skepticism regarding the academic quality and rigor of online and flipped courses compared

to traditional in-person courses (Ciabocchi et al., 2016). Pre-pandemic studies also made it clear that many instructors were reluctant to engage in forms of online teaching due to their concerns about modality changes, reliability of technology, skepticism of successful student outcomes and teaching effectiveness, workload concerns, and more (Bacow et al., 2012; Betts & Heaston, 2014; Bollinger & Wasilik, 2009; Wingo, et al., 2107). Several studies illustrate that instructors tend to be less satisfied with online teaching, especially when they experience technical challenges (Bollinger & Wasilik, 2009; Christianson, Tiene, & Luft, 2002). A 2013 study (Johnson) indicated that academics at research institutions viewed online technologies to have limited – and in some cases, *detrimental* value – to enhancing student learning. Some faculty believed that the use of technology was rarely meant for pedagogical reasons but instead used to captivate student attention (Johnson, 2013). Such matters related to online learning were at the forefront of institutions' and faculty members' minds prior to the COVID-19 pandemic.

The Shift to Emergency Remote Instruction during the COVID-19 Pandemic

In March of 2020, the world dramatically transformed as 19.9 million students and 1.5 million faculty members at colleges and universities across the country were forced to adapt to an emergency remote learning format due to the outbreak of the COVID-19 global pandemic (Hammond, Watson, Brumbelow, Fields, Shyrock, Chamberland, Barroso, Miranda, Johnson, Alexander, Childs, Ray, White, Cherian, Dunn, & Herbert, 2020). Such a circumstance differed greatly from the pre-pandemic online learning context; faculty and students had no choice in the format as they did previously. Notably, faculty members had to shift into the emergency online learning format with little to no preparation as compared to previous semesters, making the transition unprecedented and atypical for most.

Initial perspectives from instructors on the emergency remote environment were predominantly negative; many faculty felt the changes they had to make in the middle of their courses without much advanced notice caused a significant disruption in their course set up and their students' learning (Shenoy, Mahendra, & Vijay, 2020). A study found that 60% of their faculty reported feeling an immediate drop in student engagement during the shift to remote learning, and 70% of faculty reported feeling concerned about their own ability to deliver engaging and high-value learning experiences for their students (Wasik, 2020). The abrupt shift to remote learning caught many instructors off guard with a significant number of them feeling ill-prepared to teach remotely due to the lack of training they received in advance on how to teach effectively online (Walsh, Arango-Caro, Wester, & Callis-Deuhl, 2021). While many faculty members adapted on-the-spot to maintain pedagogical continuity as best they could, evidence indicates that many felt initial widespread uncertainty about the long-term implications of such a format (Walsh, et al., 2021).

The abrupt shift to remote learning also highlighted and exacerbated an array of inequities among students across the country, causing significant challenges to their learning and absorption of academic material (Stewart, 2021). Forced to adapt their entire academic routines to the digital platform, students grappled with the continuation of remote instruction throughout the entire 2020-2021 academic year due to the long-standing pandemic (McKenzie, 2021). Courses, orientations, recruitments, and graduations took place completely online to the dismay of many students who had expected to be on campus for the year. Predominant challenges for students included inadequate broadband internet access, unsuitable technological equipment, and the absence of quiet study environments (Cherney, 2020; Hammond et al., 2020). Some students also contended with economic and familial

strains amidst the health pandemic, while others faced intensified physical, mental, and social health concerns (Cherney, 2020). In some circumstances, legal action even arose during this timeframe, as some students sued their institutions for charging fees for inaccessible campus services due to campus lockdowns (Brandmeyer & Ritter v. UC Regents, 2020). Without doubt, many individuals – faculty and students alike – experienced extraordinary obstacles and stressors during the unanticipated learning landscape of 2020.

Shift in Perspective during Emergency Remote Teaching

Despite the challenges of shifting to remote instruction, within the course of a year, the experience gradually revealed varying and complex perspectives for students and faculty members alike. Having adapted to teaching remotely, some instructors started to recognize the potential benefits and continual challenges of integrating their curriculum within the virtual learning format (Li & Lalani, 2020; McKenzie, 2021; Shenoy, Mahendra, & Vijay, 2020). Some instructors began to perceive technology as the "great enabler" to a "pedagogical innovation" within higher education (Jung, Omori, Dawson, Yamaguchi, & Lee, 2021; Shenoy et al., 2020). In relying more heavily on technology for assessments, offering lectures in flexible formats, and providing supplemental online resources to their courses, some administrators argued that the pandemic helped technology-averse instructors to adapt and live in a postmodern teaching world, which some believed was desperately needed within higher education (Careaga-Butter, Badilla-Quintana, & Fuentes-Henriquez, 2020; Glantz & Gamrat, 2020). Others believed that the remote teaching experience was not a reason to change long-standing teaching traditions.

Articles surveying student opinion also began illustrating different perspectives on the future interest of online learning; in a survey of 1,413 college students, 57% felt significantly

more positive about online learning compared to the year preceding the pandemic (McKenzie, 2021). Such shifts in sentiment can be attributed to student and faculty members' opportunity for reflection and adaptation to online after a year of remote learning (McKenzie, 2021). Despite the ever-changing opinions and perspectives on the remote learning format, the literature on the long-term learning effect of the remote period is still in the early stages of development due to the occurrence of events. At time of this writing, approximately three years have passed since the initial transition to remote learning and several key studies have been conducted to understand the impact and effect the remote environment has had on higher education.

COVID-19 Literature on Remote Learning

Most of the literature chronicling the impacts of the remote learning landscape evaluates the perspectives of both faculty and students who lived through the experience. Initial research illuminates a variety of findings worth considering in the context of this study and the future of online learning. For one, several studies have illustrated that undergraduates have demonstrated greater difficulty in communicating and developing deeper connections with peers and instructors among the remote environment (Imsa-ard, 2020; Race, Jesus, Beltran, Zavaleta, 2021; Trout, 2020). One of the earliest conducted studies within the pandemic surveyed 92 students at a Pennsylvania public university; the findings indicated an immediate decline in self-motivation once the students transitioned into the remote format in March of 2020 due to the lack of face-to-face interaction (Trout, 2020). Many of the students attributed the lack of motivation to why they also believed the remote classroom was simply not conducive to effective learning (Trout, 2020). Several other studies conducted during the 2020-2021 years have also concurred that students found themselves more distracted,

isolated, lacking a sense of community, with less opportunities for hands-on experiences in their remote classes, which in turn decreased their level of intrinsic self-motivation (Imsa-ard, 2020; Zgheib, Ali, & Sabra, 2021).

Furthermore, the reconfiguration and organization of course material during the shift to remote learning has also shaped students' opinions about the emergency remote format. In a survey of 310 college students, 41.94% of them disagreed with the efficiency of their instructors' organization of lesson plans while in the remote format; 6.46% agreed while the majority, 51.6% remained neutral (Imsa-ard, 2020). Similarly, 20.03% expressed dissatisfaction with their instructors' clarity and organization of teaching and lesson delivery, while only 19.35% felt satisfied and 60.62% were neutral (Imsa-ard, 2020). Such feedback was gathered at the beginning of the pandemic; it is likely that student attitudes on faculty organization and lesson planning may have shifted in subsequent terms, as instructors learned how to better adapt over time to teaching in the remote setting. Nonetheless, the consensus among researchers has been that well-planned course organization is critical for engaging students and ensuring they are able to successfully follow along within emergency remote learning (Bojovic, Bojovic, Vujosevic, & Suh, 2020; Walsh, et al., 2021).

Interestingly, several studies have revealed that academic outcomes have remained generally consistent throughout the remote period. A 2021 comparative study of medical school students illustrated that pre-pandemic and pandemic performance and academic scores were similar across both instances, regardless of format (Zgheib et al., 2021). Thus, the authors of the study suggested harnessing the benefits of remote learning for future medical educational goals since there was no tangible disadvantage in academic outcomes. Other studies were consistent with such an argument, such as the study conducted by Race, Jesus,

Beltran, and Zavaelta, which indicated that students who took field courses in-person and online for their science courses had very similar academic outcomes, and that the online space promoted more "positive mental health breaks" for participants (2020). Such findings indicate that the format of the course may not be the sole denominator in determining student academic success within a course; other factors and considerations may apply.

Some of these initial findings coincide with the pre-pandemic literature on challenges to online learning; research has found consistent themes related to online courses lacking communication, losing the interest and engagement of students, a decline of community-building, poor course organization, and lack of pedagogical variety (Jaggars & Xu, 2016; Wang, Shannon, & Ross, 2013). Several studies from the remote period so far have developed suggested practices for better teaching based upon conducted surveys and interviews. In one 2020 study, researchers surveyed 168 undergraduate students on strategies they found helpful for effective remote learning within a STEM course at several University of California campuses (Garcia-Vedrenne, Orland, Ballare, Shapiro, & Wayne, 2020). Their results indicated that strong communication among students, greater usage of learning management systems in the course, employing flexibility, and the structuring of course content among organized modules while making use of pre-recorded content was incredibly valuable to student participants (Garcia-Vedrenne et al., 2020). In another study of 4,789 undergraduate students across the world, survey responses indicated that when instructors introduced a variety of different pedagogical approaches into their remote classrooms – especially active learning techniques – students tended to feel greater learning impact and classroom engagement (Nguyen, Netoo, Wilkins, Broker, Vargas, Sealfon, Puthipiroj, Li, Bowler, Hinson, Pujar, & Stein, 2021).

While faculty generally agreed that integrating new and improved teaching strategies into the remote setting was certainly advantageous to students, many face substantial burdens in actually integrating these student-centered approaches without sufficient training (Richter & Idleman, 2017). A 2020 study surveying 897 faculty and administrators across 672 institutions indicated that the rapid shift to remote education required the re-creation of new and innovative teaching strategies for most participants (Johnson, Veletsianos, & Seaman, 2020). Despite 51% of respondents indicating previous online teaching experience, over half of the instructors still reported a great need to adopt entirely new curriculum and methods in response to the unique circumstances presented by the pandemic (Johnson et al., 2020). Similarly, Walsh et al. (2021) found that prior experience teaching online did not serve as a sufficient substitute for having received formal training for remote instruction. Faculty who have previously taught online tend to have stronger skills with navigating the technology, report greater confidence in their technical skills, and show a willingness to continue teaching in such a modality (Ulmer, Watson & Derby, 2007; Wingo et al., 2017).

Beyond feeling ill-prepared for the abrupt shift to online instruction, instructors also encountered their own feelings of isolation. For example, a 2021 study illustrated that the transition to remote learning caused some instructors to become more disconnected and isolated from interpersonal teaching practices (Rutherford, Karamarkovich, Xu, Tate, Sato, Baker, & Warschauer, 2021). A survey of 137 instructors showed that a number became less supportive and more detached in the remote setting compared to face-to-face instruction (Rutherford, et al., 2021).

Future of Online Post Emergency Format

Notably, academic success within a remote course did not predicate the willingness of students to enroll in future online courses. The Clary study (N=525) surveyed college students on their desire to continue with distance learning after the pandemic; the data demonstrated no link between student academic performance and desire to continue learning online. Instead, results from several studies across numerous institutions have indicated that some participants have expressed ambivalence in enrolling within future online courses because of the negative experiences they endured during the pandemic period (Clary, Dick, Akbulut, & Van Slyke, 2022; Imsa-ard, 2020; Trout, 2020).

On the flip side, students who have expressed a greater interest in enrolling in future online courses have explained they would do so because of their positive experiences and overall satisfaction in their courses during the remote period (Bojovic et al., 2020; Clary et al., 2022). Students have also cited flexibility as an essential reason for why they would consider taking future online courses (Trout, 2020), suggesting that accommodation and adaptability were important considerations for students and future course enrollment preferences. Such information suggests how critical the remote learning period was in shaping the decision-making process for an entire generation of young scholars. Such a revelation indicates that other factors – such as the relationships developed within the remote classroom, environmental factors, overall student satisfaction and compatibility within the course, along with instructor and course effectiveness –could play an essential role in increasing the probability of students enrolling in future online courses (Clary et al., 2022).

From the faculty and administrative perspective, studies have indicated that other factors have also predetermined instructor willingness to teach in the online format again after the emergency format concluded. In a 2020 study of 622 U.S. college level world

language professors, survey responses and follow-up interviews confirmed that faculty members' perceived value of teaching online, self-confidence in teaching online, and the stressors they felt during the emergency remote period were the most influential factors in determining whether these educators would consider teaching their future courses online again in a post pandemic landscape (Jin, Xu, Deifell, & Angus, 2021). These findings re-emphasize the need for universities and their administrations to enhance their support for instructors while teaching in the online format. As the Rutherford, Karamarkovich, Xu, Tate, Sato, Baker, and Warschauer (2021) study indicated, institutions should establish improved guidelines, "best practices," or frameworks that would better enable faculty members to teach effectively in remote or post-crisis online settings.

The existing research prompts a re-evaluation of the current infrastructure for the successful future of online pedagogy, especially as the growth of online learning is expected to grow. Interviews with 35 community college administrative leaders across California demonstrated that most are convinced that colleges across the country will be increasing their online course offerings in a post-emergency world. They reiterated that the growth in online learning will primarily be driven by faculty and student interest and demand, but also to remain competitive among the higher education market (Hart, Hill, Alonso, & Xu, 2022). Thus, these leaders have expressed the strong sentiment that the pedagogical innovations faculty members have developed and integrated into their remote classrooms will be retained and used within future learning. Thus, they suggested that institutions must adapt and commit resources to supporting the new role that online education has assumed within contemporary academic settings (Hart et al., 2022). As evidenced by this literature, a long-term educational strategy will require more robust support mechanisms from institutions – as opposed to

relying solely on individual faculty members – to properly pioneer the growth and development of online learning in a post-emergency remote format (Johnson et al., 2020).

Effective Teaching: A Need within Higher Education

Research institutions have been attributed to prioritizing the production and publication of empirical research, and yet teaching and service remain a top tenet within the university mission. A 2008 study by Titus made the strong case for why faculty may feel like they must construct their course content to satisfy student expectations. The findings of 75 interviews with students and faculty illustrated that in some cases, instructors were sometimes held to higher accountability standards for customer service traits rather than teaching itself (Titus, 2008). The process of improving teaching quality has become slightly more challenging for instructors in recent years (Henard & Roseveare, 2012). Instructors, especially at public universities, have reported greater pressure to prepare a larger number of students – many of whom maintain a variety of needs and learning abilities – for the job market in the most productive and effective manner during a period of technological transformation (Gappa, Austin, & Trice, 2007).

Students have generally been shown to benefit academically from increased attention and empathy from the instructor (Gasiewski et al., 2012; Haras, Taylor, Sorcinelli, & Hoene, 2017; Sorcinelli, 2020). Regular and close interactions with faculty members inside and out of the classroom along with the student belief that their professor truly cares for them has been proven to show increased student motivation and better academic performance (Cotton & Wilson, 2006; Eagan, Figueroa, Hurtado, & Gasiewski, 2012; Pascarella & Terinzini, 2005). A 2020 study compared the results of a community college student survey measuring student-faculty mentorship levels, help-seeking attitudes, instructor relationships, and

academic engagement levels against academic outcome data such as GPA. The results of 751 surveys and interviews indicated that student-faculty relationships could positively influence academic achievement (Parnes, Suarez-Orozco, Osei-Twumasi, & Schwartz, 2020).

Ethic of Care Pedagogy

Identifying methods for faculty to effectively teach and craft courses in a compelling manner goes hand-in-hand with the ethic of care philosophy along with the practices they integrate into the classroom. Ethic of care pedagogy reflects a strong desire of the instructor to prioritize the student in several unique ways. Faculty who shift their focus away from themselves – as teachers – to their *students*, embody an ethic of care practice (Owens & Ennis, 2005; Noddings, 1984). Within such a practice, faculty place heightened responsibility upon themselves to empower their students' success; in other words, faculty care *for* their students – as opposed to simply caring about them (Hawk, 2017). They engage in specific and concrete actions that can affect the well-being of their students—from emotional, physiological, empathetic, intuitive, and imaginative supports (Hawk, 2017; McCarthy, 2010). For example, the amount of time a professor might spend answering student questions and understanding course content impacts students' perception of whether their professor cares for them (Eagan et al., 2012). Previous research indicates that students who believe their professors care for them show academic success, accomplishment, and engagement (Crombie, Pike, Silverthorn, Jones, Piccinin, 2003; Mercado, 1993).

Nodding's seminal work on the ethic of care argues that caring should be at the core of all education; she argues that engrossment, commitment, and a motivational shift from teacher to student are key characteristics to demonstrating an ethic of care in the classroom (Noddings, 1984). Notably, many of the examples on successfully practicing an ethic of care

are within the context of a traditional face-to-face classroom, as Noddings even mentions that the caring effect for others is maximized when in close proximity with other individuals (Deacon, 2012; Noddings, 1984). And yet, pre-pandemic literature argues that providing care in the online setting is *more critical* than within the in-person classroom because of the "faceless" nature of online courses (Adams & Rose, 2014; Deacon, 2012; Feldman, 2020). The literature also indicates that faculty may face greater challenges in practicing an effective pedagogy of care when online because they are more likely to face exhaustion and burnout given the expectations of being more flexible and available to students at any hour of the day within the online sphere (Adams & Rose, 2014).

Faculty who utilize student feedback and who strive to improve their pedagogy tend to do so because they explicitly want students to learn, want to generate a stronger connection with their students, and truly value their students (McGown & Graham, 2009). Formal methods of soliciting or recording student feedback have long been used as a method to improve teaching pedagogy in higher education (Alderman, Towers, & Bannah, 2012). By inquiring for student feedback and incorporating changes to their curriculum as a response to that feedback is an example of practicing an ethic of care pedagogy, because of their desire to put their students' needs first (Caldwell & Sholtis, 2012). The studies by Eagan et al. (2012) and Gasiewseki et al. (2012) on STEM courses illustrated that students greatly appreciated it when their faculty members went above and beyond to help them succeed. From staying late on campus to meet with students, to preparing review sessions, or simply getting to know the students better and form a meaningful connection – it made a world of difference for students.

Active Learning Pedagogy

Another well-known element of effective teaching has been the infusion of active learning practices into the classroom. Active learning practices tend to de-emphasize traditional learning styles where students learn passively while faculty talk at them; instead, they emphasize activities that require more student attention and participation into the classroom (Volpe, 1984; Michael, 2006; Collins & O'Brien, 2003). Students are directly involved with lecture through alternative means—from discussions, increased opportunities for questions, in-class writing exercises, and enhanced visual or demonstration-based instruction (Bonwell & Eison, 1991; Caldwell & Sholtis, 2008). In doing so, students become more actively engaged within the learning process (Tautz, Sprenger, Schwaininger, 2021). Literature on online teaching underscores this perspective, noting an increase in student engagement online when practicing active learning pedagogies (Khan, Egbue, Palkie, Madden, 2017). When students are engaged in their classes and in their course material, studies have indicated that they experience greater opportunity for learning achievement (Gasiewski, Eagan, Garcia, Hurtado, Chang, 2012).

An additional component of active learning pedagogy is providing continual feedback on student learning throughout the process (Hattie & Timperley, 2007). When an instructor provides an evaluation on student work, they can provide students with the opportunity to improve, and thus promote learning and academic achievement (Hattie et al., 2007; Tautz et al., 2021). Despite the known benefits, active learning practices have not always been easy to implement in the classroom. Providing effective feedback and activities that require active engagement of the students can be especially challenging in large lecture halls which limit interaction with the students and professor (Tautz et al., 2021). And yet, studies have indicated that the utilization of technology within the classroom may be helpful in

implementing active learning pedagogy into the classroom through the use of learning management systems and virtual reality integration (Tautz et al., 2021). Notably, the literature on online learning argues that implementing active learning pedagogy online is quite important in ensuring students do not fall into the notorious passive mode of learning (Brown, 1997). In a study of 83 university biology students during the pandemic, the findings revealed that the integration of active learning practices greatly benefited students and also improved their critical thinking, motivation, and positioning towards the science field (Rossi, Lima, Sabatke, Nunes, Ramirez, Ramirez, 2021). Hence, the integration of these practices would be very useful in the context of effective online learning.

Conclusion

The rapid advancement of distance education has significantly altered the landscape of teaching within higher education. The onset of the Internet era has accelerated this evolution, and it has only gained momentum with the shift to remote teaching during the COVID-19 pandemic. While the full impact of the remote experience continues to be considered, the field of education has expressed an interest in the expansion of online learning. Within this context, this chapter has laid the foundation for the initial studies that have documented the experiences and reactions of students and faculty members in the shift to remote instruction with additional research related to effective teaching strategies. These studies help set the stage for the current study and its goals.

CHAPTER 3: METHODOLOGY

Introduction

The previous chapters of this dissertation recounted the initial studies on the remote teaching environment and its potential effect on students, faculty, and the field of education. The consequence of the emergency remote teaching format, which is likely to have long-lasting impact for years, is still being explored and researched. This project sought to capture the insights of both college students and faculty members at a public university who navigated the complexities of remote learning. It focused heavily on faculty members who were well-regarded by students through teaching evaluation scores. The study sought to identify the challenges these instructors faced during the remote period, insights on how they overcame such obstacles, and what strategies they may have utilized and retained within their classes in the post-emergency remote period with thoughts for the future of online learning.

This study sought to identify the best strategies and suggestions worth retaining for the future of online and in-person courses by evaluating the practices that well-rated faculty members chose to take during this critical time. The following questions guided this study:

RQ 1: Among the highly rated faculty members who taught remotely, what types of obstacles did these instructors face?

RQ 2: What strategies and pedagogical innovations did these instructors utilize to help them overcome the challenges of the remote period?

RQ 3: Which of these strategies and pedagogical innovations did the faculty members choose to retain within their future course offerings – whether in-person or online?

a. Why were those strategies worth retaining?

RQ 4: How did the remote experience shape faculty members' perspectives on the future of online learning within higher education?

Overview of the Research Design

This was primarily a qualitative study in nature that was informed by extensive quantitative data. The quantitative component of the study provided a comprehensive dataset that helped provide the selection of interview participants for the subsequent qualitative phase. Integrating a variety of data sources together provided for a much richer and more nuanced exploration of this topic, using both the perspectives of students and faculty members to shape this study. The quantitative data first captured students' perceptions of course and instructor efficacy through course evaluation scores, resulting in a subgroup of participant candidates for the next phase. The qualitative phase of the study offered a comprehensive perspective on teaching within the remote environment through phenomenological interviews with faculty members. Specifically, instructors who received exceptional evaluation scores by students during remote teaching were selected for in-depth interviews to describe their experiences, successful strategies, and reflections on the future of educational practices.

The initial phase involved analyzing the scores of effectiveness for the sample of instructors who taught during the emergency remote environment (N=245). This quantitative analysis resulted in the discovery of a subgroup of instructors who scored above the mean within their respective departments. Subsequently, the top six to 10 faculty members per department were invited to participate in semi-structured interviews. This qualitative phase consisted of in-depth interviews with 19 faculty members who provided thorough insights into the pedagogical challenges they encountered during remote teaching, along with the

innovative strategies they implemented in the classroom to address such challenges. These interviews allowed for a much deeper exploration into the unique instructional practices they used during the pandemic, the reasoning behind the continuation of some of these remote methods for future courses, and a better understanding of what these faculty members believed would encompass the future of learning in a post-pandemic format.

Methodology

Site and Sample Rationale

This study was conducted among a U.S. public four-year research university which enrolls approximately 37,000 students per year. The study site focused upon one academic school of discipline within the university, which houses 10 different academic departments. The particular school was chosen as the sample site because with close to 6,000 majors, it serves as the largest academic unit on campus, awarding more than 33% of campus undergraduate degrees annually. For phase one of the project, 2,299 course evaluations were obtained for a total of 1,425 different courses that were taught (at least once) by 245 instructors between Spring 2020 and Spring 2021. The large number of evaluation scores were necessary to create a strong sample of well-esteemed faculty members who were rated highly by students who took their courses during the pandemic. The range of different instructors amongst the departments was also necessary to ensure that the various academic subfields was well-represented. Relying upon a large pool of potential interview participants strengthened the generalizability of the study and findings to other schools of discipline.

The quantitative data were stratified by department to easily identify the highest-rated instructor amongst the different academic disciplines. The stratification of evaluation score data by department was a deliberate decision based upon the understanding that course

evaluation scores may vary across different academic subfields. It was important to realize that each department within the study might employ different pedagogical approaches and maintain unique learning outcomes, and thus, it was determined necessary to group the evaluation data amongst the departments to allow for an appropriate comparison and distribution of courses among subfields. Among all ten departments, this process resulted in a sample size of 81 faculty members that were rated as the top- ranking within the entire school. These individuals were then invited to participate in the semi-structured interviews. Of the 81 invitations, 19 faculty members responded to a request for interview (23.4% success rate).

Data Collection

Data collection and analysis proceeded in two distinct phases. In the first phase, I gathered, cleaned, and analyzed course evaluation data from 245 faculty members who taught at least one course during the period of emergency remote instruction. These analyses identified the top-rated faculty in each department who then formed the potential pool of interviewees. In the second phase, I contacted potential interviewees to gauge their interest in participating in the study. The following sections provide additional details about these two phases.

Course Evaluation Data Collection

In the first phase of this study, student teaching evaluations were obtained for 245 faculty members who taught at least one course during the emergency remote period. These evaluations were administered and sent to students at the end of their semester through a university administered platform. The local information technology team at the school site

provided the aggregated data for this study in a Microsoft Excel sheet format, which included the following information:

Provided Course Evaluation Data

- Faculty Name
- Department Name
- Terms
- Enrollment Size of Course
- Mean Score for Question #1 on course evaluation
- Mean Score for Question #2 on course evaluation
- Mean Standard Deviation Score for Question #1 and #2
- Sample Size (Number of participants who responded to Question #1 and #2)

Question #1: I would rate this instructor as 0 1 2 3 4 5 6 7
**0 being N/A or unsure; 7 being among the best*

Question #2: I would rate the course effectiveness of this course as 0 1 2 3 4 5 6 7
**0 being N/A or unsure; 7 being among the best*

To maintain confidentiality and anonymity, individual instructors and course names were omitted from the dataset provided by the IT team. Instead, a unique identifier code was assigned to each faculty member and their respective department name by the IT team for data analysis purposes. The identifier code key was managed and maintained by the IT office, which was a critical contribution in later inviting participants for interviews in phase two of the study. The university revised its evaluation questions between the 2019-2020 and 2020-2021 academic years; thus, only Questions #1 and #2 remained consistent across both periods of time and served as the primary focus for the quantitative analysis of this study. The evaluation analysis was restricted to courses that were held between Spring 2020 to Spring 2021, which coincided with the site's emergency remote period timeframe. Instructor evaluation data was only considered if the faculty member had taught at least one time or more during the remote period; if the instructor did not teach at all during the terms provided, they were excluded from analysis.

Once obtained, the evaluation data was stratified by each academic department and organized into separate Microsoft Excel files for detailed analysis. For each of the 10 departments sampled, statistical data such as the mean scores, standard deviation, and the sample size (*N*) for the instructor and course ratings were compiled and arranged within separate columns and sorted by their respective course numbers (which were organized by row). In numerous cases, faculty members taught the same courses multiple times throughout the study period, and thus the aggregated averages of the means, standard deviations, and N values were computed and recorded within a separate column as well. This aggregated data then represented the overall mean and standard deviation for each individual course throughout the remote period, which then helped facilitate the successful calculation of Z-scores.

For each term that a particular course was taught remotely, I calculated a Z-score for the two ratings. The calculation of Z-scores for each course offered within the emergency remote teaching period allowed for a standardization of evaluation scores to take place across the different courses and terms. By converting the raw scores into standardized units, I then could compare the evaluation scores of different courses more accurately among the department, despite their different sample sizes and individual scores. The utilization of Z-scores made it much easier to identify the highest rated courses by sorting the data of each evaluation question according to highest and lowest Z-score; consequently, the highest-rated faculty members were easily identified in this process.

Calculating the Z-scores for each department's courses revealed that any Z-scores at the zero-figure corresponded to the course evaluation score matching the departments' average. In other words, positive Z-scores signified scores above the departmental average,

while negative Z-scores indicated below-average scores for specific questions. Courses with Z-scores greater than zero for both Question #1 and #2 were thus identified as top performers within their departments, surpassing the average departmental score. Using Z-scores helped create a baseline measurement to identify the highest-rated faculty members among the ten departments, which allowed for the development of a strong pool of candidates to select from for in-depth interviews.

Phase Two: Interview Data Collection

The quantitative analysis from phase one of the study helped inform the type of participants to purposefully select for interviews as part of phase two of the study. After conducting the Z-score analysis, the codes for the top rated six to 10 faculty members organized by department were then compiled into a new Excel spreadsheet. The aim of the interview data collection process was to obtain at least two interviews from each department to ensure an equitable distribution of participants among the ten different academic disciplines. However, bearing in mind that some participants may not respond to an interview invitation, it was decided to contact the highest rated six to ten individuals within each department (depending how large each unit was in terms of faculty-size) to ensure a 20-30% response rate. Such a selection criteria resulted in a total sample size of 81 faculty participants who were the highest-rated individuals amongst the school of study. The list of 81 identifier faculty and course codes were then emailed to the school's IT department, who maintained the list of code keys for each faculty members' actual names and emails.

The IT team played a pivotal role in the recruitment strategy of this study. The staff members were provided with a pre-written email and recruitment flier to send to all 81 individuals (see Appendix B and C). Both the email and flier informed the potential study

participants that the PI was not aware of their identities, congratulated them on their highly rated courses throughout the remote period, and invited them to self-volunteer for a 45-minute interview to discuss their experiences of teaching remotely either over Zoom or in-person. By signing up to interview, the participants were informed that they would be permitting the PI to associate their identity and interview responses to their evaluation scores. Within the same day that the IT team sent out the recruitment email, several interview appointments were scheduled within the week. After each appointment was scheduled, the PI contacted the IT team and asked to provide the identifier codes associated with the scheduled faculty members' interview name, so that identities could be attributed to evaluation scores and interview responses.

After the first 10 appointments were scheduled and confirmed, it became apparent that several departments had a larger acceptance rate to interview than others. In an attempt to distribute the sample of interview participants as equally as possible among the units and to increase the total sample size of interview participants, a second recruitment email reminder was sent by the IT team the following week to the same list of faculty members. Among these efforts, a final total of 19 faculty members confirmed their participation in the study with representation of at least one faculty member from nine out of the ten departments. The 10th department was the smallest department within the school of study; with the limited number of faculty members that taught within that unit, let alone who taught within the remote period, it was determined to exclude that department from this study.

Table 3.1

Table of Departments, Pseudonyms, and Number of Interviewees Per Department

Department	Pseudonym	Total Number of Interview Participants

Department A	Andrew Kevin	2
Department B	Clara Elizabeth Patricia	3
Department C	Derrick	1
Department D	Gina Liam Sophia	3
Department E	Ingrid	1
Department F	Benjamin Quincy	2
Department G	Frank Hilary Jeffrey Nathan	4
Department H	Mary Oliver	2
Department I	Ryan	1
9 Total Departments		19 Total Interview Participants

Semi-structured interviews with each participant were conducted within a month, with 14 participants choosing to meet over Zoom (74%), and 5 participants choosing to meet in-person (26%). Interviews typically lasted between 45-60 minutes each and allowed for a deeper understanding of the participants' experiences.

The interview protocol (see Appendix D), comprising of 16 questions that followed a semi-structured format, allowed the participants to chime in on the planned themes but also allowed them to flow with the conversation as interesting revelations came up naturally. At the start of each interview, consent for recording and transcription were acquired, and participants were informed of the study's aims ("This study is investigating the lessons of the

remote teaching environment during the COVID-19 pandemic. This interview will be used to better understand the teaching methods and strategies that were used in the remote period"). Some major themes discussed among the interviews included a brief background of the participants' teaching experiences and classroom structure prior to the pandemic, subsequently exploring the transition to emergency remote teaching and its effects on the classroom. Participants recounted specific challenges they encountered teaching in this period, the strategies that helped facilitate their successes in teaching during this time, and which of these strategies they would consider retaining in their future classes. Additionally, interviewees provided an explanation for why they believed their evaluation scores were above the mean for their department, and to provide their perspectives and recommendations on the future of online teaching, along with their own planned approach to instruction in a post-emergency format.

Qualitative Analytic Approach

The aim of the interviews was to delve deeper into the experiences of remote teaching of faculty members who had been rated significantly higher in their evaluation scores than most of their colleagues within their respective academic departments. It was evident that these instructors were doing something unique in their teaching to be able to score at the top of their departments, and it was critical to ascertain what, if any, lessons could be garnered from these individuals who were clearly doing far above the average, according to their students. As part of the data analysis process, the interviews were originally recorded with the online recording tool, Otter AI. After completing all the interviews, the audio recordings were subsequently uploaded to Temi, a transcription service to assist with the transcribing process. All transcripts were reviewed and edited thoroughly for accuracy.

After each interview was properly transcribed, each transcript was uploaded into the MaxQDA software to undergo coding analysis. A combination of both deductive and inductive coding strategies were used to help facilitate the organization of data, identify patterns, and form categories (Saldaña, 2021). Initially, the transcripts were read multiple times, and color-coded to identify emerging groupings and similarities based on topics ranging from pre-pandemic perspectives on online learning, classroom structure during the remote period, encountered challenges, innovative practices, remote learning perceptions, high evaluation score factors, and post-pandemic views of teaching. Among these categories emerged other interesting topics related to general advice on high-quality teaching, views on evaluations, and advice on future remote learning. In this process, notes and memos were taken, and any similar perspectives were grouped within a subcategory, which then became a foundation for preliminary themes. Once initial coding was completed, the transcripts were reviewed and color coded again to form larger buckets of themes. This continuous cycle of coding and analyzation was helpful in the organization of data, development of overarching themes, and eventual discovery of major findings.

Ethical Considerations

An ethical consideration my study presented was the collection of course evaluation data in advance of interviews to develop a suitable pool of candidates to interview for follow-up. In my outreach for interview participants, I conveyed to potential participants that their identities were coded by random identifiers by the school's IT team. I also made it clear that I contacted them via email without knowing their identities as I had contacted them through a third party – specifically, the IT department, who managed and maintained all course evaluations for the entire school of study. I made it clear that should any potential

participants not want to interview, they could not respond to the request for an interview, which would ensure continual anonymity of their identity given the limited data I was provided within the evaluation scores. Furthermore, I assured potential participants that confidentiality was critical to this study, and thus I assured them that their pseudonyms would be used in place of their names throughout my findings section. All interview protocols and evaluation scores were saved and secured within a password protected online digital folder (google drive) as well as a password protected external hard drive (for backup purposes). I reminded participants that participation within the study was voluntary, and they could stop the interview at any point in time without consequence in mind. The study did not offer any payment for participation.

Positionality

With my employment as a department administrator at a large research institution, I was cautious to ensure my role in this research would not impact the participation or transparency of the interview process. While my position was considered middle management, I was aware that the "administrative" connotation might evoke a sense of reservation among some faculty members to share their experiences as candidly. Thus, in the recruitment email and at the start of every interview, I was forthright about my employment, but was also sure to highlight my capacity as a researcher. My hope was that by highlighting my role as a researcher, these faculty members who were employed within a research institution would be more forthcoming to self-volunteer for interviews to help advance the mission of research and teaching. By explaining the reasoning for the study, noting the unique experiences that faculty and students maintained during the remote period, and expanding upon how their narratives might serve as lessons for the post-emergency learning

environment, my aim was to create an environment of credibility and trust. By emphasizing anonymity within the study, I intended for interview participants to feel comfortable and forthcoming about their opinions without concern for administrative repercussions or conflict with higher management.

Credibility & Validity

To enhance the creditability of this study, I analyzed different types of data within two phases: course evaluation scores and interviews with highly rated faculty members. Utilizing two different forms of data collection (quantitative and qualitative) among two sample subsets (students and faculty members) strengthened the reliability and validity of this study. The two phases of data collection and analysis were intertwined with one another; the course evaluation analysis helped develop and inform a stable pool of high rated instructors for potential interviews. Thus, the combination of two datasets provided for a much deeper and nuanced understanding of the remote learning environment, allowing for potential generalizability to other schools and research institutions.

While the course evaluations built a strong foundation to help me identify a pool of highly rated faculty members, I was also cognizant of validity threats that are associated with student evaluations of teaching. Literature on student evaluations indicate that they may reflect pre-existing biases towards certain faculty groups based upon gender, race, and attractiveness (Boyle & Schmierbach, 2021). Additionally, the research reveals that certain behaviors and actions may impact the way students choose to rate their instructors – for example, bringing cookies to class may influence ratings more than actual teaching strategies (Vargas, 2001; Basow & Martin, 2012). While such arguments were carefully considered in shaping this study, it was also recognized that student evaluations have served as a method to

improve teaching methods while being one of the only ways students are able to provide honest and anonymous feedback (McClain, Gulbis, & Hays, 2017; Ballantyne, Borthwick, & Packer, 2000; Kember, Leung, & Kwan, 2002). I made sure that all evaluation scores were considered for the same faculty member; if one course may have not rated as highly as others, I considered it but did not necessarily eliminate it from the study.

During the interviews, I was mindful of the fact that if faculty members knew they were highly rated amongst their other colleagues, they might be more influenced to present a more favorable perspective about their remote teaching experiences. While I did congratulate and acknowledge each participant on obtaining high evaluation scores, I did my best to steer the conversation towards a balanced discussion of successes but also difficulties that made the remote experience inherently challenging for them. I did this in an attempt to capture a wholistic picture of their perspectives on teaching remotely, reflecting on the positives and negatives. This approach was my way of attempting to mitigate biases as much as possible.

As a graduate student who lived and learned through the pandemic myself, I also ensured to keep my own biases in check. Having taken classes remotely during this unique period, it was interesting to hear the challenges that faculty members faced that I had not considered from the student perspective, but I did my best not to influence any part of the conversation and did not provide any of my own thoughts on the matter. I also ensured to pilot the interview protocol with three faculty members from my graduate institution to ensure the questions were well-crafted and would accurately obtain the data I needed to answer my research questions. After obtaining helpful feedback on how to rephrase or organize my questions, I revised my questions before meeting with my participants. I relied heavily upon the rich descriptions and narratives that faculty members provided to code and

generate themes and eventually identify findings, as opposed to relying upon my own opinions and experiences.

Finally, I was considerate of the fact that even though student evaluations are helpful in obtaining feedback about a course, they are not the only metric by which to identify course and instructor effectiveness. I recognized that certain courses may not have received as high scores on their evaluations as others due to factors beyond the instructors' control such as illness or connectivity issues. While the interviews provided deeper context to this study, I also acknowledged that their commentary was not representative of every instructor's experience during the pandemic. Thus, this study is limited in making broad generalizations for all courses, faculty, and institutions of higher education.

CHAPTER 4: FINDINGS

Introduction to the Chapter

This dissertation aimed to understand the lessons of the remote teaching environment during the COVID-19 pandemic. The project analyzed student evaluation data to identify high-rated faculty and understand evaluation patterns during the remote period. Interviews were conducted among faculty who received high evaluation scores to understand their experiences and the lessons they may have gained during a unique period in educational history.

This chapter presents findings from the qualitative data collected via one-on-one interviews conducted with 19 faculty members whose evaluation scores during the emergency remote period were above the mean for their department. Participants volunteered with their own name and contact information after an anonymous recruitment email was sent through the IT department. The initial recruitment email congratulated them on their high evaluation scores and invited them to interview via Zoom or in-person. When volunteering to interview, participants also agreed to associate their identities with their evaluation scores. All faculty participants were given a pseudonym.

Analyses of the interview data identified five overarching themes. First, concerns about providing the best quality educational experience for students during remote instruction took precedence for faculty, which motivated them to improve course content and maintain organization within their courses. Second, faculty members discovered and adopted new student-centered pedagogies to better engage students within their remote classes. Third, faculty relied upon direct student feedback, class assignments, informal online spaces, and

overcommunication techniques to better connect with students while remote. Fourth, new strategies gained from the remote period helped revitalize courses, as faculty chose to retain certain elements that worked well in their future teaching. Lastly, participants reflected upon the differences between in-person and online courses, standards for online learning, and future considerations for online teaching within higher education.

This chapter focuses upon specific challenges and strategies that were most frequently expressed by participants, were the most distinct practices in comparison to their previous teaching practices, and had the most significant influence among their future pedagogical approaches. These findings are discussed in more detail within the following sections.

Profiles of Faculty Interviews

The qualitative phase of the study collected data from a range of faculty among nine academic departments. Of the 19 faculty interviewed, 16 were classified within the "professor" series (senate research and instructional faculty), and three were classified as "lecturers" (non-senate instructional faculty).

Table 4.1

Description of Faculty Participants

Title & Rank	# of participants
Professor	8
Associate Professor	6
Assistant Professor	2
Lecturer	3
TOTAL	19

Two of the 19 faculty in this study previously taught online prior to the pandemic. One of the two faculty members taught an optional summer course asynchronously prior to

the pandemic, and the other one taught a hybrid "flipped" course during the regular academic year, where lectures were pre-recorded and posted online with required in-person course meetings. When the pandemic began, all participants were required to teach their courses remotely due to the health emergency. Of the 19 interview participants who taught during the emergency remote period, five chose to teach in a flipped classroom format (a combination of asynchronous lectures and synchronous class meetings); seven chose to teach in an asynchronous format (pre-recorded lectures), and seven chose to teach in a synchronous format (live lectures at a determined time, on an online communications platform).

As part of the initial interview protocol, participants were asked about their perceptions to online learning prior to the pandemic, and after the emergency remote format had concluded. Prior to the pandemic, most faculty (47%) either had entirely negative perceptions of online teaching or no opinion on it at all (37%). After the emergency remote period ended, more than half (58%) had primarily negative views about online teaching while the remainder expressed mixed feelings. When the university re-opened for in-person instruction during the 2021-2022 academic year, 42% of faculty offered their courses in a combination of both online and in-person formats, primarily due to the default of dealing with the aftermath of the pandemic. In the winter of 2022, the university mandated that the first half of the quarter be fully remote again due to the resurgence of the Omicron variant of the virus. All participants who taught in the flipped classroom during the remote period (26%) decided to retain the flipped format after the remote period ended and expressed their intention to remain in such a format going forward. All but one of the 19 participants returned some, if not all, of their courses to the in-person format after the remote period ended. The one participant who kept all their teaching online after the remote period ended

explained that a disability prevented them from safely returning to the classroom. However, they expressed their intention of eventually returning some of their courses to the in-person classroom once they had the physical ability to do so.

Concerns for Normalcy and Quality Motivate Faculty's Course Preparation

Interviews with participants illustrated that well-rated faculty members were concerned about maintaining quality and normalcy within remote classes. Despite the many challenges and stressors that came along with teaching remotely, these faculty felt compelled to continue providing the best educational experience for students, mainly because they felt they owed it to the students. As one faculty member described, "look, it sucked. I didn't want to do it. But if I'm going to do it, I'm going to do it *right*." For most of these faculty, it meant sacrificing hours to update course content and improving organizational systems to make remote learning as positive and effective as possible for students.

Motivations to Improve Course Quality

Each of the 19 participants mentioned implementing new processes or procedures into their remote classroom because of the mandatory online circumstance. Close to two thirds of the participants pre-recorded their lectures, and they all estimated significant time investments ranging from a few dozen to more than 100 hours to re-format lectures, learn new software to record and edit, and upload the content to their online course website. One participant estimated that he worked on developing high-quality videos for eight hours a day, six days a week during a ten-week quarter, which was not typical in preparing for his normal in-person class. Another faculty member reflected that he had not worked as much in preparing his pre-recorded lectures since serving as a teaching assistant in graduate school over 20 years ago.

These faculty justified the extra time they spent revitalizing their course content for the online medium because of their commitment to providing students with quality content they could easily consume and feel drawn to, as opposed to tuning out within a medium that was susceptible to distractions. One participant, Benjamin, reflected that he worked much harder for a product that he felt was much worse in comparison to his in-person course, but he still felt the need to devote extra time to develop and deliver high quality online lectures for students who had no say in the teaching format. His comment reflects a sense of empathy and obligation:

> Yeah, I mean, that's a freedom I have because I'm tenured. I'm a full professor. So my view was, my job is safe. And these kids [were] in an extraordinarily vulnerable time. So I have flexibility that they don't have. So I was willing to do a lot of extra stuff to try to make things easier for them, but it was really very hard. – Benjamin.

Here, Benjamin reflects upon his own position in comparison to the vulnerability of his students, who had no say in what format they wanted to learn. The self-realization and empathy he had for his students motivated Benjamin to put in the extra hours to make his lectures as clear, easy to follow, and high-quality as possible despite the challenges it added to his plate.

The concern for ensuring quality course content also drove some faculty to step outside their typical expertise and teaching comfort zones. Some participants learned and employed new technological tools within their content, utilizing teleprompters, camcorders, greenscreens, and editing software to make the content as professional, polished, and high-quality as possible. Several participants explained that the challenging step of learning new technological tools to incorporate new technology into their classrooms was well worth it because it was the closest they believed they could get to replicating a solid in-person course. Liam, a lecturer, outlines the process, time, and expense it took on his end to develop high-

quality online content, motivated by the inclination to provide students with the closest experience possible to an in-person course:

> I bought a camcorder-- a decent one… I thought at least it should look as nice as possible. I got a microphone so at least they could hear everything. I tried to at least... get the lighting right so I'm not standing there with a shadow across my face. Of course, my wife disagreed with that saying, 'why are you doing all this?' And I said, 'I want to look good. I want [it] to look fine'….For the most part, I tried to stick strictly to what the plan was, which [was] basically, 'it's a class that you're just happening to watch on your laptop rather than in-person.' *I tried to keep things as much as possible to what a regular class would be*.-- Liam.

As evidenced by this quote, Liam's attempt to keep his remote course as similar as possible to an in-person course required so much more preparation than most people would expect, so much so that his own wife questioned the worth of the extra work. And yet, it is part of what led Liam to believe he was rated so highly by students.

Another senior professor, Nathan, noted that the abrupt transition to online learning offered an opportunity for a comprehensive overhaul of his course material, as certain elements in his courses had become outdated over the years. Prior to the pandemic, the demands of his full-time research responsibilities left him little room to review and update his course content. Consequently, despite teaching the same courses for several decades, he often found himself delivering the same lectures with minimal to no preparation, occasionally leading to inaccuracies or references to outdated data. With the advent of the pandemic, however, he opted for a flipped classroom approach, which incorporated pre-recorded lectures. With this new format— which kept a permanent public record of his teaching—he placed a renewed degree of ownership and responsibility upon himself to ensure accuracy and relevance of his content. He explains his thoughts in the following quote:

> …It was so intense because I think I realized when you're lecturing in person, it's like...I can wing it. And if I flub something, I can just talk about something else or whatever...just cover that [mistake] up. But once it's going on tape…oh man, it is so different. Because you realize…even if nobody watches it…it has to be closer and more accurate. So I was prepping for each of the videos, and that took hours because… I guess in the past I was sort of winging it, just because I knew the topic well enough. So, [with the pre-recording]… to get it right. To make sure that everything was presented well…each lecture took a long, long, long, time. Some topics I had to actually research. For [one of my classes], it was a great learning experience....researching more about [certain topics]. And then having to record it…I really got into it.—Nathan.

As evidenced here, the physical act of recording and publishing lectures online increased the urgency to revise and update his course materials. Additionally, Nathan reflected that the whole experience was quite positive for him personally despite the extra steps it took to record, as it encouraged him to delve deeper and research topics he was not as familiar with. The pandemic, therefore, served as a catalyst to not only review pre-existing content, but to also re-learn and continually update his content.

Another faculty member echoed these sentiments, stating that the pressure of recording lectures prompted him to meticulously verify the accuracy of the information presented in his PowerPoint slides. In the process, he discovered discrepancies in dates and proceeded to correct them. While reviewing content, he took the opportunity to incorporate new images, supplementary information, and links to more multimedia in his PowerPoints to enhance the quality of his presentations. Six other faculty mentioned they introduced supplementary forms of multimedia into their synchronous and asynchronous courses as well, such as YouTube videos, podcasts, and visuals into their presentations. Jeffrey described the ways in which he felt multimedia enhanced students' experience in his course:

> So I made the class…more heavy on all that multimedia content that I knew they'd like from online….I think they retained the information better…. They like it, it's informative, and enough to hold their attention. And so that's really the key—to be able to augment any online teaching with a good source of multimedia. – Jeffrey.

As illustrated by this example, some of these faculty members aimed to make the online experience as smooth, engaging, and educational as possible. Many shared Jeffrey's sentiments and believed that by adding more multimedia content into their lectures, it made their content much more engaging, lively, and easier for students to consume in an environment that was not naturally attuned to being as dynamic.

As evidenced by these examples, the pandemic cued a strong motivation for these well-rated faculty to reflect upon their teaching, strive for accuracy, revitalize content, learn something new, and improve their materials—all for the purpose of maintaining quality education for their students, even at significant personal and professional sacrifice and discomfort.

Motivations to Improve Course Organization & Maintain Normalcy

Many of these faculty also expressed strong motivations to make their courses well-structured, consistent, and organized because they believed it helped deliver quality education in an exceedingly chaotic time during a health emergency. As one faculty member, Frank, put it, "against the backdrop of the pandemic where everything sucked, having the *consistent* hour and a half twice a week [on Zoom with students] was affirming. You could feel people were excited about it." Many of these faculty believed that promoting normalcy, organization, and routine was the right move in the most unnormal of times. Another faculty member, Elizabeth, explained this notion by saying, "I didn't try to overload my course with a lot… I had a friend of mine who was constantly putting *tons* of new material to make [their course] more interesting. I thought that was just making it more difficult…let's just let them be, you know?" In her reflection, Elizabeth believed that keeping the materials, rigor, and

pacing of her courses the same as her pre-pandemic courses was the best organizational strategy to make her students succeed in such an unprecedented time.

Many of these faculty members strived to keep things as normal and organized as possible because they believed the online medium inevitably decreased the natural level of organization and communication among students and faculty compared to in-person courses. Several participants noted that their in-person classrooms pre-pandemic served as a helpful informal space to answer impromptu questions and provide students with key information on exams, assignment due dates, and other administrative announcements. Thus, the physical classroom helped students stay organized and encouraged them to stay on track. However, without a physical classroom in the remote period, many opportunities for informal communication were diminished or eliminated, resulting in more chances for disorganization and for students to "fall through the cracks."

Due to this loss, these instructors felt a greater need to anticipate questions and ensure their course materials, websites, and expectations were as clear, structured, and organized as possible to prevent students from falling through the cracks. Mary, a senior professor, details the extra steps she took to make her remote course as clear and organized for students as possible:

> I went through a lot of work to build a course website that was easy to navigate, that had all the readings linked where you could go and see what was due that week, what readings were assigned... where the lectures [were] all in one place… I sort of laid out a roadmap of 'this is what you need to do this week, these readings, these lectures, answer this question, this and such.' I really tried to be very organized... *Much more so than I had ever been before* in letting students know what the expectations were.

Mary took extra care on her part to be much more organized, clear, and forthcoming with students on course planning and expectations within her remote course than she had ever

been during her in-person courses. Her motivations were driven primarily by her concern that students might get lost and confused within her remote course.

Despite the extra work and resources it took to provide more intentional organization and structure to their material, the participants claimed their efforts were well-worth it, as 10 of them attributed their high evaluation scores to maintaining good structure and organization during the pandemic. A few participants felt that being organized was one of the simplest and yet one of the *most* critical methods of maintaining normalcy for students while in the remote format. Six faculty members pointed to their well-developed Canvas pages as reasons as to why they believed students rated them so well; four discussed that setting expectations up front with students helped ensure there were no surprises down the line and said that the students verbally praised them for it. Three said they listed out how many slides and minutes each of their pre-recorded lectures were by topic and module so that students could plan schedules accordingly and take breaks while watching. Gina described in detail how students benefited from her course structure in the quote below:

> I think one thing that really helped students was…having a *consistent* structure, so that students knew where to find things. I think a TA gave me a comment that he liked how everything was very clearly outlined…I actually was also teaching at a local community college during the winter and spring of 2020. And they actually made all of their faculty take a four-hour "how to teach online" course. And that was just *huge* for teaching me how to structure things on Canvas…. I typically get comments [from students] about the organization and that the structure is good, that students like that predictability, they know when the assignments are due, they know that the course has a rhythm to it. And so I think that was huge, particularly again, in the remote environment where everybody's routines are upended.

Similar to Gina's preparation, Sophia indicated that the pandemic forced her to prepare and anticipate student questions and concerns in advance because there was less opportunity for live questions and answers, especially since she taught asynchronously. Thus, she took it upon herself to develop a FAQ google document for each assignment in her

remote classes, which she continually updated throughout the quarter as new questions and concerns came up. This extra organizational step was something that benefitted her in the long-run, as she stated that she continued to use the FAQ sheets even when returning to the in-person classroom. This extra step also provided critical support to her students, as they could refer to a sheet of anticipated concerns and questions as opposed to simply accepting their sense of confusion or loss. Given that all these faculty members were the highest rated within their school, these examples point to the fact that course structure and organization were incredibly important to them in maintaining quality education during the pandemic.

Faculty Adopted Active Learning Strategies to Engage

The pandemic and the requisite shift to remote instruction created numerous challenges for the participants in this study, as they recognized the need for innovation in their pedagogical approaches. Faculty understood that they could not simply replicate their in-person courses in an online setting. They ultimately changed how they taught and how they made themselves available and accessible to students to create as high-quality of an educational experience for them as possible.

Chunking Of Lecture Content

Faculty who taught in the synchronous and asynchronous format during the pandemic arrived at the quick realization that straight lecture for three hours a week was not an effective online teaching strategy. Four participants who taught asynchronously explained this problem and highlighted the importance of "chunking" their pre-recorded content to not overwhelm or bore students in any one sitting.

> …if you're just giving *straight* lecture and expecting them to watch in an era where everybody's got a zillion screens to begin with, you're not gonna be able to hold anybody's attention…and you're not gonna learn anything if you're bored and are tuning things out…so if you're going to get people to watch and to pay attention to

> you, you gotta meet them halfway and do some things that make it more digestible. This is kind of a parallel with the news. There is this fine line where you want to give people as much news content as you can. But then if you [give too much], people will change the channel.—Jeffrey.

As conveyed by the news metaphor, too much information in one lecture segment ran the risk of students tuning out or getting distracted. These faculty members realized this and decided to alter their approach accordingly by breaking up course content into smaller segments.

Among the 12 participants who taught exclusively or partially in asynchronous format, 10 faculty decided to draw from a variety of pedagogical strategies during their live scheduled class meeting. These faculty deliberately chose to chunk the class time into different segments—some lecture, group work, individual activities, and presentation opportunities. In many cases, these participants felt that the remote environment simply lacked the connection and energy to allow for straight lecture, but some of them also reflected that the same principles applied for in-person courses. As Frank advised, "You've gotta have some breakups and some time for them to talk and participate. You've gotta have energy, you've gotta have stories. I mean, a lot of the same things apply in-person too, but I feel like remote makes it even *more* so."

Mary, who conducted her pre-pandemic classes in straight lecture format, explained her decision to change her pedagogical approach to introduce more segmentation and breakups among her scheduled class time because she felt it was "unproductive to talk *at them* for an hour." Despite the live nature of her synchronous meetings, she said it was not effective to lecture the entire time because she could not see how students were receiving and responding to the information when most of them kept their cameras off. Another instructor agreed with Mary, stating that the lack of visual facial reactions made it feel like he was "talking to a wall of black boxes." Thus, breaking content up into digestible pieces and

activities was not only helpful to the students but also to the instructors. Requiring students to engage with material by participating in different activities helped faculty gauge how students were processing and understanding the material. Another faculty member, Nathan, agreed with this sentiment, saying, "I think online, if you were to do just straight lecture, where students are just listening to you talk….I think that is just *deadly*." When asked why he believed it would be deadly, he responded, "Well…if that's the *only* interaction they get…just me lecturing and taking a few notes and signing off…that doesn't get you very far, I think. It's getting into the interactive stuff… that is *much* more interesting." While Nathan acknowledged that he also had interactive activities built into his pre-pandemic classes, the remote experience made it even *more* obvious to him that pure lecture was simply not an effective pedagogical strategy for him in the long-term.

Based upon the remote experience, many other participants concluded that chunking course content into segments in combination with other classroom activities worked so well that they retained their newly adopted strategies in future courses, no matter what format (online or in-person). As one participant noted, "You must keep students engaged when they are there. So asking them to do something, as opposed to just talking at them; I think this is true in general when students are there in-person as well." While active learning strategies existed pre-pandemic and were even highly promoted from administrators at universities such as the one in this study, the emergency remote environment really brought to light the awareness to well-rated faculty that chunking and segmenting class time into different sections and activities can better encourage and capture the engagement level of students.

Flipping the Classroom

Five of the 19 faculty interviewed described their experience teaching in a "flipped" classroom during the emergency remote environment. For them, the flipped classroom format entailed a combination of both pre-recorded lectures (usually one for students to watch earlier in the week), and then synchronous class meetings at least once or twice a week. They explained that from their perspective, the flipped course option provided students with the best of both worlds; on the one hand, students had the flexibility to listen to pre-recorded lectures in their own time and pace, providing them with the general scope of the week's topic. On the other hand, students also had the benefit of live interaction with instructor and peers, providing them with an opportunity for active engagement in classroom activities and participation within the classroom.

When asked why these faculty chose to go with the flipped format during the remote period, a few participants had fascinating reasons for choosing the duality of both modes. Ryan decided to switch to the flipped format because he felt that his scheduled once-a-week, three-hour course would be too tiresome, not cohesive, and not as engaging fully online. He stated that he had felt this way about his in-person course, but it took a pandemic for him to act upon this concern and change his pedagogical approach. During the pandemic, he pre-recorded videos of himself discussing course content, which he shared in advance of scheduled class meetings. Those videos served as "half" of the course time (equivalent to ninety minutes). Then, he scheduled once-a-week course meetings on Zoom for ninety minutes, where students would use the time to participate in live discussion with one another, listen to guest speakers, and engage in various group activities. Here he describes his reasoning for the change in format and his long-term plans for teaching in this format in the future:

> I kind of want to adopt the hybrid style for the long term…. I don't think I would go back to the old structure again. To me it feels so ineffective to the students where they lose. This is the modern-day student…after the 45-minute to one-hour mark, they kind of start tuning out things. I don't think the students like being in a room for three hours...which I totally get. And I got that a little bit in my comments even before the pandemic. And so my thinking was...how can I combine a little bit of the technology? We have Zoom, recording features, the transcription... We have all the cool technology with us. How can we translate that to helping out the students, helping them learn better, helping them have more reinforcement?

Ryan felt this new flipped structure was more reliable and effective for him when remote (as opposed to a three-hour long class offered once a week), especially in a time when distractions and shortened attention spans were magnified during the remote period.

Another faculty member, Benjamin, chose to teach in the flipped classroom during the pandemic because he was already teaching in such a format pre-pandemic and found it worked exceptionally well for him. As the only faculty member in this study who taught in a flipped format prior to the pandemic (and the only one in his department to do so), Benjamin reflected that teaching at a large research institution which enrolled 200 or more students in many of his courses made him realize years ago that straight lecture during class time was just not an effective teaching strategy. As he explained his reasoning he said, "I cut out large lectures…because it's easy for me [to lecture at them]; but if *they* don't learn, it's not effective. And [when doing straight lecture during class time], attendance really goes down the toilet by the end of the quarter. So, by the end, I'm lecturing to only 40% of the students, and they're not absorbing." Benjamin made it mandatory for students to watch his pre-recorded lectures in advance of class time, and when they came to class, they mainly worked on group activities and exercises he prepared for them. He used this time with his TAs to walk around the room (or pop into Zoom rooms during the pandemic) to answer questions and concerns throughout the live meetings. As evidenced by his quote, Benjamin's concern

to ensure students were truly grasping and learning in his courses outweighed any desire to make teaching easier on himself. He reflected that the flipped classroom encouraged higher in-person attendance, where he found he had an 80% attendance rate by the end of the quarter as opposed to the 40% he had from an only-lecture format. Due to this experience, it made sense for Benjamin to continue in the flipped format during the pandemic; the only thing that changed was that the synchronous class piece transitioned to Zoom meetings instead of in-person meetings.

Providing More Individualized Feedback

Another strategy that faculty participants utilized during the remote period was providing students with much more feedback on assignments and academic progress throughout the course. Most of these instructors believed doing so contributed to greater engagement and interest among students. While not possible to do for all courses (especially those with large enrollments), at least three participants mentioned they went out of their way to provide students with much more personalized attention and comments on assignments in smaller upper division courses. While most mentioned they utilized this method pre-pandemic, they stated that they did it *more so* during the remote period to provide the students with the best educational experience possible during a highly unusual time. They attributed the extra attention they provided to students to their high evaluations, as they believed it made students much more attentive and responsive in class.

Frank, who taught an upper-division writing course, reflected on the benefit of providing his students more individualized feedback during the remote period:

> Because we are a big university, [students] don't get a ton of individualized attention. So, when you get an individual faculty member invested in them as *individuals* and giving them personalized feedback on... Like, one of the things I did is…I would grab a sentence or paragraph and say, "here's an example of your best writing and then talk

> about it." And then I would take either that or something else and explain how it would go from good to great. I would say, “here’s how I would try to make this even better.” And the students are like blown away by that. The idea that I'm like sitting there scouring their papers, finding their examples of good writing and then trying to make it their best writing and show them what I mean when I say like, “you can do this. It's here, you just need to push and see it and keep practicing. Like, keep writing a bunch of stuff and we'll figure it out together.”—Frank.

Frank’s strong inclination to provide students with personalized attention and feedback was part of what he attributed his high evaluation scores to during the pandemic. While he acknowledged that this teaching strategy was key to being an excellent instructor (online or in-person), he also made it clear that he overemphasized this element in his online teaching pedagogy to make up for the loss of “serendipitous occasions” that would normally occur in a live in-person classroom.

Mary, who also taught her upper division writing course remotely, also believed the strategy of providing more feedback to students on their assignments and writing helped her obtain higher teaching evaluation scores from students. While she did acknowledge that, “you’re supposed to give more feedback in a writing course anyway,” she also stated that she worked *extra* hard with her TA to ensure the feedback was provided to students and in a timely manner in hopes of them taking that feedback and improving in their next drafts. Mary wanted to provide students with the best potential to improve their writing despite being in a remote format. In reflection, she said the student reaction to her actions was noticeable; she saw students were more encouraged to improve on future assignments when they witnessed the level of care that she and her TA were putting into improving their writing. All these efforts were stemmed by a strong desire to foster engagement, interest, and high-quality learning in an extremely vulnerable environment.

Remote Learning Inspires Faculty to Enhance Their Communication with Students

The pandemic inevitably transformed the ways in which students not only learned, but also communicated with one another and with instructors. While a challenge to connect in the online medium, the situation motivated faculty to creatively adapt and communicate with students in ways that were unprecedented compared to pre-pandemic. In many cases, these strategies required more work on the faculty side; and yet, most believed the extra steps were necessary and worth pursuing, as many pointed towards their higher evaluations as evidence of success.

Student Feedback & Assignments as a Method of Communication

More than half of the study's participants reflected that student facial reactions in the classroom were a crucial communication tool they utilized pre-pandemic to assess how students were processing material. In many cases, these faculty also used facial reactions to alter content spontaneously, as Kevin reflected that reading student reactions allowed him to identify whether he needed to shift on the fly to clarify confusion or move onto the next topic if it was clear that students were following along. In the pandemic however, with limited facial interactions in the remote environment, many faculty were forced to improvise with new communication strategies.

Eight participants polled students one or more times throughout the quarter to get a sense of what their students thought of the material and lectures. One faculty member, Clara, mentioned that she went out of her way to email a two-minute survey to her class every week after remote lectures to solicit information about what concepts students were struggling with and what questions were still outstanding. She then took that feedback and dedicated up to an hour each week to re-explain the content that was cited as confusing and provided answers to questions that came up in her surveys. The extra step it took for Clara to obtain this

information was motivated by her strong desire to clarify and communicate confusing course concepts to students in a setting that did not naturally provide such opportunities, demonstrating an ethic of care to her students.

Four more faculty members also mentioned that they solicited feedback from students to appropriately shift their teaching approaches on the spot as students needed. Such faculty signaled flexibility in adapting and adjusting their course structure throughout the term, which at times meant going beyond their comfort zones and tolerating more work if it encouraged greater learning and engagement. In one such example, participant Hilary explains how she communicated this tactic to students, "I just asked the students—'do you like asynchronous sessions? Do you want to do this live, or do you prefer me to record? I'll do either way. I don't care. If you want me to record, I'll record.'" In Hilary's case, the class responded to her questions in a live poll and more than half of them stated that they preferred to keep class in the live synchronous format. Thus, she adhered to their preference and maintained her entire course in the synchronous format; the feedback served as a communication tool to Hilary that students appreciated her current instructional approach. However, Hilary's flexibility and willingness to alter her format based on direct student feedback was reminiscent of faculty who were willing to communicate with students in creative ways and take swift action based upon their feedback, no matter the cost and time to their own workloads.

In addition to asking for explicit student feedback, many of these same faculty found themselves relying on other communication strategies – such as course assignments and assessments – to identify how students kept pace with the course. Below, Sophia highlights the struggle she experienced in not knowing how her students were receiving her curriculum

because she taught asynchronously and was unable to properly decipher and question students on their understanding the same way she did when she taught in-person. Here, she mentions how much more heavily she relied upon assignments and discussion posts than ever before to properly gauge and appraise how her students were reacting to her curriculum:

> I think the biggest [issue] was not knowing how they were responding to the material. Because you don't get that instant [feedback]... it takes a little bit more out of them to actually approach you to ask a question, because they have to post on the discussion board, or go to your office hours. That's more effort than just raising their hand in class. So, I really didn't know – *until they submitted an assignment or a discussion post* – to what extent they had understood the material, or what they liked, or how they were responding to it... a lot of it was based on writing essays and things like that. So it wasn't until I read their assignments that I knew how they were doing. – Sophia.

Like Sophia, three other faculty members mentioned their increased reliance on assignments, quizzes, and assessments during the remote environment to identify how students were reacting and understanding course content. While assignments and assessments were always used to assess student understanding of content and curriculum pre-pandemic, faculty increasingly incorporated these tools into their courses during the pandemic to overcome some of the challenges associated with the lessened human interaction they had in the remote environment.

Informal Communication Spaces

As many faculty reflected upon how challenging it was to interact and connect with students during the remote period, six of them mentioned going out of their way to communicate with students outside of regular class time in unique ways to ensure they could maintain a strong connection with students. One such participant, Ryan, mentioned that pre-pandemic he expected *students* to come to him if they had questions or challenges throughout the quarter; however, during the pandemic, he felt the "roles had reversed," as *he* went out of

his way to schedule one-on-one meetings with every single student enrolled in his upper division courses. While he acknowledged that it required much more work and energy on his part, he justified doing so during the remote environment because it was “so isolating” and felt that he owed it to them.

Many of these instructors believed that showing up for students in creative ways outside of normal classroom time was key to building relationships with them. Three faculty members discussed how they chose to share personal details of their own lives with students to relate to students and appear more approachable in an environment that was not naturally conducive to connection-building. Below, Nathan describes how he chose to remain on Zoom way past his scheduled class time to provide an opportunity for students to chat, connect, and collaborate with him and each other:

> After each class, I would just stay online…and if anybody wanted to keep talking…of course there were questions about the [course] topic…but then people would drop off and there would remain a core of five or ten students who would just start talking. And everybody was so isolated- including myself- and I told them later, it really helped...to just be able to talk about what's happening in the news and then to talk about who has pets or...it was all, "how are you coping?"...that kind of thing. And I remember…my wife would call me for dinner because we were staying on for like two- sometimes three hours just chatting… I remember one time we did a Google Map thing and everybody would show us where they grew up. A student from China [was in my class] and we zoomed in [on the map] and she was explaining, "oh, this was the elementary school I went to..." I think the students... I'm sure they appreciated that. – Nathan.

The extra hours Nathan dedicated to staying online after class provided an incredible window of connection and communication for students, which was likely not even possible during the regular in-person format. The personal interaction these students obtained in getting to know one another and a faculty member was extraordinary. While Nathan reflected that he took these extra steps due to the isolation, it likely made a world of difference for some of these

students and could be attributed to why Nathan's evaluation scores were one of the highest in his department during the pandemic.

Two other instructors similarly also chose to discuss aspects of their personal lives on Zoom; one developed special "pet office hours" in his remote courses where students joined him and his pets to discuss course content and to ask questions about his dogs. Another instructor, Patricia, chose to share details of the traumatic incident she and her family experienced in losing their home to a house fire during the pandemic. She explained that she chose to share these intimate details of her life to better connect and build a personal relationship with her students. All these instructors justified taking these extra and unique communication steps because they believed the pandemic lessened the natural chance for regular connection and engagement with students. A couple instructors pointed to the pre-pandemic "serendipitous situations" where a student might come up to the professor after class and walk with them to their next destination while connecting about topics outside of lecture time. In the remote period, they argued, such opportunities were essentially extinct.

Reduced opportunities for natural connection building negatively impacted students academically; six faculty members reflected upon the increased challenge of drafting compelling letters of recommendation for students they barely knew in the virtual environment. As a result, many of these instructors sought to create more personalized interactions and develop informal modes of communication with students in hopes of resembling in-person experiences as best they could in such an environment.

Increasing Communication with Students

Another strategy that several instructors attributed to higher evaluation scores was providing students with more information than was normally expected within the in-person

classroom. About one-fifth of the participants argued that amplified and repetitive communication should be a requirement for successful online learning given their experience teaching remotely. They justified overcommunicating because they believed that the online environment placed greater pressure and accountability on students to remember administrative details, making it much easier for them to fall through the cracks. In Gina's initial remote course, she noticed a decline in the quality of students' final examination papers. She linked this decline to the diminished guidance and spontaneous reminders that are inherent in the face-to-face format. Consequently, Gina enhanced her communication by providing more reminders and repeating guidelines more frequently in her later remote courses to mitigate this problem. Patricia and Sophia also stated that they received many more requests for extensions during the remote period than they ever had before, because more students seemed to forget about due dates and deadlines. While these instructors acknowledged that they became a bit more lenient on deadlines during the remote period, they also verbalized this as a new challenge to their teaching:

> ...I do think there is a problem with [the online environment]… which is [that] it puts the onus a little bit back on the student. So they are now responsible for watching the lecture. They're responsible for doing the assignments on time. And so it's a little bit [more] handholding...there's a little bit of kind of [having to] guide them through that process. And some of the students, I would say, struggle a little bit with that format and require a little bit more attention, I would say.—Ryan.

Given these new challenges, these faculty believed that the best way around the problem was to simply overcommunicate.

Oliver had taught asynchronously online prior to the pandemic and strongly believed in the overcommunication strategy. He taught his first online course in 2015 where an academic online learning specialist advised him to repeat important information and announcements multiple times throughout his pre-recordings, even if it seemed redundant. In

reflection, he believed it was a brilliant strategy which he continued to use throughout the pandemic and advised other faculty members to do as well:

> My advice is to…*always* overcommunicate things [in an online course]. So if an exam is coming up...or [telling them] where they should be in the course. You know, [I recommend] two or three reminders spaced out [during the lecture], not just once. Because *you have to overcommunicate when you're online*…and having signposts like, "where should you be now?" Or, "right now you should know these concepts before I go on." So really like handholding and walking them through, and not just "here's the stuff."

While Oliver and a few other participants acknowledged that repeating the same information sometimes felt like "overkill," they still felt it was worth it in the long-run. It was a "safer than sorry" strategy in ensuring students would not get behind and fall through the cracks.

Strategies Retained: The Benefits to Teaching Remotely

New Course Content, Organization, & Pedagogical Strategies

A dozen faculty members in the study mentioned that the new course content they implemented within their remote classrooms ended up being positive additions to their courses. In their cases, the pandemic served as a catalyst to review outdated course content and refresh their lecture materials. Some faculty revamped PowerPoint slides; others used the remote period to completely eliminate paper from course activities by offering examinations and assignments exclusively online (if they had not done so already); others found that the new multimedia they introduced during the pandemic helped augment course concepts better than pre-pandemic, and thus they chose to retain the new content. Many of these faculty acknowledged that they faced numerous challenges in making such updates during the pandemic and that sometimes the new content was not replicable to the in-person experience; and yet, they also acknowledged that some of the changes they made were greatly needed in their courses after years of keeping their systems and lectures the same. Benjamin reflected

upon how he used the lessons of the remote learning experience to improve his course activities and assignment submission system to make his future courses more streamlined, efficient, and easier to manage:

> There were things that when I put everything online, I improved a lot. Like I think [about] the online quizzes. I think I was able to improve some of the in-class activities. So I think that whole process made me reflect on everything and I did improve things. I got rid of a lot of in-paper things. So the students now are just good to do homework, take a picture, upload it, and that's so much more efficient and we lose papers less often. So, there were improvements that happened because I did things online and the students just got comfortable with it. They don't think it's weird anymore.—Benjamin.

Several other faculty members shared similar reflections about retaining various tools and strategies they had developed and deployed during the remote period. For instance, three participants planned to continue using an online software they discovered during the pandemic called Perusall, which required students to read and annotate articles and texts, making them more prepared and engaged to discuss readings in class. These faculty had no previous knowledge or experience using Perusall prior to the pandemic, but stumbled upon it in seeking new methods to help augment their courses during the remote period. As one participant, Patricia, described, “when the pandemic began, I basically had a panic attack on how to do online teaching…and Canvas lists different software that it interacts with, so I basically just went through all the options and began trying them out...” and that is how she stumbled upon Perusall, which ended up fitting her needs. She continued to use the software even after returning from the emergency remote period and planned to keep it within her future courses. Three other faculty members mentioned their intention to continue using Google Docs to facilitate student group work and collaborative projects, while also providing FAQ sheets for students that they could continually update throughout the quarter. Four

faculty members expressed their interest in maintaining the newly incorporated video clips and multimedia content in their courses for the long-term to better supplement lectures.

Many faculty also expressed their intentions to maintain the new and refurbished organizational systems they developed during the pandemic when returning to the in-person classroom due to the personal benefit they found in using such systems. One faculty member, Derrick, discussed the value of discovering the software Gradescope during the remote period, an online AI service set up to automate the grading process in an online platform. Upon reflection of the remote experience, he said the usage of such a program made his workload "way more streamlined…and made grading way more efficient," and thus he planned to continue using the service into the future, even when returning to in-person classes. It is critical to distinguish that such decisions to retain certain systems or organizational structures from the pandemic were not based upon a pedagogical or student-focused reason. In a few instances, such as the one Derrick describes, the reasoning for retention was based purely upon personal reasons to help expedite the grading process and streamline the workload for the faculty member.

In another example, Andrew, initially expressed strong reservations about online teaching. His pessimism remained the same even after the remote period ended and was eager to return to the in-person classroom; however, he also acknowledged that the remote situation encouraged him to learn how to better organize his material by his increased use of the online learning management system, Canvas. After dedicating numerous hours to integrating his course assignments and curriculum into Canvas during the remote period, he decided it was well-worth retaining the use of Canvas for assignment submissions, grading, and lecture posts. When asked about his decision to retain Canvas for the long-term, he

mentioned that Canvas helped him reorganize the structure of his course and assignments in a way that made more sense in the long-term. “The assignments that I had been using pre-pandemic were kind of stale. I changed them up as I went along, but the core idea in each of them was the same. So, the pandemic serendipitously gave me an opportunity to rethink that. And I just continued with that.”

Keeping the Flipped Classroom

After the emergency period ended, all five of the instructors who had chosen to teach in the flipped format stated that they all planned to continue teaching in the flipped format, even when everyone was permitted to return to an in-person modality. These five instructors justified their decision by explaining that the flipped classroom worked better pedagogically and strongly resonated with their students, making it a compelling reason to maintain the format even after the emergency period ended. As one participant explained, pre-pandemic in-person classes rarely provided for the opportunity to delve deeper into discussion, as class time was mostly reserved to cover broad concepts. However, using the flipped classroom format during the pandemic made these instructors realize that students had the chance to explore broader concepts in advance of live class time, and synchronous classroom sessions were used to delve into a deeper discussion over what was already watched on their own time. Here, Nathan explains this notion:

> The flipped classroom *gravitates* so much better. It's a hundred percent better because, when you think about it, normally you walk into the classroom, the students file in, you talk about your lecture, your PowerPoints, they take some notes. You talk for 60 minutes, right? There are like four questions and you answer them. And then they file out and you go home. [In the flipped format], even if only half [the class] is seeing the videos [in advance], the intensity of the [live class] discussion is just so different…being able to go a little bit off topic, like for example, bringing Ukraine into the course topic, which normally we wouldn't have time to talk about...or [one time], this one student had lived in Singapore and we were talking about Singapore

> and her experience. Oh it's just invaluable. The depth of the discussion is *light years* ahead of normal.—Nathan

As evidenced by this quote, it took a worldwide pandemic for these instructors to realize that if students were going to have explicit lecture-based instruction, they could do that anywhere. However, facetime with faculty and students was invaluable, and they believed it should encompass deeper discussion and group work. Such a realization caused them to completely change the format of their classrooms forever.

Enhanced and More Flexible Communication Strategies

A major benefit to the informal communication space was that it opened the door for many students to learn and participate in academic activities that might not have been possible pre-pandemic. In one such example, one faculty member was forced to move her weekly research seminar meetings to Zoom during the pandemic; in doing so, she invited her undergraduates to join and listen to the presentations, which was something they never were able to do pre-pandemic given scheduling, limited space, and timing conflicts. Below, Ingrid details the incredible benefit the remote environment provided to undergraduates in terms of expanding their academic life outside of the classroom:

> This is a healthy silver lining that's occurred and it's part of learning how to communicate…and being in touch with our [international] colleagues…it has some real benefits. One of the things from a student perspective...is that [the seminar] is now open to all students…. What's wonderful about it is that across this whole international group of people, there are the oldest, most distinguished senior buddy buddies, and then the whole life continuum. And then you have the very youngest students. And so I think the opportunity for the youngest students to sit in a room every week with these other people who they never would necessarily interact with. They've read their work, but they wouldn't interact with them...it's exciting. It's been very good—Ingrid.

As indicated here, Ingrid sent her seminar Zoom link to all her students to allow them to tune in and participate in discussion with the most senior experts in her field from around the

world. The ease and flexibility of using an online medium opened doors for students to participate in academic life in ways they could never do before.

Another cited benefit of integrating online technology within education was the added flexibility it offered in scheduling meetings. Among busy schedules, the online platform eliminated location constraints, allowing faculty and students to meet virtually at any time. For instance, if a student lived further from campus, they no longer needed to commute to campus to meet with an instructor to discuss exam results; instead, they could conveniently schedule a Zoom session at a mutually agreeable time. Gina added that in the post-remote period, "some students aren't [always] on campus…so I offer the opportunity to meet with students on Zoom and that has been good because for some of them, as there is no way they would be able to physically come to my scheduled on-campus office hours. But I can meet with them remotely, and so I think that has helped boost that interaction." Throughout the pandemic, all faculty utilized online tools such as Zoom for office hours. Notably, at least five participants planned to continue using Zoom for office hours, review sessions, and group interactions post-pandemic because of the increased flexibility and value it offered to them.

Another faculty member reflected that using Zoom during the remote period helped him rethink and restructure his entire office hours system. During the pandemic, Frank chose to hold his office hours immediately before and after his synchronous course sessions on Zoom based upon the advice from a colleague. It made the most sense for him, as he justified that students were already making the time to attend his live lectures anyway. "This is something that [a colleague] taught me... to basically build office hours *into* the class. So, half an hour before class, I just show up early and then whoever gets there comes and you can talk. So, I do that now [in-person], like half hour before class. I just show up and sit

outside and then whoever comes. You get a ton of people. And in-person I get even *more* [students attending]." As evidenced, this strategy was so successful during the pandemic that Frank and a few others decided to retain this new strategy when returning to the in-person classroom to maximize facetime with students.

Another feature of Zoom that faculty found particularly helpful was its live chat feature during synchronous lectures. Seven participants expressed their surprise and new-found appreciation for the Zoom chat, commenting on how it served as an indicator to faculty on whether students were truly engaged in class by asking students to respond to questions in the chat on the spot. Quincy mentioned that the Zoom chat provided an easy opportunity for introverted and shy students to participate in class. Nathan expressed shock in how for the first time in his decades-long teaching career he was able to literally see in writing what students were thinking in class by reading the Zoom chat. He describes his appreciation for this tool in the following quote:

> The chat function on Zoom was incredible… they would be having a conversation among themselves, even while we were talking, but they were also contributing. In other words…students are constantly doing the chatting. And then of course I would get a copy of it and I would read it later. It was just fascinating to me because I told them...for the first time in my life I was hearing sort of a running record of what students were actually thinking. Because sometimes they would comment on somebody's comment or they would say, 'oh no, that's BS' or whatever. And in a regular class, of course you can't [see that]...maybe you see them nodding or rolling their eyes, but you really don't know what they're thinking. So it was kind of fascinating—Nathan.

Nathan's anecdote illustrates the value- both to students and faculty- the live chat function provided during the pandemic.

Because of its incredible benefit, four participants expressed a strong desire to retain the Zoom chat within their in-person classroom after the emergency period ended but

discussed their struggle in how to do so successfully in-person. Clara expressed her difficulty and frustration in figuring out how to retain the positives of this newfound tool:

> I wanted the chat box. That was one sense of loss I had in moving back into the classroom…it was that the students were now back to kind of sitting and just passively listening and not interrupting. And I *wanted* the interruptions because it really added a lot of color to the lectures.

As indicated here, Clara and other participants appreciated the newfound benefits of the Zoom chat box, and were greatly disappointed in not being able to easily retain such a feature as easily when returning to the in-person classroom. While these faculty acknowledged that the Zoom chat feature was not a substitute for in-person class discussion, 40% of them mentioned how useful it was in providing an extra level of connection, contribution to class discussion, and an invitation for more engagement in a setting that might not naturally provide such interaction; and yet, none of them found a way to successfully integrate it in the in-person classroom.

Strategies To Consider: Suggestions in the Future of Teaching Online

Given the exceptional nature of having to teach online during an epidemic, all participants were given the opportunity to reflect upon their experiences and verbalize their beliefs in what they thought the future of online learning might be. One of the largest takeaways from their reflections was that - although most developed a newfound appreciation for teaching remotely- ultimately, they all chose to revert some, if not all, of their courses back to the in-person format, after the emergency period ended.

Considering the Goals and Target Population for Online Teaching

A major reflection that these faculty members brought to light while discussing the concept of online teaching in higher education was making sure that there was a strong justification to teach college-level courses online at a research university. Several participants

acknowledged that while the remote period provided them with the skillsets and know-how to teach effectively online, they also felt there had to be a stronger and more compelling reason to teach online. Knowing how to do so was simply not enough of a reason. Derrick indicated this point when he said, "I think we should be really careful about *why* we're doing [online]. There should be a good clear reason for why it's happening. We need a justification, like a cost versus benefits analysis." While Derrick indicated his own appreciation for online teaching due to the greater flexibility it brought to him, a faculty member- in his view, that was not the right rationale to keep teaching online.

Derrick's concern in offering online courses strictly for the benefit of the instructor was validated when another faculty member, Jeffrey discussed his online experience:

> I thought online was an inferior learning experience…it's kind of boring to just sit there and listen and watch somebody. I tried my best to make it entertaining. I threw jokes in, but it's hard to do just an hour of straight lecture and keep watching it.

Ironically, despite disclosing that his online class was an inferior learning experience, Jeffrey stated that he still planned to teach one of his lower division courses online in the future. When asked why, especially after expressing his belief that it was an inferior learning experience, he said:

> Well…I realized it was a lot easier for the professor than I thought…and especially in a class that is massive…in-person, it takes a lot of energy, it's like a performance and so you're really getting into character in a way, that doesn't come naturally. Whereas when you record, I am home and there is no need for recovery. So that's it. When you ask me why I keep doing it—*it's a hundred percent for selfish reasons*.

This admission directly proved the point that Derrick was trying to make; if reverting courses to online was plainly based upon faculty comfort, then Derrick and three other participants in the study believed it was worth reconsidering and perhaps dissecting the reasons for teaching online a bit more thoroughly. This perspective reveals that some faculty decisions to adopt

remote teaching strategies for future teaching use was based upon their desire to streamline their workloads rather than prioritize the pedagogical needs of their students. Although this viewpoint was not widely held, it was noted among discussions with three different participants.

On the flip side, four faculty members mentioned that they believed the online environment greatly benefitted their students, and notably, a very specific student population, and thus was justified to keep offering courses online. Below, Gina describes her thoughts on the matter:

> There's a place for online teaching…thinking particularly about non-traditional students, or people who have families and people who are working. That's the thing…a lot of people took on jobs during the day and so they couldn't come to class. And so I think there's definitely a need for it for a particular population of students. I'm a huge advocate for it for a particular population of students.

As evidenced by this explanation, Gina and three other participants recognized the need for more flexibility for certain students who may be considered "non-traditional" in that they were working full-time jobs, raising their own families, and simply unable to commit to a set class-time during the day. Thus, the online option for future courses would meet this need for flexibility for this student group. Interestingly, Oliver, who also believed that online courses benefitted low-income students who could not come to campus often, sounded a bit conflicted in his reflection, as he later stated, "on the one hand, it's hard for low-income students to make it to campus; but on the other hand, they may not have great internet connection at home. So, there's access issues that come into play too." As evidenced here, despite the desire to help certain students by providing a format they believed was more flexible, some of these faculty also recognized that online can have its own set of limitations for the same set of students.

In line with considering the future of online learning, several participants also stressed their view that greater analysis and research should be conducted on the *academic benefit* of courses being online before making any large-scale decisions or even providing their insights on what the future of higher education should look like in a post-pandemic world. Andrew highlighted this point by reflecting:

> So there's an imperfect thing that happened here… we all got this really important deep crash course in online education that happened to coincide with like the worst thing that's happened in any of our lifetimes to society, right? So we're using that extremely unnormal situation, to think about our experiences during that situation, to think about the future of online education. And I think that that's a problem.

As Andrew indicates here, the emergency remote period was a highly atypical situation where all instructors and students were forced to revert to the online mode, whether they wanted to or not. To use such an experience as a baseline in forming an opinion or making decisions related to the future format of course offerings seemed precarious to some of the instructors in this study.

Three faculty struggled to define what the future of online learning should look like within their own departments because they felt they did not have enough data on the learning outcomes from the remote experience. Patricia indicated that she understood the need for flexibility, but she was also concerned about assuming that learning outcomes were the same while remote as in-person, "I have questions about whether or not [the students] are still learning the same. Are they getting the same content?" Another participant, Hilary, struggled with describing her experience teaching remote, reflecting, "I mean…how much work do we have to do [remotely] to really call it a 'class?'" When Elizabeth was asked about her opinion on the future of online learning in her department, she replied, "I don't have any belief about it. I don't really know. I am not an expert."

The perception of the future of online learning within each department varied. Seven of the 19 participants expressed that they felt mixed on what the future of online learning should look like within their departments and within higher education in general. Another seven expressed more negativity towards online, with several stating that the university should be more considerate of how easily they approve online courses. Four faculty were relatively open to the future of more online course options, but also stated that it depended on the type of course, size, and instructor ability. One person was completely fine with keeping courses online within her unit and generally in higher education, as she expressed that online learning provides flexibility, was the way of the future, and that the remote period taught everyone how to use the tools to do it properly.

Four participants mentioned that they felt it was reasonable to offer courses online during the summer intercession because summer classes were optional, cost more, and were usually taken by students who needed to make up a course or finish a requirement while living at home (or abroad) for the summer. Patricia reflected that her department administration encouraged her to teach her summer course online: "For my one class, I've been asked to now be online in the summer, because the flexibility gets more people to take it." It is important to note that part of the revenue generated from summer session courses at this institution is returned to the departments, which then functions as their annual operational budget. Thus, many department administrators and faculty feel incentivized to increase enrollment within summer courses by offering more of them online. Kevin indicated this by reflecting upon his own department when he said, "it seems like our summer education classes are almost *exclusively* going to be online going forward."

In conclusion, interviews with participants indicated that out of all the nine departments in this school of study, no set of specific standards or regulations exist in approving online courses. Faculty who would like to teach their courses online must fill out paperwork that include questions on how faculty will prepare and provide course materials, assessments, and examinations appropriately in an online format. After submitting the paperwork and syllabus to the department staff, it is routed through the department chair, dean, and academic senate committee on courses for formal approval. The course may be offered as "online" in the following quarter after it is approved. All participants in this study indicated that there was no uniform plan or discussion in place among their departments about the types or development of online courses within their unit in the post-pandemic era. Future modalities of courses are not typically discussed within the department; thus, each instructor – with the exception of lecturers – may submit an application for the online format without much discussion or consideration by colleagues or departmental leadership.

Conclusion

The interviews within this study generated several findings that might be worth considering in the context of online learning, or even in-person learning. The effective teaching strategies that these individuals chose to utilize within their classrooms during a highly unusual time are worth nothing. In the next chapter, the significance and impact of these findings will be discussed at length.

CHAPTER 5: DISCUSSION

Introduction

This study emerged from my experience managing an academic department during the COVID-19 pandemic, and realizing the implications the emergency remote teaching environment could have on the future of learning – *online learning*, specifically – at institutions of higher education. As my campus returned to in-person instruction, I noticed an uptick of course offerings remaining online despite never being held online pre-pandemic. Thus, I sought to uncover the lessons of the remote emergency learning environment from the perspectives of students through evaluation ratings, and faculty members who lived through the experience. I was interested in identifying courses and instructors that were rated highly by students during the remote period. I then wanted to explore what those instructors – who were well rated by students – faced during this unique period, how they overcame challenges, and what strategies they might have introduced and retained in their classes with their perspectives for the future of online learning.

In reviewing student evaluation ratings of faculty and course effectiveness during the emergency remote period, I compared the means and z-scores of ratings of each course that was offered between 2020 and 2021 among nine academic departments. After completing this analysis, I identified a subgroup of faculty who scored above the mean of their respective department. I engaged 19 of them in one-on-one interviews to further understand the challenges they faced during the pandemic, and how they attempted to overcome such challenges. As I detailed in Chapter 3, the analysis of the course evaluations directly informed my sampling strategy for my in-depth interviews with faculty, and I then used multiple rounds of deductive coding to analyze the qualitative data.

Summary of Findings

The analysis of data revealed several key findings. Analyses of the quantitative data revealed a subgroup of faculty members who were rated exceptionally well by their students while teaching remotely during the COVID-19 pandemic. Once interviewed, the analyses of the qualitative data revealed several overarching themes. The interviews shed light on challenges that pertained to remote teaching; and yet, a major finding was that all 19 participants prepared and improved their course materials in unique ways while remote due to their concerns in maintaining normalcy and effective learning for students during such an unusual time. They chose to go beyond what was expected of them – by their own choice—in hopes of providing the best quality learning experience for their students. Second, faculty utilized greater active learning strategies, such as the chunking of lecture content, flipping the classroom format, and providing more individualized feedback within the remote classroom to better engage students.

Some participants reflected that they were well-aware of these strategies prior to the pandemic but found themselves relying upon them more heavily during the remote period because they found that active learning activities helped bridge the gap they felt existed within the online format. Similarly, faculty identified and utilized newfound forms of communication during the remote period in hopes of deepening their connection to students while online. In an environment with limited facial interaction, engagement opportunities, or natural socialization outside of lecture time, these active learning and communication strategies served to deepen and augment learning.

Next, the remote experience inspired faculty to retain some of the newfound strategies they had adopted. These ranged from using the flipped classroom format, to

preserving updated course content, to harnessing communication technology to enrich academic opportunities for students. These educators believed such techniques were worth retaining for the long-term because they realized they significantly enhanced their classrooms. Finally, the study provided faculty with the opportunity for reflection and self-awareness to identify considerations faculty and administrators might take note of for the future of online learning within higher education.

In this chapter, I discuss the implications of the findings, present the value of the findings for various stakeholders, and detail some of the limitations of the study. I also make suggestions for further study and share my concluding thoughts.

Discussion of Findings

Conveying an Ethic of Care

Despite the significant challenges of teaching remotely during the pandemic, this study illustrates the commitment these faculty had to their students. They showed resilience and determination to produce the best quality educational experience no matter the sacrifice to their own lives, demonstrating an "ethic of care" within the remote classroom. The results of this study indicate that despite these expected struggles, well-rated faculty chose to teach or interact with students in ways that clearly signaled an ethic of care while remote. Most participants took specific and concrete actions that they believed positively affected the well-being of their students— from incorporating new multimedia and improvements into their content, to keeping course curriculum well-organized and structured, to communicating with students in creative new ways to remain connected, to making use of student polls and feedback to make improvements to curriculum as needed. They conducted these actions with

the hope of making learning engaging, high-quality, connectable, digestible, and supportive for students.

In doing so, they exercised a fair bit of flexibility and willingness to adapt their workloads to make things better for the sake of their students. Such behavior aligns with Caldwell and Sholtis' description of being a "flexible teacher" who encompasses an ethic of care practice by incorporating new behavior and rule adaptations into the classroom to address the needs of their students (Caldwell & Sholtis, 2008). Benjamin's reflections underscore this sentiment well, as he made curriculum changes to support his students despite having to sacrifice his research; he did so because he understood students' vulnerability and uncertainty during the pandemic. Such empathy and commitment to be an effective teacher during the remote period for students could be attributed to why students might have rated these participants so exceptionally well in their evaluation scores- they certainly exemplified the ethic of care practice.

Recent literature from the emergency remote period suggests that many faculty members perceived themselves less so as *instructors* and more so as *co-learners* due to the adaptations many of them made within their pedagogical approaches (Hutchinson, 2021). This perspective echoes the sentiments of the faculty in this study, as faculty's intense, proactive efforts to understand, problem-solve, and innovate for the sake of course improvement – even with an added workload – clearly conveyed an ethic of care (Persky, 2021). Their unwavering commitment in seeking feedback from students- through surveys or direct inquiries - and then making adaptations required a great deal of flexibility but also learning on their end. This dedication reflects a genuine desire to put student needs above their own. Moreover, taking the time and demonstrating genuine interest to obtain student

feedback on course curriculum adjustments exemplifies an ethic of care. By actively listening and constructively incorporating students' feedback, faculty reinforce the notion that "the caring teacher listens, accepts and uses feedback constructively" (Caldwell et al., 2012).

Faculty commonly cited their efforts to develop their courses with intentionally strong organizational and structural elements to promote normalcy and consistency among a difficult time. The literature on the ethic of care supports such action, as the research has indicated that students who witness their instructors providing guidance, structure, and organization within a classroom tend to believe their instructors do so because they truly care about them (Eagan, Figueroa, Hurtado, Gasiewski, 2012). From re-designing syllabi, outlining course expectations up front, making greater use of Canvas pages, providing intricate details regarding the length of lectures, and providing FAQ sheets to answer anticipated student questions—these participants took all of these extra steps because they cared about their students and wanted to circumvent them from falling through the cracks they felt were magnified during the emergency remote period. In a way, instructors in this study became far more accommodating to students, and they also conveyed a stronger sense of empathy and humanity to students. When students believe their instructors care about them, they tend to do better academically (Mercado, 1993; Crombie, 2003).

The participants' distinct communication methods also exemplified an ethic of care within the classroom. While many campus administrators advocated for greater flexibility and supports for students during the pandemic, these instructors surpassed expectations by prolonging Zoom sessions, mandating individual student meetings, engaging in personal storytelling during lessons, and hosting informal but memorable office hours occasionally featuring pets. These practices align with some of the documented efforts of caring

approaches by some of the faculty and administrators among institutions across the country—from mailing out cards and gifts to students, to developing caring video messages to students, to hosting social activities online to foster a sense of community (Liu, Shi, Lim, Islam, Edwards & Seeger, 2022). Most participants in this study rarely engaged in such communication tactics before the pandemic and only adopted them because of the isolationist nature of the remote period. Yet surprisingly, the level of personal interaction among students and faculty during this isolating period was noteworthy, potentially contributing to an elevated level of connection and increased evaluation scores within their departments.

Practicing Student-Centered Pedagogy

This study illustrated that participants relied much more heavily on student-centered pedagogy such as active learning practices during the remote period, because they felt they needed to find alternative ways to engage, connect, and deepen student learning while online. Before the pandemic, a common challenge within online learning was that instructors frequently transferred their in-person content to the online environment without much adaptation, not recognizing the differences between the two settings (Xi & Xu, 2019). In contrast, most participants in this study exhibited starkly different behavior, where they hesitated in treating online and in-person as identical. Andrew specifically cautioned against instructors conflating the two modes as "the same thing." In this case study, it appears that the participants quickly and intuitively recognized the unsustainability of directly replicating in-person courses online; they swiftly adapted their pedagogy within the brief window they had to make their teaching more student-centric.

The interviews illustrated that many instructors did so by introducing more variation and segmentation within the structure of their courses while remote— from group work,

individualized work, and more presentation opportunities throughout scheduled class time. The departure from the "traditional lecture-only" approach aligns with active learning practices, where students are directly involved with lecture through alternative means—from discussions, increased opportunities for questions, in-class writing exercises, and enhanced visual or demonstration-based instruction (Caldwell & Sholtis, 2008; Bonwell & Eison, 1991). Several participants described their belief that lecturing at students was ineffective and likely lost the interest of students while online. Many of them believed that the breakup of lecture content was more critical when online than ever before because of the lessened ability to control classroom energy and attention spans in such an environment. Literature on online teaching underscores this perspective, noting an increase in student engagement online when practicing active learning pedagogies (Khan, Egbue, Palkie, Madden, 2017). When students are engaged in their classes and in their course material, studies have indicated that they experience greater opportunity for learning achievement (Gasiewski, Eagan, Garcia, Hurtado, Chang, 2012).

For most participants interviewed – especially the five who transitioned to a flipped classroom approach during the pandemic – active learning strategies served as a superior alternative within a limited learning environment, so much so that some decided to retain such strategies in their future courses post-pandemic. Benjamin observed the positive impact of his course attendance when he flipped his classroom and integrated more active learning strategies within the synchronous portion of his lectures, leading him to retain such a format for the future. Nathan detailed the greater learning impact he felt the flipped classroom format had on his students because of the increased opportunity for discussion on sub-topics, making the learning gravitate better, and thus leading him to retain the format for all his

future courses. The pre-existing literature has highlighted the challenge of integrating active learning activities while online, and yet scholars have also suggested that digital tools can be used effectively to enhance classroom learning, like the faculty in this study did (Khan et al., 2017; Tautz, Sprenger, Schwaninger, 2021). These participants who embraced the flipped format found technologies such as Zoom – coupled with transcriptions and recording capabilities – to assist them in crafting more innovative, engaging, and beneficial content.

The majority of the study's faculty noted the increased challenge of not being able to identify how students were retaining material with reduced facial interactions among the online setting. Literature on classroom interactions underscores the benefit of face-to-face interactions for both students and teachers, fostering a shared sense of responsibility (Levinas, 1996; Miller, 2012; Feldman, 2020). To compensate for this gap, some of the faculty in this study not only gathered information on how students were retaining material through student polls and surveys, but also devoted themselves to providing greater individualized feedback to students on their work during the remote period. Active learning pedagogy underscores the importance that continual feedback has on student understanding of course material. Feedback bridges the gap between a students' current understanding and desired comprehension level, and fosters learning and greater academic achievement (Hattie & Timperley, 2007).

While some of the participants of this study had already acknowledged their shift away from the traditional "lecture only" model pre-pandemic, the remote teaching experience further solidified their belief that relying solely on traditional lecture as the only tool to teaching effectively was not a long-term viable strategy any longer. Utilizing greater active learning and student-centered pedagogies illustrated to them that there were other methods to

effectively engage and interact with students, which in some cases even *improved* the classroom dynamic and belief of learning. It took a worldwide pandemic for them to take note of and embrace the greater benefits of active learning pedagogy.

Unfreeze - Change - Refreeze: A Learning Transformation

Despite the challenges encountered during the 2020-2021 academic teaching year, the experiences the instructors of this study went through demonstrates the ushering of an educational shift within higher education. These educators innovated and improved course content, enhanced course organization, embraced more student-centered pedagogical strategies, and developed unique communication techniques to make the teaching experience better for students. In doing so, the experiences and actions they took in delivering these goals profoundly shaped their future perspective on teaching, regardless of the medium. Some retained the pedagogical strategies they adopted from the remote period for their future courses, others developed a newfound appreciation for integration of technological tools within the classroom, and others completely transformed their course formats due to their positive experiences during the emergency remote period. This pedagogical transformation directly aligns with Lewin's organization change theory.

Lewin's change process is described in three stages: 1) the initiation of change ("unfreezing"), 2) the actualization of necessary modifications ("changing"), and 3) the solidification of changes for longevity ("refreezing"). Within the context of this study, the pandemic acted as a catalyst in forcing all instruction to go online for the first time in history, causing the "unfreezing" of traditional teaching methods. Despite the numerous challenges encountered, faculty not only adjusted to these new circumstances, but they also made deliberate "changes" by implementing enhancements, innovations, and unique pedagogical

approaches into their remote courses due to their ethic of care philosophy. After a year of teaching remotely and getting acquainted to all the changes, an educational transformation took place, where these faculty came to value the enhancements and strategies they implemented and considered them for retention within their future teaching. By becoming a part of their teaching paradigm, a "refreeze" occurred, where the new strategies became normalized and a part of everyday teaching. An organizational change occurred in accordance with Lewin's change theory process and transformed these faculty members' perspective on teaching forever (Lewin, 1947).

Some participants acknowledged the benefits they felt the remote experience had on their long-term teaching. As several acknowledged their course materials had not been updated or revived in decades, the remote period created the impetus and opportunity for change, as they turned to improving lecture content due to the self-imposed belief that they had to make the content more accurate, engaging, and current while teaching online. Similarly, some participants reflected how much more organized they became with their online content and curriculum; the remote circumstance dictated this behavior, as they were motivated to maintain normalcy and ease for students during such a challenging learning period. According to Lewin, the "unfreezing" of the existing norms must be the first and primary step in the change of behaviors (Levasseur, 2001; Lewin, 1947). The pandemic provided the momentum for the unfreezing, which then led to the change process.

The literature indicates that the "change" process in Lewin's theory may consist of a period of ambiguity and uncertainty as participants search for the appropriate framework to adapt to the challenging situation (Siegal, Church, Javitch, Waclawski, Burd, Bazigos, Yang, Anderson-Rudolph, & Warner Burke, 1996). In this study, such a feeling resonated as the

faculty faced numerous obstacles in learning how to adopt their curriculum to the online format, engaged in trial-and-error, and sacrificed dozens of hours into revamping lectures. It is clear based on the discussions in the interviews that the participants would likely not have engaged in this "change" process had the remote teaching environment not occurred. Once online learning was made compulsory, posting inaccurate or difficult to follow lecture content was enough motivation for these participants to take upon the challenge to update lectures and organization, introduce more student-centered pedagogical strategies, and communicate differently after decades of teaching the same way. The pandemic truly served as an agent of change within this transformation of learning.

The adoption of the flipped classroom proved to be a monumental pedagogical shift for the participants who opted for this approach during the emergency remote instructional period. The four faculty who explored the flipped mode for the first time during the pandemic were compelled to switch to such a format due to the necessitated "unfreezing" of conventional learning methods due to the remote teaching context. These participants' receptiveness to experimentation and exploration of innovative learning techniques to better resonate with students aligns with Lewin's model of change, which explains that establishing ideal systems during a transformation stage involves time, exploration, and the trial-and-error process (Siegal et al., 1996). As evidenced throughout this yearlong journey, these educators discovered a profound affinity for the flipped classroom. This realization was so influential that they all chose to continue using this classroom model for their future instructional framework. Such an evolution in their teaching approach mirrors the literature on organizational change within the pandemic, illustrating that sometimes unprecedented and unanticipated events – such as the COVID-19 pandemic – can prompt the "unfreezing" and

subsequent transformation of established systems (Mishra, 2020). The changes caused by the pandemic demonstrates the innovation and change process of existing teaching paradigms for the first-time decades for some of these participants.

The retention of innovative communication strategies – such as the greater involvement of students into online academic seminars, providing more flexible office hours through online methods to connect, and encouraging greater informal discussions alongside classroom time (such as the Zoom chat) – is also evidence of an organizational shift taking place within the classroom since the pandemic occurred. Prior to the pandemic, most of these participants did not engage in such actions because they were not needed or even thought of as options. In a sense, the pandemic provided a window of opportunity for participants to think creatively and inspire innovation into their courses. Integrating technology into the classroom to better communicate and stay connected is something many of them reflected retaining for the future and is evidence of an organizational change taking place (Mishra, 2020).

Implications for Stakeholders

Faculty Members

This study likely has implications for many stakeholders within higher education. One of the greatest benefactors of this study's results are faculty members who teach at a college or university, especially those who aspire to teach effectively online. It also has positive implications for all instructors who seek to improve their teaching methodologies in general – regardless of whether they teach online or in-person. Faculty have incredible impact at the college level; they not only have the most facetime with students in shaping their learning and imparting knowledge, but their longevity and position – especially if

tenured – can wield considerable influence and clout in the decision and policy-making process at a university (Birnbaum, 2004; Eagan, Jaeger, & Grantham, 2015).

This study illustrates how much participants were mindful of their students, their learning needs, and were creative in their pedagogical approaches among an unusual environment. They discovered benefits to retaining technology and new teaching approaches within the classroom in a setting that was not their preferred format; and yet, they still found ways to interact, deepen their connection with students, and encourage students to connect with one another during an increasingly vulnerable time, which resulted in a positive classroom experience. While this study did not correlate student evaluation scores to the strategies these faculty used, these participants were all highly rated by students within their departments, with several even winning teaching awards over the years. The findings of this study illustrate that practicing an ethic of care and student-centered pedagogy was very important to *well-rated faculty,* especially in times of great challenge. Thus, such characteristics and teaching approaches may be worth considering for *all* faculty who may want to improve or innovate within their teaching. Moreover, with the inevitable but likely chance of future challenges arising within higher education – from health-related emergencies to administrative challenges to financial difficulties – the ability to shift and *effectively* teach within an online format would be a useful skill for faculty to learn.

Specifically, to practice a greater ethic of care and implement more student-centered pedagogies, instructors can consider refreshing their course materials with updated instructional materials more frequently (ideally annually), segment lectures into digestible pieces, and integrate more participatory activities within class to better maintain student attention and engagement. Additionally, they may consider to proactively anticipate and

address student inquiries and needs more frequently, design clearer course expectations and course website pages to ensure organization, while providing more critical and constructive feedback on students' work. Finally, instructors might also consider alternative instructional formats that supplement their existing class structure, such as adopting the flipped classroom model or providing additional resources for asynchronous content for pre-class preparation. As evidenced by this study, the faculty members who transitioned to a flipped classroom noted a significant improvement in student engagement and deepened learning, which encouraged them to continue utilizing this format in the post-emergency period. In many cases, these faculty reported that usage of these strategies encouraged a sense of revitalization and reinvigoration of their course content and the methods they taught.

Faculty members who serve in administrator roles also greatly benefit from the lessons of this study, as they consider the future structure of courses and pedagogy within their own departments. College campuses are known for their shared governance leadership model, where faculty members are typically heavily involved in the decision-making and policy-shaping process at their institutions (Kerr, 1963). While some decisions are out of faculty members' hands – such as the shift to requisite remote teaching that took place during the COVID-19 health emergency – faculty do tend to have say in the shaping of curriculum, introduction of pedagogical innovations, and new course development within their respective departments (Birnbaum, 2004). As faculty serve in various leadership roles on campus as deans, chairs, and members of academic senate committees, they have considerable influence in the setting of course policy requirements for online courses, but also have approval and say in the implementation of pedagogical improvements, modifications, and introduction of new curriculum and courses within their departments. Understanding the lessons that

successful faculty have found in teaching remotely can serve as a useful guide and criterion for faculty making critical decisions within departments and may greatly assist how the university decides to offer future online courses.

This study's findings also suggest that even if some faculty do not ever want to teach online again after the emergency remote period, they can still gain valuable lessons from introducing more caring practices and student-centered activities into the physical classroom to shape pedagogy in a way that resonates more deeply with their students. Becoming more organized, augmenting lecture with pieces of multimedia, using technology to streamline administrative processes within the classroom, breaking up traditional lecture with more active-learning activities, and finding creative ways to communicate and form relationships with students are all actions faculty can gain from by implementing them into the physical classroom. As Ryan and Frank both reflected in their interviews, universities are now teaching to the "modern day student," and today's students are more demographically and ideologically diverse than students from decades past (Eagan, et al., 2016). Considering the strategies and mindsets these best-rated faculty used in a very challenging situation can only be beneficial to faculty and students.

Students

This study has direct implications for students and their future learning at institutions of higher education. Students are central stakeholders at the university as the recipients of course content. By implementing the recommendations and strategies that faculty – who were well-rated *by students* – believed to be most effective and the cause of their strong ratings while teaching in a challenging environment is a service to the students and their learning. Ensuring a teaching environment that encourages a caring pedagogy of practice,

promotes active learning, and implements creative communication strategies especially while online is one that places the student first. As the literature and findings of this study shows, placing great care for the student is key to an effective learning environment (Gasiewski, et al., 2011). Furthermore, encouraging and considering student feedback – such as in the form of student evaluations – represent critical strategies for improving and ensuring effective online teaching (Jaggars & Xu, 2016; Sharoff, 2019). Students are the primary recipients of educational material; thus, their feedback is *essential* to the improvement and innovation of teaching pedagogy. Young (2006) argues that student feedback helps online instructors improve their courses but also improves students' perceptions of instructor effectiveness. Administrators and instructors should take student feedback to heart as they consider implementing more online course offerings within their institutions.

Administrators

The findings of this study hold significant implications for university administrators, especially as institutions of higher education consider the incorporation of more online courses into their curriculum (Hart, Hill, Alonso, & Xu, 2022). Administrators need to be thoroughly informed about the lessons and implications of the emergency remote period before accelerating the endorsement of additional online courses. As Derrick had indicated, the decision to transition more courses to the online format should be carefully evaluated and justified to ensure that the priority is students and their learning. Understanding effective classroom strategies of faculty members who were commended by students also aligns with keeping student perspectives and feedback at the forefront of the educational mission. This study underscores the need for administrators to maintain justification and assess academic outcomes, while creating uniformity among the online course approval process within

departments. To do so, they should consider well-rated faculty's recommendations for teaching effectively in the online format.

Administrators should also acknowledge, embrace, and encourage the work that well-rated faculty members are conducting within the classroom to promote more innovative, caring, and student-centered practices. However, as many of the participants of this study reflected, the expectations of faculty members to conduct research, service, and deliver effective teaching poses a significant dilemma in being able to successfully implement some of these teaching practices. As evidenced by this study, some of the innovations and revitalization of courses can be intensely time consuming, as participants reflected working harder than ever in the remote period and putting aside their research responsibilities in exchange for placing their students as their priority. Thus, administrators play a critical role in alleviating some of the pressures faculty encounter to sustain high-quality teaching practices in the evolving educational landscape.

Specifically, administrators can facilitate incentives for faculty and departments to encourage the participation in active learning and digital learning pedagogy programs at their institution or externally. For example, offering a month's summer salary or research stipend to attend such institutes could be a viable incentive, affording the faculty members' time during the summer to rejuvenate and revitalize their course structure in preparation for the academic year. Additionally, institutions may consider providing selected faculty members with periodic course releases (i.e., one release every three to five years) to enable them to take the time to refresh course content and integrate greater student- focused methodologies at regular intervals. Further, if the strategic goal of an institution is to accelerate online course offerings in a post-pandemic world, then administrators should consider a significant

investment in the hiring and retention of more curriculum specialists and digital learning designers. Such action would help point faculty members to the emerging technologies and tools that continually become available for integration within their online classrooms. Additionally, a more robust technical and administrative infrastructure at the institution will be essential to supporting the continual growth of online education programs to ensure sustainability and prevent faculty burnout.

Limitations of the Study

This study's design has a few limitations to acknowledge. While course evaluations and interviews originated from nine different academic departments, they were all contained within one unified school that represented a wide range of disciplines. Typically, an academic school adheres to uniform methodologies, theories – and most importantly – pedagogical approaches that work best for them and their distinct disciplines (Lindblom-Ylanne, Trigwell, Nevgi, Ashwin, 2006). Consequently, other academic schools and disciplines may practice different teaching methods. Thus, effective remote strategies discovered within this study may not be generalizable to other disciplines with different course content, structure, and pedagogical needs. For instance, science disciplines may require more emphasis on lecture time to explain course content in comparison to humanities disciplines.

Another limitation is that the evaluations derived from a sample of 245 faculty members, with only 19 being interviewed. This small interview size was too small to generalize to an entire school, university, or other educational institution. Further, these departments varied significantly in faculty size and student major enrollment. For example, faculty size within the smallest and largest departments ranged from 12 instructors (4.89% of

total faculty within the school), to 43 instructors (17.55%), while student major enrollment among the studied departments ranged from 35 students to 1,599 students. Additionally, the interview distribution was uneven among departments due to availability constraints, with one department representing four faculty members (21% of the sample), and another department representing just one faculty member (5% of the sample). Such variances in the sample may have implications towards the findings of this study.

Finally, this study was limited to top-rated instructors. A key limitation may be that some of these faculty members had an established reputation for innovative and strong teaching prior to the pandemic. As mentioned previously, some of them had even received campus awards for their teaching. Their pre-existing strengths may have pre-disposed them to adjusting well during the remote period. Several mentioned how teaching was their favorite part of their jobs – even within a research institution – which suggests that their success in teaching was noteworthy even before the remote teaching environment began. Nevertheless, they still had to adjust to a completely new format.

Directions for Further Study

This study was designed with the intention of learning and analyzing the lessons from the remote learning experiences that occurred during the COVID-19 pandemic. The purpose was to identify classroom strategies that worked well within an enormously challenging environment, especially as the proliferation of online courses continue within the post-pandemic era of higher education. The fact that well-rated instructors exercised a great amount of care for students and made greater use of student-centered strategies while teaching remotely provides multiple paths for follow-up. A survey that collects student perceptions on why they rated their faculty members' the way they did might help identify if

the strategies in this study were somehow correlated to the higher teaching evaluation scores. Such findings would provide greater strength to retaining the remote teaching strategies, especially if students rate instructors highly due to their use of such strategies. Additionally, it would be worth comparing instructor evaluation ratings prior and during the remote phase. Doing so would pinpoint the reason behind faculty members' high ratings and whether the new strategies they introduced during the remote period might have influenced their ratings.

Another additional interesting approach within this area of research could involve a comparative study amongst high and low-rated instructors from the remote learning period, including interviews from both groups of instructors and students as well. Such a case study would help reinforce whether the differences among ratings were tied to the practices the faculty introduced within the classroom. Additionally, the monitoring of evaluation scores for the same instructors over time and conducting follow up interviews down the road– especially with those who continue to teach in the online format – would provide interesting insights into the evolution of their teaching strategies and their corresponding ratings as well.

Final Thoughts

This study is quite novel in the growing field of online education among the post-emergency remote environment. Thus, its implications are exciting and yet ever-changing. The lessons from remote learning dawned upon me while I was serving as the department manager of an academic department. At the same time, as a graduate student myself who was forced to undergo remote learning during the 2020-2021 academic year, I was curious what – if any – lasting impact such an experience would have on the future of learning at institutions of higher education. I personally witnessed instructors who struggled with remote teaching, and yet who also managed to adapt and make excellent use of technologies, tools, and

pedagogical approaches that made the remote classroom experience personally satisfying and impactful. From my perspective as an administrator within an academic department that oversaw curriculum planning and scheduling of courses at a major university, I began to realize the effect the remote learning period would have on online education for decades to come. As faculty members considered future course offerings, I wondered what implications and lessons learned could be harnessed from this remote period for the betterment of future teaching.

The priority with this project was to highlight the strategies that well-rated faculty used to make learning effective and long-lasting for students amongst a highly challenging environment. The teaching evaluations illustrated that these instructors were doing something beyond simply replicating their in-person courses to the online zoom format. Through interviews, it was discovered that many participants held a unique mindset to how they viewed teaching. They put their students first, no matter the cost to their own lives. They worked endlessly and creatively in making classes as normal as possible, while relying more heavily on unique strategies to better connect and encourage learning for students during a challenging time. The benefit and retention of some of these strategies became evidence of a transformational shift taking shape within higher education, as some of these tactics became the basis for future teaching—online or in-person. The process to enact effective and long-lasting change in a large institution can be incredibly challenging, and thus the emergency remote teaching experience proved to be the impetus for long-lasting change that will likely have impact for decades. It took a world-wide pandemic to shake the existing norms of higher education, and while there are many elements of silver-lining from the lessons learned

in this study, serious considerations should also be kept in mind before making long-term changes to teaching.

APPENDIX A: RESEARCH INFORMATION CONSENT FORM

University of California, Los Angeles

RESEARCH INFORMATION SHEET

Lessons from Remote Learning during the COVID-19 Pandemic

PURPOSE OF THE STUDY

Claudia Cheffs (B.A.) and Kevin Eagan (Ph.D.) from the Department of Education and Information Studies at the University of California, Los Angeles are conducting a dissertation research study on the lessons of the remote learning environment during the COVID-19 pandemic. This study is designed to utilize evaluation scores as a selection tool in identifying faculty who scored as high-performing or well-rated during the remote period. Follow-up interviews with faculty will be used to better understand teaching methods used during the emergency remote environment.

As a selected participant in this study, you have been asked to:
1) interview with the researcher, and
2) provide the researcher with copies of your course evaluation for specific terms and courses (optional)

NOTE: If you do not feel comfortable with the second option, the researcher will still find great value in interviewing you.

The data gathered in this study will be used for a dissertation study aimed at better understanding the strategies, approaches, and considerations that faculty might use to help improve the quality of online and in-person courses in higher education.

PROCEDURES

Prior to interviews, student evaluations have been coded by random identifiers. In completing a statistical analysis of scores during the remote period, you/your courses have been identified as high performing/well-rated.

By volunteering to participate in an interview, you will be asked to voluntarily provide copies of your evaluation reports to the researcher so that your interview responses can be linked to the evaluations. This is entirely optional.

To participate in this study, please confirm with the primary investigator (Claudia Cheffs) to schedule an interview. Interviews will last between 45 to 60 minutes depending on the length of answers and how quickly we move through questions. Interviews will be recorded and transcribed for data analysis purposes. If you do not feel comfortable with being recorded, please let the researchers know. Please see the confidentiality section for more information.

You may decide to stop the interview at any point in time without any consequence in mind. This study will not offer payment for participation. Your participation in the interview will indicate your consent to participate in the study. We ask for your name and email address so that we can contact you for an interview date.

USE OF DATA FOR FUTURE RESEARCH
No data collected during this study, including de-identified data will be shared for future research.

POTENTIAL BENEFITS TO SUBJECTS AND/OR SOCIETY
You may have the opportunity to reflect upon your teaching experience during the emergency remote environment as you answer interview questions, which may provide an opportunity for self-understanding. Your responses will also be beneficial to the university, students, and the field of higher education.

POTENTIAL RISKS AND DISCOMFORTS
There could be interview questions that might cause you discomfort answering or which you prefer to simply not respond. Your participation in the interviews is strictly voluntary and you will be under no obligation to answer any questions you are not inclined to answer. You may choose not to answer any specific questions you do not want to answer and still remain within the study.

CONFIDENTIALITY
The researchers will do their best to make sure that your private information is kept confidential. Information about you will be handled as confidentially as possible, but participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured. As with any use of electronic means to store data, there is a risk of breach of data security.

The research team and authorized UCLA personnel may have access to study data and records to monitor the study. Research records provided to authorized, non-UCLA personnel will not contain identifiable information about you. Publications and/or presentations that result from this study will not identify you by name.

Online data will be encrypted, electronic data will be encrypted/password protected, and hardcopy data will be stored in a locked file cabinet/room. All identifiers will be destroyed at the end of the study.

IDENTIFICATION OF INVESTIGATOR
If you have any questions or concerns about the research, please contact principal investigator, Claudia Cheffs, at: ccheffs@ucla.edu or (949) 824-2540. You may also contact the faculty sponsor, Kevin Eagan, at: keagan@ucla.edu or (310) 206-3448.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights, or remedies because of your participation in this research study.

UCLA OFFICE OF THE HUMAN RESEARCH PROTECTION PROGRAM (OHRPP)

If you have questions about your rights as a research subject, or you have concerns or suggestions and you want to talk to someone other than the researchers, you may contact the UCLA OHRPP by phone: (310) 206-2040; by email: participants@research.ucla.edu or by mail: Box 951406, Los Angeles, CA 90095-1406.

APPENDIX B: RECRUITMENT EMAIL

Subject Line: Interview Invitation: Lessons from Remote Learning

Dear Professor:

NOTE: This email is being sent from the School of _____ Computing IT Team. The PI in this study is NOT aware of your identity.

My name is Claudia Cheffs and I serve as the Manager of the UCI Department of Political Science. I am currently working on completing my Ed.D. degree in education at UCLA.

I am completing a study on the lessons of the remote teaching environment during the COVID-19 pandemic. The School of _____ has provided me with limited access of student evaluation scores in which all names of instructors have been coded by the IT department, so they are unknown to me. In completing an analysis of evaluation scores during the remote period, **your courses have been identified as high performing and well-rated. Congratulations!**

Because of your high ratings and the low number of faculty who identified within this range, I would greatly benefit from a discussion with you to gain a better sense of your experience during the remote period. Your insight will be a useful contribution as universities consider increasing their online course offerings in a post-emergency environment.

By participating in an interview, hopefully you will allow me to associate your evaluation scores with any information you offer during the interview about your teaching methods and experience. Please note that all personally identifiable information will remain completely confidential within the results of the study. There are no known risks involved within this research.

Participation in the interview will take approximately 45 minutes of your time. If you are available to participate, please book an appointment and I will be in touch with further details: **https://calendly.com/ccheffs/interview-meeting**

If you have any questions, please do not hesitate to reach out directly to me at: ccheffs@uci.edu or 949-824-2540. Thank you very much for your consideration.

Warm Regards,

Claudia Cheffs
Principal Investigator

APPENDIX C: RECRUITMENT FLIER

Interview Invitation

Congratulations! Your courses have been identified as high-performing and well-rated amongst [redacted] faculty during the remote teaching period.

I would greatly benefit from a discussion with you to gain a better sense of your experience during the remote period.

CLAUDIA CHEFFS

Principal Investigator

Claudia is an Ed.D. student at UCLA investigating the lessons of the remote teaching environment during the COVID-19 pandemic. She also serves as the Manager of the UCI Political Science Department.

Scan this code to schedule an interview!

Or go to:
https://calendly.com/ccheffs/interview-meeting

The School [redacted] has provided the PI with limited access of student evaluation scores (all names have been coded by the IT department and thus the PI is not aware of any identities).

By participating in an interview, hopefully you will agree for the PI to associate your evaluation scores to your interview responses. All personally identifiable information will remain confidential within the results of the study.

Contact Information: ccheffs@uci.edu | 949-824-2540

APPENDIX D: INTERVIEW PROTOCOL

1. How long have you worked at XX?

2. One/some of the courses you taught during the remote period is XX. How long have you been teaching this/these course(s) overall?

3. In thinking about a standard course meeting or even a typical week, could you please describe the format and structure of your classes prior to the pandemic?
    a. What specifically did you do in-person during class time (i.e., lecture/breakouts, etc.)?

4. How did you feel about online learning prior to the pandemic?
    a. What was your opinion of online learning prior to the pandemic?
    b. Were you in favor of online learning prior to the pandemic?
    c. What, if any, hesitations did you have towards online learning prior to the pandemic?

5. How did your course structure and flow change when classes shifted to emergency remote instruction?
    a. What specifically did you do during remote class time (i.e., lecture, break out rooms, etc.)?

6. How did you go about prepping your lectures for remote class?
    a. Did you find yourself preparing differently in the prep compared to pre-pandemic?

7. How did that preparation impact the rest of your work as a faculty member (i.e., research, service)?

8. I want to get your reflections on your experiences teaching remotely during the emergency distance learning period due to the pandemic.
    a. What challenges did you encounter while teaching remotely during the pandemic?
    b. To what extent did you anticipate these challenges?

9. How did you overcome those challenges?
    a. What adjustments did you make within the course?
    b. What worked well for you while teaching remotely?
    c. What new strategies, considerations, and accommodations did you introduce into your course(s) during the emergency distance period?

10. I conducted an analysis of your student evaluations of teaching for your X course(s). I noticed you rated highly during the 2020-2021 academic year. Specifically you rated X standard deviations above the mean in comparison to your colleagues.

    a. To what do you attribute these scores [high] scores?
    b. What did you expect to see in your student evaluations for this course while you taught online during the pandemic?
    c. What did you not expect to see in your student evaluations for this course while you taught online during the pandemic?

11. In the 2021-2022 academic year, what format did you return to teaching?
    a. (I.e., in-person, online, or hybrid)?
    b. Can you please describe the reasoning behind choosing this format?

12. What, if any, strategies, did you use in your remote classroom that you have retained?
    a. What was the reasoning for retaining these strategies?

13. To what extent did you find that your opinion regarding online learning changed after teaching remotely during the emergency environment?

14. What do you now know about online teaching that you wish you knew before March 2020?
    a. What advice do you have for someone seeking to teach online at the university?

15. What about the online experience do you think taught you to become a better educator?

16. There is a debate about maintaining traditional face-to-face courses while also providing flexibility to students and faculty by offering more online course options.
    a. What is the plan for future teaching modalities within your department?
    b. What do you believe should be the future of online teaching within higher education?
    c. In what format do you plan to teach you future courses?

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