“I DON’T NEED ANYMORE ONLINE TEACHING 101.”: FACULTY PERCEPTIONS OF PROFESSIONAL DEVELOPMENT AND THEIR TEACHER SELF-EFFICACY

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ABSTRACT

Throughout the late 20th and early 21st centuries, the culture of higher education has adjusted to meet growing enrollment numbers in online courses. In order to prepare faculty for successful implementation of online learning, faculty training and developments are more important now than ever. Despite opportunities for development and training to prepare for online teaching, faculty members continue to cite challenges related to pedagogy, technology, and administration. Closer examinations of current faculty development opportunities reveal an emphasis of technical and skill acquisition that leads to limited holistic development of faculty members on how professional develop effects faculty members holistically (Renta-Davids et. al., 2016; Fabriz et. al., 2021; Klassen et. al., 2011; Broud & Brew, 2013).

It is necessary to understand how online teaching faculty develop teaching practice among skills, self-belief, and motivation, as all are integral aspects to implementing successful online teaching. The purpose of this qualitative case study was to explore faculty perceptions of a professional development workshop, using teacher self-efficacy as a lens. In this study, I interviewed fourteen faculty members who participated in a training related to online teaching at a 4-year, public institution in the southeastern United States. In these interviews, I explored their perceptions related to the training experiences and their perceptions related to their online courses. I also collected written narratives from these participants at the end of their online courses to explore their reflections on their online course and how they perceive future opportunities for teaching professional development. Throughout the data analysis, I explored patterns and themes related to the theoretical framework of teacher self-efficacy (Tschannen-

Moran et al., 1998). Results from this study are insightful to the creation of more effective faculty developments in the future and overcoming persistent concerns related to online teaching.

CONTENTS

CHAPTER 1

INTRODUCTION

Background of the Problem

With the introduction of the Internet in the 1990s, the possibilities of online course delivery exploded, evolving from correspondence and distance courses to virtual classrooms with educational technology. The National Center for Educational Statistics (NCES) estimated that approximately 19 million students were enrolled in some form of distance or online education in the 2019-2020 academic year (National Center for Educational Statistics [NCES], 2020). These numbers have grown from estimated the estimated 5.5 million undergraduate students who were enrolled in at least one online course in Fall 2012; it was not until Fall 2012 when the United States Department of Education began taking statistics on online education (Hill, 2014). Before 2012, surveys such as the Sloan Survey (now Babson Survey Research Group) gave some insight into exactly how widespread online education was becoming in the United States. In a 2013 report, researchers with the Sloan Survey estimated that the fastest year of growth for online learning was in 2005, with the slowest year of growing 2012; however, while 2012 was considered a slow year, nearly 400,000 additional students enrolled in online education (Allen & Seaman, 2013).

Amidst large enrollment numbers and institutional requests, faculty members on the frontline of providing education, navigate the many changes associated with technology and pedagogy in order to provide equally rigorous academic experiences online as in face-to-face

courses. Such technological developments as learning management systems (LMS) or video conferencing require faculty members to shoulder new roles and competencies that differ from the face-to-face classroom experiences.

Faculty development workshops and trainings provide a "key strategic lever" to help faculty navigate and process these changes and challenges (Austin & Sorcinelli, 2013, p. 85). Specifically, Fink argued that "institutions of higher education 'need to give serious attention to their role in supporting faculty change' because changes in the faculty…are necessary for the improvement of the quality of [online] education programs" (Fink, 2003; Herman, 2012, p. 90). With institutional support in the form of training, development, and resources, faculty members can begin to move towards effective online teaching (Kulviwat et al., 2013).

Researchers (e.g.., Bigatel et al., 2012; Brewer, 2018; Varvel, 2007) have found that in order to increase the success of online learning in higher education, faculty members need to exhibit three areas of competencies: (a) technological, (b) pedagogical, and (c) administrative skills. Professional development opportunities, including trainings and workshops, provide faculty with opportunities to learn skills and competencies for online teaching (Ali, 2019; Masry-Herzalah & Dor-Haim, 2021; Mirzajani, 2016; Wingo et al., 2017; Zalat et al., 2021).

Problem Statement

Yet, despite opportunities for development and training to prepare for online teaching, many faculty members find the transition to online teaching to be complex and challenging. Some of the most common challenges of online teaching include (a) quality of learning concerns, (b) technology concerns, and (c) balancing job satisfaction with online learning (Flavell et al., 2019; Mansbach & Austin, 2018; Mellieon & Robinson, 2021). These challenges are often

realized during a course and often noted by students on end of course evaluations (Lowenthal et al., 2015; Mok et al., 2021).

Quality of Learning Concerns

Quality courses, whether face-to-face or online, require good instructional design, which includes instructional presence within the course with the goal of learner engagement (Arghode et al., 2018). However, faculty have reported difficulty reaching the same level of learner engagement through online courses as they do in their face-to-face courses (Grosse, 2004). Additionally, some faculty members perceive online learning as less rigorous or lower in quality than face-to-face courses (Allen & Seaman, 2013, 2016; Jaschik & Lederman, 2020). Difficulties in online courses (both teaching and perception) were complicated in 2020, when the COVID-19 global pandemic forced higher education into emergency remote teaching to stop the spread of the virus. During this shift, higher education faculty observed that students' attitudes, motivations, and self-efficacies impacted on the overall "acceptance of online learning" (Aguilera-Hermida, 2020, Discussion section, para. 1). Lack of acceptance of online learning, in turn, affects the quality of learning (Mansbach & Austin, 2018; Stickeny et al., 2019).

Technology Concerns

Technology is another concern of faculty when teaching online. Among technology concerns, faculty are primarily concerned with aspects of technology integration in online courses (e.g., Mansbach & Austin, 2018; Stickeny et al., 2019). Technology integration concerns stem from potential failure, perceived value/relevance, workload and time constraints, lack of confidence, general technology anxiety, and/or lack of resources (Flavell et al., 2019). Ashrafzadeh and Sayadian (2015) found that a lack of technology integration stems from a lack of training and thus a perceived lack of competency in technology. Additionally, Murray and

colleague (2014) noted that faculty report low levels of self-efficacy in course design and accessibility measures. There are growing demands for and policies requiring accessibility within online leaning (Murray et al., 2014). As educators within higher education, faculty must attend to members technology demands that are often very different from their face-to-face courses.

Balancing Job Satisfaction

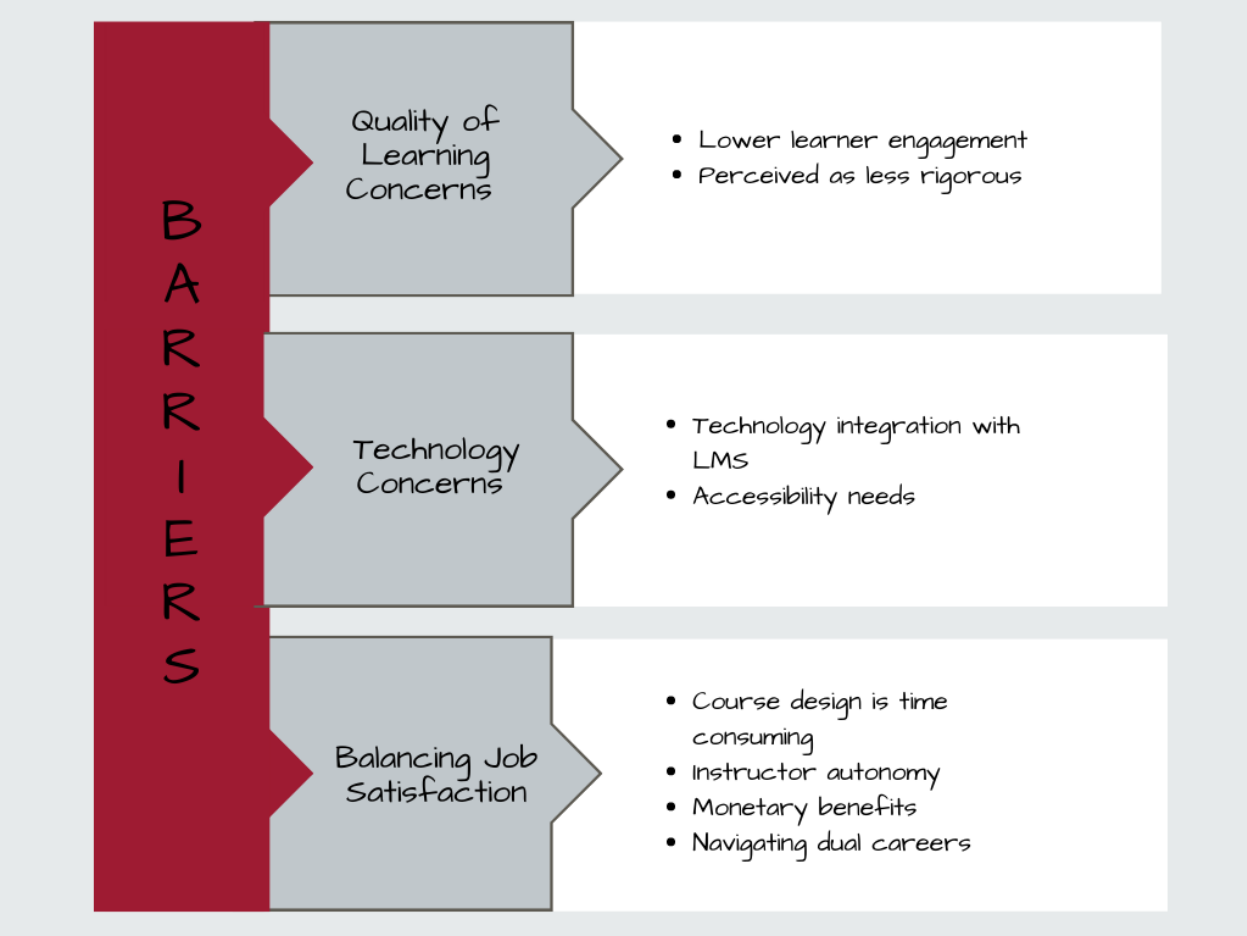
In conjunction with the demands of course designing and technology, faculty members are also concerned about the role of work in online learning. Faculty members have remarked that course design and instructor presence elements of online teaching monopolizes their limited time dedicated to teaching (Jaschik & Lederman, 2020; Mansbach & Austin, 2018; Stickeny et al., 2019). Faculty teaching online at institutions offering training resources, instructional designer support, and/ or monetary benefits to instructors for online instruction are more than likely to have increased job satisfaction; additionally, instructors at institutions offering more instructor autonomy within course design are more likely to report job satisfaction (Mansbach & Austin, 2018; Stickeny et al., 2019). However, not all institutions provide support to faculty detaching online courses (e.g., trainings, instructional designer support, monetary benefits) and not surprisingly, job satisfaction among online faculty fluctuates between institutions.

Additionally, other faculty demographics contribute to overall satisfaction, including the faculty appointment type. As of 2018, non-tenure and part-time faculty members outnumbered tenured and tenure-track faculty members nationally (American Association of University Professors, 2018). While these faculty appoints are made by institutions in a cost-saving measure, many of these non-tenure and part-time faculty members also represent “dual career” faculty (Austin & Sorcinelli, 2013). As opposed to being an early career academic, these dual career faculty members transition between their professional industry and academia. For many

professional fields, such as engineering, business, and healthcare, industry or clinician faculty roles are desired or required for program accreditation (Boyle et. al., 2013; Brown & Sorrell, 2017; Finklestien et al., 2016; Garrison, 2005; McCall et. al., 2021). While these faculty members provide valuable teaching experiences to students, these instructors find "the overall context of the academic environment hard to grasp" (Brown & Sorrell, p. 207). Such specific challenges within the academic environment that these dual career faculty members identified included working outside traditional work hours, teaching unfamiliar and set curriculum, and inconsistent grading (Brown & Sorrell, 2017). As a result of little structure or professional development, recruitment and retention in these roles remain in flux (Boyle et. al., 2013; Brown & Sorrell, 2017; Garrison, 2005; McCall et. al., 2021). An overview of these three areas of perceived barriers can be found in Figure 1.

Figure 1 .1

Overview of Online Teaching Barriers



Skill Based Faculty Development

There are persistent concerns related to and barriers in quality online teaching. In recent past, faculty development opportunities have emphasized technical and skill acquisition to implement online teaching (Baran et al., 2011; Rennert-Ariev, 2008). However, there has been limited evaluation (see Fabriz et al. 2021, p. 740; Klassen et al., 2011, p. 24) of how these professional development opportunities have impacts faculty self-beliefs, contextual knowledge, and motivation (Fabriz et al., 2021; Kunter et al., 2013). In their synthesis, Broud and Brew (2013) outlined how tasks and skills within teaching are intertwined with the self-beliefs,

contextual knowledge, and motivation of the instructor; however, skill-based trainings and developments seek to separate these factors, which "inhibits effective development" and effective teaching performance (p. 211). It is from this intense focus on skill-based training that faculty members may be unable to transfer skill knowledge into contextual knowledge for effective teaching (Baran et al., 2011; Jaramillo-Baquerizo et al., 2018; Rennert-Ariev, 2008).

Reconceptualizing Professional Development with Teaching Self-Efficacy

In order to reconceptualize faculty professional development for teaching, alternate viewpoints are needed. Tschannen-Moran et al. (1998) offered a theoretical model on teacher self-efficacy, which is "belief in his or her capability to organize and execute courses of action required" after balancing the judgement of one's personal skills, the context of the classroom environment, and potential consequences of action (Tschannen-Moran et al., 1998, p. 233). The model of teacher self-efficacy includes how faculty receive efficacy information, how faculty interpret or process that information, how faculty enact their decisions, and the resulting consequences or actions of their decisions (Tschannen-Moran et al., p. 228). Teachers with stronger sense of teacher self-efficacy are more likely to set goals and experiment with teaching methods that meet the needs of their contextual classroom, in order to meet the needs of their students (Tschannen-Moran et al., p. 223).

While this theoretical model was developed for K-12 teacher development, several higher education scholars have extended this model to the work of teaching in postsecondary contexts. For example, Klassen et al. and Ismayilova and Klassen argued that those participating in a professional development should increase their self-efficacy beliefs, or self-belief in one's capacity to execute a task. Additionally, the authors of these two studies argued that argued that professional development opportunities should allow opportunities for participants to engage

with self-efficacy sources; for example, the completion of specific task completion (i.e., contextual task completion), paired with observations or verbal feedback can increase one's self-efficacy (Ismayilova & Klassen, 2019). While Klassen et al. and Ismayilova and Klassen extended Tschannen-Moran et al.'s model to higher education teaching, both studies remain true to the original theoretical model, by including such concepts as motivation and dual cognitive process (Tschannen-Moran et al., 1998).

Within the teacher self-efficacy framework, professional development opportunities that allow participants to engage with contextual tasks and skills can increase their self-efficacy and their teaching practice. In online teaching, faculty currently face barriers regarding pedagogy, technology, and workload (Mansbach & Austin, 2018; Mellieon & Robinson, 2021; Flavell et al., 2019). However, reconceptualized professional developments with teacher self-efficacy can allow faculty to evolve in their practice; in their evolved practice, faculty members can form new "patterns of understanding and interactions…in a contextualized" environment and face the challenges and concerns of online teaching (Boud & Brew, 2013, p. 211).

While self-efficacy and teacher self-efficacy frameworks holds promises of more comprehensive trainings within faculty development, more diverse research related to within teacher self-efficacy is needed. First, many existing studies are of a quantitative nature (e.g., Almuhammadi, et al., 2020; Bowman et al., 2019; Connelly et al., 2017; Culp-Roche et al., 2021; Fabriz et al., 2021; Holloway-Friesen, 2021; Rooney et al., 2020; Strickland-Davis et al., 2020). While these quantitative studies suggest overall positive increases of teacher self-efficacy, data were collected through self-reported surveys, leaving out the "how and/or "why" (Renta-Davids et al., 2016) For example, Glackin and Hohenstien (2018) argue that these quantitative studies of teacher self-efficacy cannot "capture the multifaceted dimensions of teacher self-efficacy"

(Glackin & Hohenstien, 2018, p. 273). Therefore, researchers still do not know *how* or *in what manner* did teacher self-efficacy increase during the faculty development (Glackin & Hohenstien, 2018; Klassen et al., 2011). With more narrative insights from the faculty participants, more effective faculty trainings can be developed with and thus remove barriers surrounding online teaching.

Purpose Statement

The purpose of this qualitative case study was to explore faculty perceptions of a professional development workshop on the topic of online teaching, through the lens of teacher self-efficacy. Despite opportunities for development and training to prepare for online teaching, persistent concerns and barriers to online teaching remain. Skill-based faculty developments do not fully address these barriers and concerns, as these developments separate skill development from other effective teaching concepts, such as teacher self-beliefs, contextual knowledge, and motivation. Instead, faculty developments using a teacher self-efficacy framework allow faculty to develop holistically, as opposed to developing one element of their professional practice. Qualitative studies are the best approach to understand these trainings which has implications for how more effective faculty trainings can be developed that reduces the number of perceived challenges related to online teaching. Conducting a study of this nature provided insights for more effective faculty developments in the future and decreased perceived barriers related to online teaching.

Significance of Study

With the growing demand for online learning, post-secondary institutions are allocating more resources to online teaching. Institutions understand that online education offers students an opportunity to earn a degree of higher education remotely. The COVID-19 pandemic

expediated the growth of online learning, with brick-and-mortar institutions scrambling to find ways to offer a "middle ground" between on-campus and online practices (Blumenstyk, 2021). Student evaluations in relation to online teaching since the pandemic have revealed emerging dissatisfaction regarding their online learning experiences (Mok et al., 2021). The COVID-19 pandemic has highlighted the need for more structured student connections and student experiences that mimic on-campus, residential interactions with instructors. While online learning offers institutions the ability to cut costs and increase profits, online learning will only be sustained at institutions if faculty members can successfully teach online (Feldstein, 2020). With this initiative, supporting online teaching has become mission critical for faculty and academic developers.

For faculty, this study will provide significant insights into their pedagogical practice. For many faculty members, teaching (face-to-face and online) is not overly valued, and faculty are not rewarded for their contributions to quality teaching (King, 2019; Tang & Chamberlain, 1997). This deemphasis on quality teaching in the university setting is consistent with how graduate students are encouraged to pursue research endeavors over teaching (Brownell & Tanner, 2012). As a result, many faculty members approach the task of online teaching at the university level as trial-by-fire, and many faculty members end up burned. Many faculty members do not receive adequate pedagogy training in their graduate programs, or after being hired into their positions, and thus experience stress as they approach teaching positions (face-to-face and online) with stress. While quality teaching may not seem valued institutionally, most faculty want to teach effectively (King, 2019; Tang & Chamberlain, 1997). The lack of training and/or ineffective resources dedicated to developing pedagogical skills within higher education

increases stress, burnout, and decreased job satisfaction among faculty (Mansbach & Austin, 2018; Stickeny et al., 2019). Smollin and Arluke (2014) write

> Faculty members endure substantial anxiety and pressures due to a number of factors: the conflicting demands of publishing and teaching for tenure and promotion, fear that student criticism might endanger tenure, isolation and uncertainty about how to access resources to improve their teaching, and a disconnect between their experiences as students compared to experiences of their own students (p. 29).

Thus, developing quality training for faculty teaching online is critical to improve quality teaching, as we as improve teacher self-efficacy and job satisfaction to reduce anxiety and burnout. This study will explore such a training and faculty perceptions from that training. Therefore, this study can provide faculty with a sense of how to develop their own pedagogical practices.

This study also provides insights to academic developers. As an identified relatively new profession, academic developers are often identified as "guiding individuals, groups, and institutional practices [that] encourage enhanced support for teaching and learning" (Debowski, 2014, p. 50) who may be able to enact change. Academic developers at an institution can include provosts, deans of an academic college, directors of a teaching and learning center, or departmental chairs (Fossland & Sandovoll, 2021). Given the direct relation between the work of academic developers and the overall institutional commitment to sustain online learning, it would follow those academic developers would also be committed to supporting online teaching and learning. By gaining a better understanding of how faculty members perceive professional development related to online teaching, academic developers can leverage decisions regarding faculty development and influence potential institutional changes (Herman, 2012; Wood et al.,

2011). As a result of this significance, it will be critical to also add a corresponding lens to the study that analyzes for faculty perspectives of on future faculty needs in the area of teaching professional development.

Overview of Methodology

Using a qualitative case study approach, I studied a bounded population to explore perceptions of a professional development workshop and perceptions of the workshop in relation to their online courses. I conduced two semi-structured interviews using video conferencing with ten faculty members who participated in the professional development. Data was analyzed using a coding process to determine themes related to research questions.

More specifically, using a teacher self-efficacy lens (Tschannen-Moran et al., 1998), I first studied how faculty, who completed a professional development workshop, described or narrated changes in their teacher self-efficacy during the training. From these training perceptions, I explored how faculty experienced changes in their skills, self-beliefs, and motivations. Additionally, I explored how faculty perceive connections between the professional development and their online courses. With these perceptions, I studied how faculty perceive changes in their teacher self-efficacy since the conclusion of the training and in the midst of teaching their own online courses. Finally, I analyzed how faculty members at this site envision future professional development opportunities for teaching online, in order to contribute to the significance of the study. The following research questions guide this study:

- RQ1: How do faculty members who have completed the training describe or narrate changes in their teacher self-efficacy during the training?
- RQ2: How do faculty members who have completed the training describe changes in their teacher self-efficacy since the conclusion of the training?

- RQ3: How do faculty who have completed the training envision continued engagement, support, and professional development regarding online teaching?

CHAPTER 2

LITEREATURE REVIEW

Overview & Introduction

Throughout the late 20th century, the culture of higher education has adjusted to meet growing enrollment numbers in online courses. With the development of the Internet, institutions were able to accommodate large enrollment numbers and growing student diversity, and students responded in kind (Allen & Seaman, 2013; Hill, 2014; Thelin, 2017). As opposed to face-to-face classrooms, students could now gain college credit through more flexible options, such as massive open online courses (MOOCs), blended learning environments, or asynchronous learning. With increasing demand for online education in higher education throughout the 2000s and 2010s, faculty members found themselves thrust into new, virtual classrooms with new expectations (Allen & Seaman, 2013; 2016).

In order to prepare faculty for successful implementation of online learning, faculty training and developments are more important now than ever (Kamel, 2016). However, many opportunities for faculty development and training have taken a tone of technical and skill acquisition to implement successful online teaching (Rennert-Ariev, 2008, p. 113). Some of the critiques of the technical focus of faculty development opportunities include inconsistent findings among studies and limited knowledge on how professional development affects faculty members holistically (Broud & Brew, 2013; Fabriz et al., 2021; Klassen et al., 2011; Renta-Davids et al., 2016). Additionally, as will be demonstrated throughout this literature review,

some of the foundational studies surrounding faculty roles and competencies in online education were conducted from restricted perspectives and methodology. These studies, and studies inspired by these foundational findings, are ultimately "limited in terms of bringing teachers' voices in the process of teaching, thus creating the potential for teachers' regression into passive roles" (Baran et al., 2011, p. 431).

Therefore, it will be argued through this literature review that current literature for faculty development lacks critical perspectives when approaching online faculty members, and primarily emphasize skill development. Skill development in faculty development is characterized by faculty roles and competencies associated with online teaching. This review will first draw on trends in faculty development, including a detailed discussion on perceived faculty roles and competencies in virtual classrooms. This section of the literature review will not only contextualize the transition faculty members face when entering online teaching, but also provide examples from literature on the prevalence of faculty role and faculty competency within faculty development studies. Following the section on faculty roles and competencies, I will then outline the problems with implementing skills-only faculty development. By using a summary of research studies, this section of literature will examine how participants are limited in current faculty development studies in their ability to interpret training experiences, investigate their own competencies, and relate to their contextual surroundings.

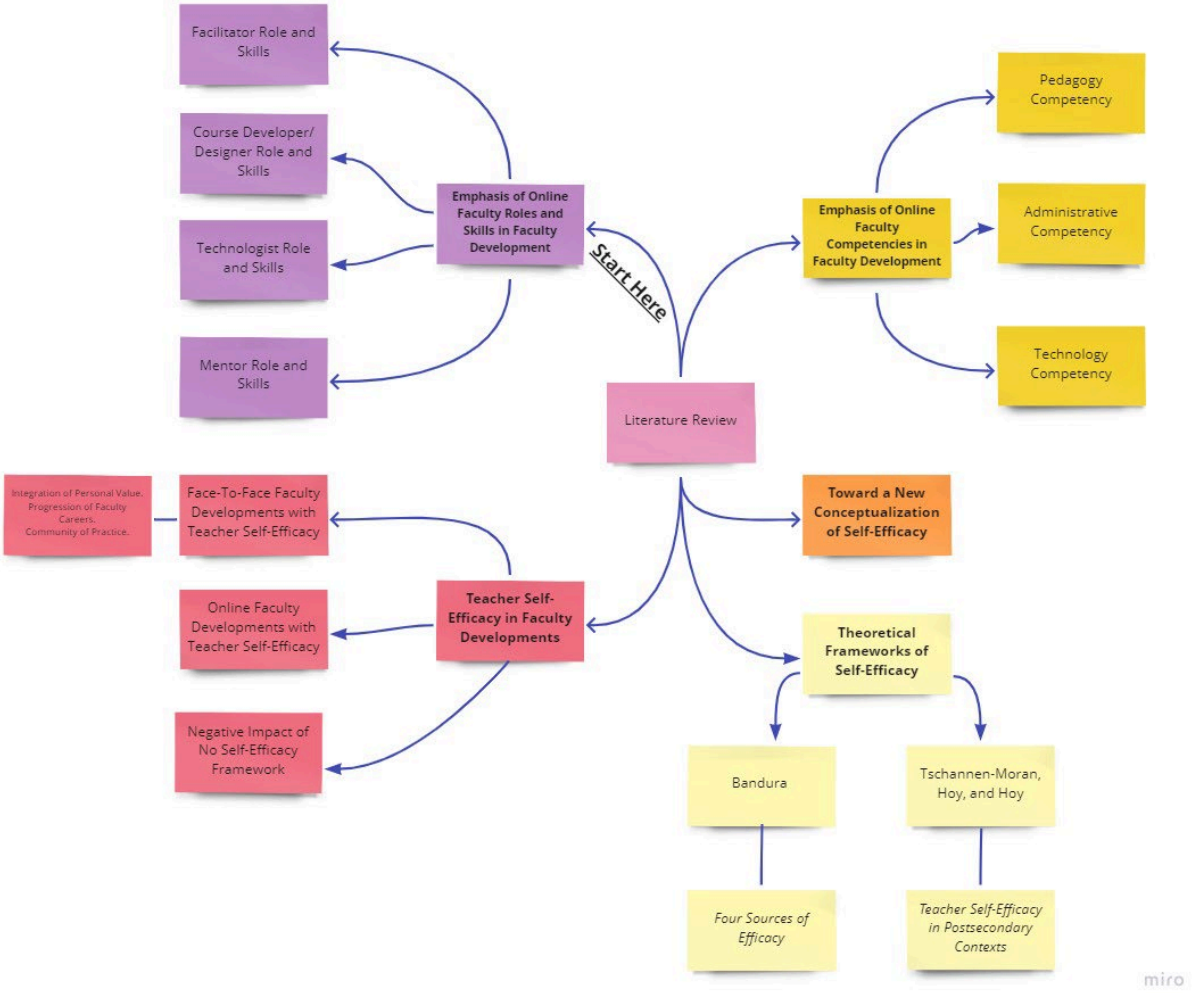
From this section, the literature review will draw on Tschannen-Moran, Hoy, and Hoy's (1998) theoretical model of teacher self-efficacy, as rooted in Bandura's (1977) theory of self-efficacy. This theoretical framework will not only situate this study within larger literature, but also provide conceptual elements to guide how this study should be organized and produced (Grant & Osanloo, 2014). By positioning this section of theory in this particular order, I will

argue in the following sections how the theoretical framework of teacher self-efficacy can bring a balanced approach to faculty development opportunities by incorporating skill acquisition, knowledge, beliefs, motivation, self-regulation, and individual reflection (Baran et al., 2011; Kunter et al., 2013; Wheatly, 2005). This section on theory will also state how my study furthers knowledge in teacher self-efficacy among faculty in online teaching, which is previously under-researched.

After describing the theoretical framework, I will illustrate further literature gaps that exist within teacher self-efficacy studies. In current literature there are few qualitative case studies on teacher self-efficacy among faculty, and there are few qualitative studies conducted on teacher self-efficacy from the perspective of online faculty members. This literature review will conclude on how this qualitative case study intends to address the literature gaps. A conceptual map of the literature review can be found below.

Figure 2 .1

Chart of Literature Review Organization



Emphasis of Online Faculty Roles and Skills in Faculty Development

As the popularity of online education grows, online teaching becomes more prevalent in institutions of higher education. As a result, faculty members must adjust their teaching responsibilities to adapt to new roles in virtual classrooms. A study by Neely and Tucker (2011) sought to "unbundle" the roles and responsibilities of online faculty members. From the data of their study, Neely and Tucker (2011) were able to determine a model of faculty roles and competencies for online course delivery including, course instructor/facilitator, curriculum

writer/subject matter expert, instructor/grader, academic advisor, and instructional designer. A more recent iteration of this study by Martin, Budhrani, Kumar, and Ritzaupt (2019) synthesized qualitative interviews from online instructors and their experiences. From these interviews, the researchers identified five different roles and competencies an online instructor assumes: facilitator, course design, content manager, subject matter expert, and mentor (Martin et al., 2019). While these two studies serve as examples of research related to online teaching, it is apparent from these findings that online faculty members are juggling many different responsibilities.

For the purpose of this study and literature review, a detailed sketch of the roles and competencies of faculty members in an online classroom would be necessary. First, by providing an in-depth look at faculty roles in an online classroom, it will better explain how online faculty members have face, and continue to face, different responsibilities from those in a traditional, face-to-face teaching setting (Horvitz et al., 2014). Intertwined with the explanation of roles of faculty members in online classrooms, I will also outline associated competencies and skills for faculty members in online classrooms, as they have appeared in trainings and associated studies. Such explanation of roles and competencies will describe why faculty development is important to the successful implementation of online teaching (Masry-Herzalah & Dor-Haim, 2021).

While it is crucial to understand the transition from face-to-face teaching to online teaching, I will also characterize the frequency of faculty role and faculty competency-based studies in faculty development literature. This portion is significant in solidifying the frequency of faculty role and faculty competency-based studies not only through the number of studies, but also through the publication date of studies in this section. These studies in this section are referenced as “seminal studies” that originated the concepts of faculty roles and competencies in

online teaching in the early to mid-2000s when online learning was in its boon; this is referenced through the publication dates of the articles and references within the articles (Allen & Seaman, 2013; Aydin, 2005; Bawane & Spector, 2009; Bigatel et al., 2012; Goodyear et al., 2001; Varvel, 2007; Williams, 2003).

In this portion of the literature review, I will focus on four faculty roles most prevalent throughout online faculty development literature: facilitator, course designer, technologist, and mentor. After a detailed sketch of faculty roles, I will also introduce three competency areas as they relate to online faculty roles: pedagogy, technology, and administration (Brewer, 2018). In each of the following subsections, foundational studies as well as more recent studies will be highlighted in order to illustrate how online faculty development literature has become more focused on roles and competencies. A table of studies related to online faculty roles and skills in faculty development has been provided below in Table 2.1.

Table 2.1

Overview of Studies related to Online Faculty Roles and Skills in Faculty Development

Author/ date	Faculty Role(s) Discussed	Data collected from experts or faculty?	Methodology
Aydin (2005)	Facilitator, Course Developer, Mentor	Faculty	Quantitative
Allen, Ebby, Poteet, Lentz, & Lima (2004)	Mentor	N/A-meta-analysis of 25 studies on faculty mentoring	Quantitative
Bawane & Spector (2009)	Technologist, Mentor	Faculty	Quantitative
Goodyear, Salmon, Spector, Steeples, & Tickner (2001)	Facilitator, Course Developer	Experts	Quantitative
Jaramillo-Baquerizo, Valcke & Vanderlinde (2018)	Technologist	Faculty	Mixed Methods
Parks-Stamm, Zafonte, & Palenque (2016)	Facilitator	Faculty	Quantitative

Author/ date	Faculty Role(s) Discussed	Data collected from experts or faculty?	Methodology
Thorpe (2016)	Facilitator	Faculty	Quantitative
Trammel & LaForge (2017)	Course Developer	Faculty	Quantitative
Varvel (2007)	Technologist	Expert	Quantitative
Williams (2003)	Facilitator, Course Developer, Technologist	Expert	Quantitative

Facilitator Role and Skills

As faculty members embark on the new frontier of online education, one of the most referenced shifts in roles included the facilitator role. In a 2001 study by Goodyear et al., researchers found the facilitator role was the largest realm of responsibility online teachers assumed. Researchers found that the label "facilitator" was not simply enough. Instead, researchers drew distinctions between *content* facilitator and *process* facilitator. Within these two distinctions, process facilitator was more "concerned with facilitating a range of online activities that are supportive of online learning" (Goodyear et al., 2001, p. 69). Such supportive activities included welcoming the class, establishing ground rules, creating community, managing communication, modeling social behavior, and establishing one's own social identity (Goodyear et al., 2001). These activities and the accompanying facilitation differed from the work of a content facilitator, which is more "concerned with directly facilitating the learners' growth and understanding of course material" (Goodyear et al., 2001, p. 69). An example of an activity of this nature could include summarizing discussion boards and providing feedback. While the researchers and participants acknowledged there were similarities between face-to-face teaching and online teaching, Goodyear et al. (2001) elaborated the criteria for good teaching had "moved down a further layer of detail" and thus required different skills and competencies (p. 71).

Some studies have built on the work of Goodyear et al. (2001) to build contextual layers to the role of facilitator. Williams (2003) found contextual differences among facilitation roles; however, as opposed to the Goodyear et al. (2001), Williams' (2003) data categorized the role of the facilitator more as instructor or facilitator and site facilitator or proctor. The key difference that allowed Williams to make this distinction was the growing use of videoconferencing tools among online education. Aydin (2005) echoed a similar conclusion as Williams; in a 2005 study, participants delineated their facilitator roles between "process facilitators," "content experts," and "material producers" (Aydin, 2005, p. 67). Through this development, faculty members felt that most of their facilitation work was concerned with being a mentor to students, while also balancing roles of developing or delivering content and creating technology elements of course design (such as webpages and PDFs). From these studies, it is apparent that the inclusion of more advanced educational technology in online education meant faculty members also had to adapt to roles of test proctoring, mentoring, and course design, as well as facilitating within online courses. For faculty members in online teaching, these technological developments could add responsibility and require skills that differed from face-to-face courses.

The studies in this particular faculty role are insightful for many reasons. Aydin (2005), Goodyear et al. (2001), and Williams (2003) all have article publication dates in the early 2000s. It was during this time period that the greatest amount of growth was occurring in online education in the United States (Allen & Seaman, 2013). As a result, these studies are significant as they reflect the increased attention being granted to faculty work in online education. Due to these research findings and contextual placements in the history of online education, researchers were able to identify early in the online education trend that faculty roles were indeed changing in response to online education. Within this trend, Goodyear et al. (2001), Williams (2003), and

Aydin (2005) identified many new faculty roles, with course facilitator being one of the most important and consistent of the new roles.

The studies for this faculty role are also insightful due to their methodology and participants. The study by Goodyear et al. (2001) focused an international workshop of emerging online teacher competencies, modeled from expert opinions of researchers. Similar to Goodyear et al. (2011), Williams (2003) built their study on a panel of distance experts to determine roles and competencies of faculty in online classrooms. Both of these studies were built on the expert opinions of researchers, rather than the experiences of faculty members. While these studies are critiqued nowadays for methodology and participants, these earlier studies will become widely cited as some of the first projects to conceptualize faculty roles and competencies in online courses (Bawane & Spector, 2009; Varvel, 2007). These studies would begin a legacy of role and competency-based faculty development that continues into more recent years (Martin et al., 2019; Neely & Tucker, 2011).

Role and competency-based faculty development, specifically for the role of facilitator, continues to persist in more recent literature. Specific studies that evidence these themes included a study observing online group work and discussion boards for successful implementation of course objectives (Parks-Stamm et al., 2016; Thorpe, 2016), as well as interviewing expert faculty members for strategies in implementing successful instructor presences to increase student engagement (Orcutt & Drigus, 2017).

Similar to earlier projects, these studies use the experiences of a few, in order to generalize and create standards for all. Findings from these studies indicated that there were positive responses from these experiences, but there was not a significant positive effect. These inconsistencies accounted for by differences in class sizes, where smaller classes had better

facilitation experiences versus medium and larger sized classes (Parks-Stamm et al., 2016). The inconsistent findings from these studies demonstrate that the implementation of skill alone requires more; instead, there needs to be consideration granted to the contextual factors and needs of the teacher in the online course. Therefore, professional development opportunities need to offer faculty members the opportunity to explore their own experiences, as well as skill acquisition.

Course Developer/ Designer Role and Skills

Another large role online faculty members fill when teaching online is that of a course designer or developer. As early as 1995, researchers stressed that simply "planning [and] visioning" a distance education course would not suffice; instead, faculty must be "aware of the instructional design components of the course…and the technology impact" (Thach & Murphy, 1995, p.62). With these new technological components, the role of the designer, or course developer, begins to emerge for faculty members in online courses. Goodyear et al. (2001) defined this designer role as being "concerned with designing worthwhile online learning tasks" (p. 69). Not only would these tasks need to engage the students in the online environment, but also meet the stated learning objectives for the course. Williams (2003) would build on this definition from Goodyear et al. (2001), by stating course designers not only had to have knowledge of general education theory, but also knowledge of media attributes, skills with Internet tools, and Web-related programming (p. 53).

As the demand for online education continued to grow throughout the early-to-mid-2000s, respective studies of the time also reflected the desire for more robust and tailored course design. Aydin's (2005) research highlighted this demand; in their study, the researcher collected survey data from faculty leaders and their perceptions of successful online teaching. The faculty

participants in this study indicated such a time-demand for creating online materials; as a result, Aydin created a new faculty label for the study called "material producer" (Aydin, 2005, p.67). This label/role was meant to describe the design and development work faculty members were producing for their online courses (Aydin, 2005, p. 64). Varvel's (2007) findings indicated exemplary online faculty members were asked to tailor their course design to all types of students to meet a variety of student needs (p. 24).

As demonstrated throughout the research findings, faculty members must consider many aspects when designing an online course. While an online faculty member may have the foresight to plan a course, similar to their face-to-face courses, faculty must also account for the technological integration in their planning and implementation processes. As a result, designing a course for an online environment is likely to be challenging for faculty members (Jaschik & Lederman, 2020; Mansbach & Austin, 2018; Stickeny et al., 2019).

Similar to previous studies regarding the facilitator role, additional findings are significant not only for their knowledge, but also for their publication date and methodology. In particular, Aydin's (2005) study demonstrates how the role of course designer is a challenging element for faculty members online. The time demands and intertwined competencies of technology differ greatly from a face-to-face course. Additionally, Aydin's study occupies a unique, contextual placement in the history of online education and faculty development; like Goodyear et al. (2001) and Williams (2003), Aydin's study was published in the mid-2000s, during the height of online learning popularity in the United States (Allen & Seaman, 2013). Aydin's study builds on the work of Goodyear et al. (2001) and Williams (2003), while also adding context of the role of course designer and developer. As a result, Aydin's work would

become cited in future works for its contributions to faculty roles and competencies (Bawane & Spector, 2009; Varvel, 2007).

Regarding methodology, Aydin (2005) did employ survey data and was able to incorporate more faculty voices as opposed to expert opinions used by Goodyear et al. (2001) and Williams (2003). However, the use of quantitative data in this instance does not capture all interpretations of faculty roles and experiences of online course design and teaching (Wheatly, 2005).

When analyzing recent literature contributions, the role of course developer and designer is still featured in various research studies. Trammel and LaForge (2017) found that faculty members still struggling with course design, even after training and development. In particular, the researchers found that instructors with high enrollment classes (70+ students) struggled the most with organization, upkeep, and planning in course design; participants reported feeling stressed to provide quality and engaging course content. Additionally, there is an inconsistent level of support between campuses, where some instructors have support from instructional designers and others do not.

In these instances, the implementation of course designing skills are not enough; similar to the analysis of facilitation skills, faculty members must be given the opportunity to learn skills within the context of their own courses and institutions. While one course design ability may work for one faculty member in a smaller course, that same ability may not apply for a faculty member with a 70+ student course. Therefore, professional development opportunities must give faculty members the opportunity to not only learn skills, but also incorporate that skill into their personal teaching practice.

Technologist Role and Skills

As mentioned previously, integration of technology can be complex for faculty members in online classes. The role of the technologist, according to Aydin (2005), is primarily "concerned with making or helping to make technological choices that improve the learning environment available to students" (p. 59). Williams (2003) echoed Aydin's words, stating faculty members need to possess a knowledge of computer hardware skill and skill with the Internet to produce instruction (p. 53). One of the leading studies on the role of technologist comes from Varvel (2007); within their study, Varvel constructed competencies from such sources as the Illinois State Board of Education Professional Teaching Standards (ISBE) and the National Educational Technology Standards for Teachers (ISTE). In Varvel's perspective, it is critical that an online instructor possess technical knowledge so that the instructor can be available to students for support; however, Varvel also argued that faculty members must also possess the ability to plan and implement technology as it relates to pedagogy (Varvel, 2007, Core Competencies section, para. 8). For example, Varvel contended that online instructors should know how to troubleshoot basic computer issues and how to use word processing software to help students and produce content for the course; these were examples of technical roles still required to make a successful online course (Varvel, 2007, Technical Proficiencies section). In addition to having technical knowledge, Varvel argued that a faculty member should possess the pedagogical knowledge to select the appropriate technology resources to meet learning objectives, as well as having a cognitive presence in the course to engage learners (Varvel, 2007, Pedagogical Roles section). Bawane and Spector (2009) found similar distinctions in technology roles as Varvel. In their study, Bawane and Spector put more emphasis on the application of technology in the cognitive presence of the faculty member in the course. They

argued that through the selection and implementation of certain technologies, the faculty member in an online course can "promote more social engagement" and assist student learning that much more (Bawane & Spector, 2009, p. 392). It is through the cognitive presence of the instructors via technology that enriches the course.

While this particular role of technologist appears to have inconsistent perceptions among studies, it is apparent among studies that faculty members must be prepared to assume the role of technologist in their online classes. Exactly *how* faculty members will occupy the role of technologist is contextual to the course. For example, a faculty member may perceive their technology role more in the pedagogical sense when they are designing their course; conversely, a faculty member may perceive their technology role more-so to promote community when interacting with students in their course. Despite these different perceptions, it is evident technology assumes a larger responsibility for faculty members in online courses than in face-to-face courses. While faculty members may use aspects of technology in face-to-face courses, online courses demand faculty members assume to the role of technologist.

Within this discussion of faculty role, Varvel's study is significant for its methodology. Similar to previous studies, the publication date of Varvel's study could still be characterized as mid-2000s and is indicative of increased attention to online learning in higher education. Indeed, Varvel's work would come to be cited in other studies related to the technologist role of faculty online (Bawane & Spector, 2009; Bigatel et al., 2012). However, similar to Goodyear et al. (2001) and Williams (2003), Varvel does not posit the voices of faculty in their work. Instead, Varvel uses existing expert opinions to create competencies, through the Illinois State Board of Education Professional Teaching Standards (ISBE) and the National Educational Technology Standards for Teachers (ISTE). Without the integration of faculty voices and experiences into

data, faculty members are less likely to implement successful online teaching (Stienert et al., 2019; Wheatley, 2005).

The acquisition of technology skills for online faculty members still persists in faculty development, as seen in Jaramillo-Baquerizo et al. (2018). In this mixed method study, researchers analyzed the design structures of 12 professional development programs at various institutions. In their analysis, the researchers found that the 12 professional development designs primarily focused on "intervention designs" and "characteristics of the learner" which related to skills of technology and learner support within the online classrooms (Jaramillo-Baquerizo et al., 2018, p. 352). The qualitative data is most significant within this study; the researchers gathered interviews from 16 participants, who stated that they struggled to transfer the teachings from the training to their respective practices of teaching. Many of the comments from participants highlighted the perceived belief that the trainings did not address the needs of the teachers (Jaramillo-Baquerizo et al., 2018). As a result, teachers in this study struggled to draw personal context to the training material and apply the learnings to their praxis. This study demonstrates that there is a need for professional development opportunities beyond skill acquisition and incorporates teacher's knowledge, beliefs, motivation, and self-concept (Kunter et al., 2013).

Mentor Role and Skills

Finally, one of the most prominent roles faculty members play in online courses is that of a mentor. Within Aydin's (2005) study, they classify this role as one who "provides guidance to student when they are working on their assignments…and/or direct students to related support services" (p. 61). While this role does involve aspects of project management, maintaining digital communication with students, and administrative work, faculty have frequently discussed providing motivation and moral support to students in online courses (Aydin, 2005, p. 73).

Bawane and Spector (2009) discussed these aspects of motivation and moral support in their study; data was collected from a survey of faculty members. The results showed that that faculty members prioritized encouragement to students and enabling students to be self-directed learners. Strategies to increase motivation can include promoting social interaction among students, encouraging student contributions, and providing detailed and effective feedback (Bawane & Spector, 2009).

While college instructors must also implement motivational strategies in face-to-face courses, online instructions have added barriers that do not exist in a face-to-face classroom Online learning is inherently isolated from other students and course instructors, meaning students "lack adequate support among other students" and are likely to have less motivation to learn (Aydin, 2005, p. 73; Jaggers & Bailey, 2010; Xu & Jaggers, 2014). Therefore, in order to increase motivation among students, faculty members must increase their roles as mentors in the classroom.

Similar to previous studies detailed in this literature review, the study from Bawane and Spector (2009) employed quantitative data to explore faculty prioritization of roles in an online classroom. This survey data does attempt to include the faculty voices and experiences, as opposed to the studies of Goodyear et al (2001), Varvel (2007), and Williams (2003). However, this quantitative approach does not capture all possible interpretations and experiences of faculty in their roles in an online classroom (Klassen et al., 2011; Wheatly, 2005).

Within more recent literature, the role of mentor is still emphasized, particularly in conjunction with role modeling. Allen et al. (2004) conducted a meta-analysis on 43 empirical research related to mentoring in academics. Through this meta-analysis, it was found that mentors (i.e., online faculty members) provide vocation and psychosocial support to protégés

(i.e., students); in return, protégés increase their work output and are more likely to be successful in academics (Allen et al., 2004; Towler & Mitchell, 2014).

However, there are limitations to how successful mentoring skills and strategies are within the contexts of online courses. “Subjective indicators” of mentoring were of the noted limitations in Allen et al.’s (2004) analysis (p.133). Within their analysis of the 43 articles, the researchers found different studies gave different interpretations of mentoring and how to implement successful mentoring strategies and skills. Allen et al. (2004) concluded their meta-analysis by stating a “refinement of mentoring theory” is needed (p.133). It is among this refinement that more subjective views of teaching competency can be entertained, leading to more comprehensive development of teachers in professional developments. With the inclusion of subjective knowledge and contextual factors, skill acquisition may be more successful in professional development opportunities.

Emphasis of Online Faculty Competencies in Faculty Development

At this juncture of the literature review, it is important to distinguish between faculty roles and faculty competencies, as many studies will analyze both aspects. While there are many competency-based studies in regard to education, it is equally significant to contextualize competency-based research in relation to online teaching. For the purposes of this literature review, and research study, a description of online faculty competencies is needed. A table of studies related to online faculty roles and skills in faculty development has been provided in Table 2.2.

Table 2.2

Overview of Studies related to Online Faculty Competencies in Faculty Development

Author/ date	Faculty Competencies Discussed	Data collected from experts or faculty?	Methodology
Bigatel, Ragan, Kennan, May, & Redmond (2012)	Pedagogy, Administrative, Technology	Faculty	Quantitative
Pennsylvania State University (2011)	Pedagogy, Administrative, Technology	Expert	N/A- is the set of competencies created from Bigatel et al (2012)

As a result of adjusting their roles in the online classroom, faculty members then develop more competency in certain skills. Richey et al. (2001) described competency as "a knowledge or skill that enables one to effectively perform the activities of a given occupation" (p.26). Bawane and Spector (2009) detailed competencies ordinates within task analysis; according to these researchers, "teacher roles can be broken down into tasks, tasks into competencies, and each competency into a related group of specific skills" (p. 385). Alvarez et al. (2009) contributed similar ideas as Bawane and Spector but made a defining difference. In their theoretical framework, Alvarez et al. encouraged the use of "socially situated competencies" related to the roles and tasks of each online faculty member (Alvarez et al., 2009, p. 321).

Through recommendations of task analysis and faculty competencies by role, there have been attempts to synthesize which competencies are most important to the work of online teaching in order to implement into practice. The most cited study among the synthesizing competencies is of Bigatel et al. (2012), titled "The Identification of Competencies for Online Teacher Success". This study explored which teaching tasks were considered important to faculty, and through survey analysis, the researchers were able to determine that active teaching,

administrative, and technology tasks were considered most important to teachers. From this ranking of tasks, the researchers were able to recommend future faculty developments related to these tasks, in order for faculty members to develop competencies in these tasks (Bigatel et al., 2012).

This article is somewhat distinguished in comparison because of the implementation of the findings of this article. Many of the researchers of the study served as administrators and instructional designers within the Pennsylvania State University (Penn State) World Campus, which is labeled as one of the "best online bachelor's programs" in the United States (U.S. News & World Report, 2022). From their dual position as researchers and administrators, the 2012 study was concurrently able to form a basis for faculty competencies for online teaching for Penn State World Campus; within these competencies, there are three identified competencies areas within: technology, administrative, and pedagogy (Bigatel et al, 2012; Brewer, 2018; Pennsylvania State University, 2011).

In relation to this literature review, Bigatel et al.'s (2012) study and corresponding Penn State's competencies are important as it will be used to further contextualize how prevalent faculty roles and faculty competencies have become in faculty development literature. Throughout research, researchers explore both aspects of roles and competency; therefore, it is important to have clear definitions of both concepts (Aydin, 2005; Bawane & Spector, 2009; Goodyear et al., 2001; Varvel, 2007; Williams, 2003). This literature review will benefit from such an overview, as I will further articulate how role and competency-based development has become a primary form of training for faculty in regard to online teaching. With this argument established, I will then illustrate in future sections how some current trends in faculty development and training may not capture all the needs of faculty members who teach online.

Pedagogy Competency

Using the Penn State World Campus Faculty Competencies for Online Teaching (2011) as a reference, pedagogy competencies encompass eleven different skills. Those skills include "respond[ing] to student inquiries…have mastery of course content, structure, and organization…[and] monitor[ing] and managing[ing] student progress" (Pennsylvania State University, 2011). This snapshot of the eleven metrics stems from Bigatel et al.'s (2012) study, where the researchers found in their survey that active learning tasks were most important to online faculty; among the 197 respondents, there was a significant response rate among responses associated with providing a collaborative learning environment and being responsive to students (Bigatel et al., 2012, p. 65). As a result, Bigatel et al. (2012) crafted learning competencies that reflected pedological tasks.

The findings from this study are not far-fetched. As seen from previous studies in this literature review, other studies and researchers have referred to the tasks and skills needed to be a pedagogically competent online faculty member. Within Aydin's (2005) study, it was emphasized that faculty members should exhibit appropriate instructional strategies and develop appropriate learning resources, while completing their role of material producer, or facilitator (p. 67). Additionally, Varvel (2007) illustrated similar skills, when he called for online instructors to have skills related to content knowledge and teaching commitment, while completing their faculty role of technologist in an online class (Varvel, Communication Ability section; Time Management Ability section). The feedback between roles and competencies within literature reinforces the prevalence of role and competency-based development in faculty training.

Administrative Competency

Within the administrative competencies presented by Penn State World Campus (2011), there are ten listed competencies. These specific competencies include "log[ging] into the course to actively participate…provid[ing] a comprehensive syllabus that adheres to institutional policies…[and] communicate expectations of student course behavior (Pennsylvania State University, 2011, p. 3-5). These example competencies refer back to Bigatel et al.'s (2012) study, where survey respondents associated successful online teaching behavior with administrative roles.

Somewhat like the pedagogy, other studies have referred to the competency of administrative work within their analysis of faculty roles. Goodyear et al. (2001) identified a faculty role of administrator and associated similar competencies as referring students to support series and effectively managing time and communication (p. 71). Williams (2003) also connected administrative competencies to the roles faculty fill in online classrooms. Within their study, Williams identified an administrative role in online classrooms, but also linked administrative competencies to other roles such as facilitator and mentor (p. 53). Once again, through the overlap of roles and competencies, it is evident faculty development has become more prominent in skill and competency acquisition.

Technology Competency

According to the Penn State World Campus Faculty Competencies for Online Teaching (2011), technology competencies encompass nine different skills. Examples of such skills include "compete[ing] basic computer operations…effectively use course management systems…[and] manage student submissions" (Pennsylvania State University, 2011, p.3). These glimpse into the nine different skills connected to Bigatel et al.'s (2012) study, where survey

respondents indicated with high frequency that behaviors were associated with technology use and successful online teaching implementation.

Other studies have connected faculty roles with this technology competency include Bawane and Spector (2009) and Varvel (2007). In Varvel's study, the researcher detailed that technology competencies and roles in an online classroom are contextual to the "utilization of technology" in the context of the course (Varvel, 2007, Core Competencies section, para. 8). In some instances, faculty may be operating within their mentor roles and supporting students via technical knowledge; in other instances, the instructor is implementing technology for the achievement of course objectives in their role as a facilitator. Bawane and Spector (2009) connect technology competency with the roles of course designer, in that faculty need to possess the skills and knowledge to create and design instructional strategies to achieve student learning outcomes (p. 392). As seen within the other competency areas, studies have intertwined the discussions of faculty roles and competencies within their findings and discussions, and as a result, faculty roles and competencies continue to remain prevalent in faculty development literature.

Summary of Faculty Roles and Competencies in Faculty Development

This section has outlined how studies surrounding the faculty roles and competencies for online faculty have become the basis for faculty development opportunities. Studies began in frequency in the early-to-mid-2000s, as the popularity of online education began taking off in the United States. Within these studies, researchers used either expert opinions or quantitative measures to characterize faculty roles and competencies within online learning. From these early studies, and their resulting categorization of roles and competencies, many faculty developments

studies have been conducted that highlight skill acquisition to prepare for successful online teaching.

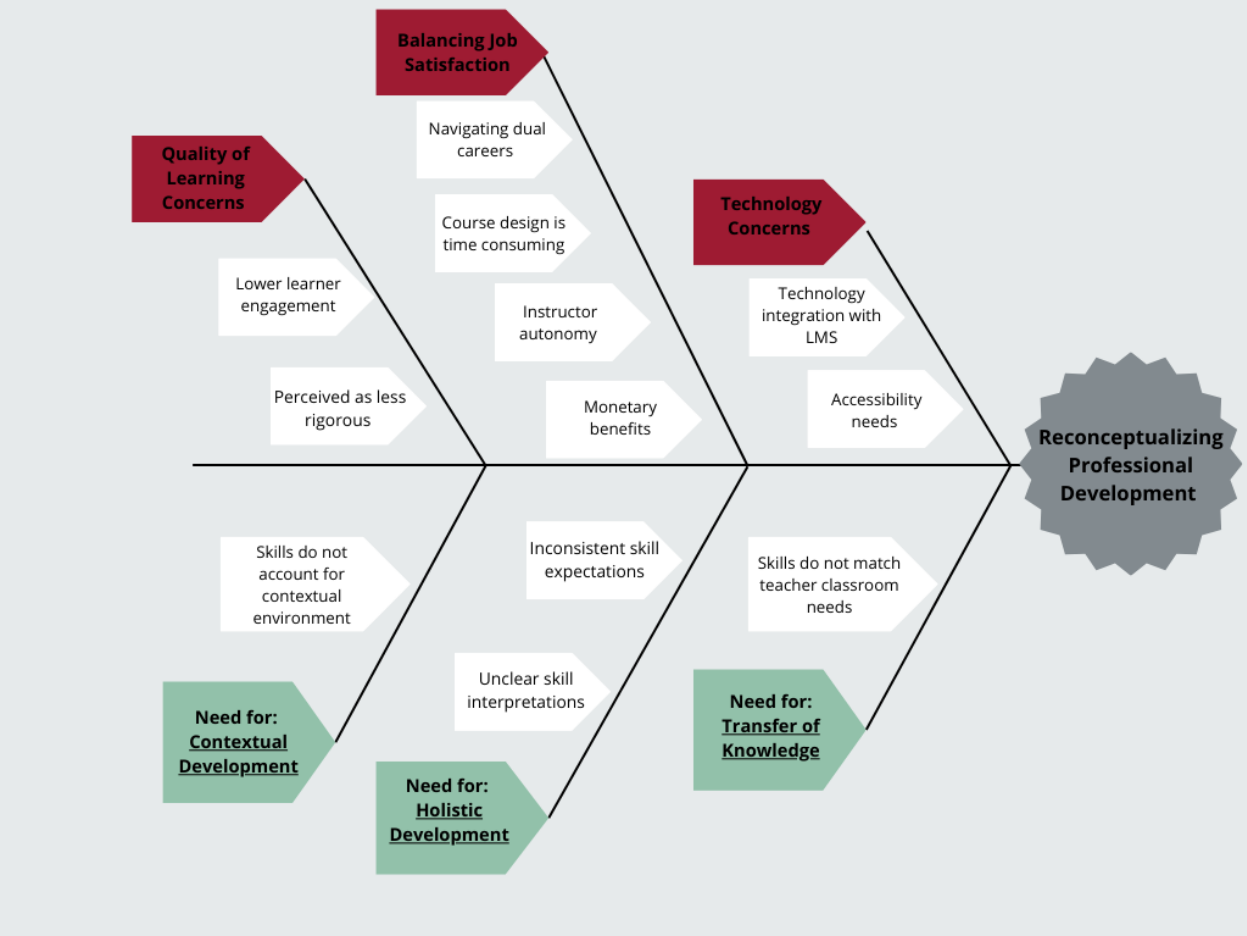
When examining the progress of literature related to faculty development, scholars have noted that faculty development opportunities, and their related studies, emphasize technical and skill acquisition to implement online teaching (Baran et al., 2011; Rennert-Ariev, 2008). This overall tone of technical development was established through several studies in the early to mid-2000s that identified and emphasized the creation of faculty roles in the new, virtual classroom, such as facilitator, mentor, course designer, and technologist (Aydin, 2005; Bawane & Spector, 2009; Bigatel et al., 2012; Goodyear et al., 2001; Varvel, 2007; Williams, 2003). The tone of skill and technical acquisition remains in more current studies, as seen in Allen et al. (2014), Jaramillo-Baquerizo et al. (2018), Parks-Stamm et al. (2016), Thorpe (2016), and Trammel & LaForge (2017). With a fixation on skill acquisition, teaching deficits arise for faculty developments, and thus remaining barriers to online teaching in higher education.

When accounting for documented, perceived barriers to online teaching, current skill-based faculty developments are not proven to consistently improve practice (Allen & Seaman, 2013, 2016; Flavell et al., 2019; Jaschik & Lederman, 2020; Mansbach & Austin, 2018; Mellieon & Robinson, 2021; Stickeny et al., 2019). Limitations within skill-based faculty developments, and their corresponding literature, may be the reason for perceived barriers with online teaching (refer to Figure 1.1). For example, in Parks-Stamm et al. (2016), instructors were concerned that they were not trained to deal with large online class sizes, in conjunction with their facilitation skills, which matches with concerns with of quality of learning and technology (Mansbach & Austin, 2018). Another example accounts for how some institutional types are afford instructional designers and additional resources for course design, while other institutions

may not have the same resources, similar to documented, perceived concerns about job satisfaction (Mansbach & Austin, 2018; Stickeny et al., 2019; Trammel & LaForge, 2017). As emphasized in Jaramillo-Baquerizo et al. (2018), it is possible that the transfer of knowledge from training to the course was not successful, because skill acquisition was prioritized over teacher contextual needs, again echoing concerns regarding job satisfaction and quality of learning (Mansbach & Austin, 2018; Stickeny et al., 2019). These examples ultimately demonstrate that skill-based faculty developments focus only on the development of the skill and do not consider the contextual knowledge and environment of the faculty member, as well as the concerns of quality of learning and job satisfaction. Therefore, these studies demonstrate that a more comprehensive framework is needed to ensure the successful transfer of skill knowledge, as well as considering the needs of teachers in the context of college courses and institutions. Explicit connections between documented perceived barriers in online learning and limitations of skill-based professional development are outlined in Figure 2.2.

Figure 2.2

Concept Map of Reconceptualizing Professional Development



With connections between perceived barriers of online teaching and skill-based professional development, a more comprehensive framework is needed to enhance online teaching in postsecondary contexts. Teacher self-efficacy is such a framework that educators can enhance their "belief in his or her capability to organize and execute courses of action required" after balancing the judgement of one's personal skills, the context of the classroom environment, and potential consequences of action (Tschannen-Moran et al., 1998, p. 233). The purpose of this study is to explore faculty perceptions from a professional development workshop on the topic of online teaching, using teacher self-efficacy as a lens. By incorporating teacher self-efficacy into

faculty developments for online education, not only can faculty-participants overcome concerns regarding online teaching but can also provide better learning experiences to the institution. To contextualize and legitimize this argument, the remaining sections of this literature review will provide studies on the utility of self-efficacy in online teaching, as well as drawing out literature gaps existing within self-efficacy studies. To achieve this, an overview of the theoretical frameworks of self-efficacy is needed first. From this detailed overview of theoretical frameworks, studies which applied the theoretical framework will be examined to solidify the importance of self-efficacy in online teaching, as well as for literature gaps. It is from these literature gaps my study will explore.

Theoretical Frameworks of Self-Efficacy

Bandura

In the mid-20th century, scholars attempted to "account for the individual's capacity for adaptively responding to environmental changes, often referred to as competence" (Maddux, 1995, p. 3). Building on Maddux's and other scholars' works, Bandura produced one of the most popular theories in regard to competency, capabilities, and belief- the self-efficacy theory. Within his 1977 publication "Self-efficacy: Toward a unifying theory of behavioral change," Bandura outlined an individual's changes in behavior are influenced by their environment, efficacy expectations, and behavior outcomes (Bandura, 1977).

Bandura hypothesized self-efficacy "influences choices of behavior …and determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences (Bandura, 1977, p. 193-194). This self-efficacy theory stems from the overarching social cognitive theory, which Bandura describes as a "model of emergent interactive agency" (Bandura, 1989, p. 1175). Within cognitive theories of learning, emphasis is

placed on how the learner acquires, stores, and organizes knowledge (Ertmer & Newby, 2013). As individuals acquire new knowledge, Bandura contended that individuals process and synthesize new knowledge alongside other forms of prior knowledge. Self-efficacy differs from cognitive theories in that this theory intertwines a behavioral element and draws on the "convictions to successfully execute the behavior required to produce the outcome" (Bandura, 1977, p. 193).

It is also critical to note Bandura drew a distinction between self-efficacy and confidence, as well as self-efficacy and competency. Bandura believed confidence is a "non-descript…colloquial term" that does not fully define all aspects of self-efficacy (Bandura, 1997, p. 382). Instead, Bandura related perceived self-efficacy should include elements of "an affirmation of a capability level and the strength of that belief" (Bandura, 1997, p. 382). When drawing distinctions between self-efficacy and competency, Bandura stated "a capability is only as good as its execution…insidious self-doubts can easily overrule the best of skills" (Bandura, 1997, p. 35). Therefore, throughout this study, it is important to emphasize self-efficacy as the self-perception of competence, rather than measuring competency of skills (Tschannen-Moran et al., 1998). Therefore, future research in this study will attempt to draw distinctions between these terms, so the theoretical framework can be rooted in the phenomenon at hand.

Four Sources of Efficacy

Bandura furthered this theory by outlining four major sources of convictions that can inform knowledge and influence changes in an individual's behavior. Those four convictions, also referred to as efficacy expectations, are mastery of experiences, vicarious experiences, verbal persuasion, and emotional arousal (Bandura, 1977). Bandura described the source of mastery of experience as one of "repeated success" in an area of expertise; repeated failures or

early mishaps in the process of knowledge acquisition would lower the self-efficacy of an individual (Bandura, 1977, p. 195). For the source of vicarious experiences, Bandura described this source as "seeing others perform threatening activities without adverse consequences" (Bandura, 1977, p. 197). This source is considered a less dependable source than mastery of experience, as the individual is not relying on the direct formation of knowledge and self-belief, thus is more vulnerable to change. However, this source does show success in decreased fear and exemplification of success (Bandura, 1977). Regarding verbal persuasion, Bandura describes this efficacy source as "an attempt to influence people…through suggestion" (Bandura, 1977, p. 198). Like vicarious experiences, this source of efficacy is likely to be weaker than mastery of experiences, as this source does not provide a hands-on experience with one's own knowledge. However, interaction with verbal persuasion can offer feedback on experiences and behaviors that lead to corrective behaviors. Without verbal persuasion, repeated failures could continue and lead to lower self-efficacy. The final source, emotional arousal, details the "stressful and taxing situations [that] elicit …informative value" around self-efficacy (Bandura, 1977, p. 198). Bandura outlined how fear and anxiety surrounding self-beliefs of incompetence can prevent individuals from acting. These four sources of efficacy provide a guide on how to best predict an individual's behavioral choices.

It is from these four sources of self-efficacy that a person informs their knowledge, and ultimately their action. Through this information process, a person evaluates their sources of self-efficacy (i.e., mastery of experiences, vicarious experiences, verbal persuasion, and emotional arousal) to plan their behavior. After executing their planned behavior, a person then engages a period of goal setting and self-evaluative reactions. It is from this period of goal setting and self-evaluative reactions that motivation emerges. To Bandura, motivation is "forms of physiological

arousal [that] are generated…by arousing trains of thought" (Bandura, 1977, p. 199). As a person evaluates their behaviors, they are "creating self-inducements to persist in their efforts until their performances match self-prescribed standards" (Bandura, 1977, p. 193). Within Bandura's model of self-efficacy, the four sources of self-efficacy, self-belief, and motivation exist within a cycle.

Within Bandura's seminal study, the sources of efficacy are outlined in order of impact of an individual; however, Bandura also noted each source of efficacy needs to be analyzed based on the magnitude of a task, generality of the experience, or strength of the expectation. For magnitude of task, Bandura stated more "taxing performances" will require more efficacy as opposed to that of more simple tasks (Bandura, 1977, p. 194). Regarding generality of experience, it will be important to note if the specific experience requires specialized knowledge or more general knowledge acquired through more general mastery of experiences. Finally, Bandura detailed the strength of expectation, or ability to cope, will be important to detail with the behavior (Bandura, 1977). This additional layer of analysis Bandura included also emphasizes the importance of contextual and environmental factors within self-efficacy. Not only is this contextual analysis important for evaluating self-efficacy, but the contextual analysis will be important to the further development of the theoretical framework of self-efficacy itself. In the next subsection of this literature review, I will demonstrate how the contextual analysis of self-efficacy sources will lead to the development of teacher self-efficacy as an extended framework. With this additional layer of analysis among efficacy sources and extended theoretical framework, a researcher can more fully understand the self-efficacy of an individual instructor at a university level.

Tschannen-Moran, Hoy, and Hoy

Developed separately from Bandura's self-efficacy theory in the 1970s, researchers in a non-profit think tank conducted a nationwide study on schools receiving Title III aid from the Americans with Disabilities Act. In their findings, the researchers attributed "teacher self-efficacy" as a positive teacher characteristic that can help motivate even the most difficult student (Berman & McLaughlin, 1977). The researchers are among the first to define this specific aspect of teacher self-efficacy as a teacher's "attitude about their own professional competency…to have major effects on what happens to projects and how effective they are" (Berman & McLaughlin, 1977, p. 137). While this aspect of self-efficacy is centered within the profession of teaching, this early concept of teacher self-efficacy is more centered in the theoretical underpinnings of the behavior theories of Rotter. Rotter conceptualized the locus of control, which is the belief that one's actions can affect outcomes (Mearns, 2021). The concept of locus of control differs from self-efficacy as self-efficacy is a belief in one's competency to produce action, while locus of control is the belief to affect outcome. Since this early concept of teacher self-efficacy is grounded in behavioral learning theories, this approach to self-efficacy was missing elements of cognitive learning theories Bandura provided in his interpretation.

It was not until 1998, when Tschannen-Moran, Hoy, and Hoy connected the theoretical aspects of Bandura's self-efficacy theory with the aforementioned concept of teacher self-efficacy. In their research, Tschannen-Moran, Hoy, and Hoy (1998) argued teacher self-efficacy was being used inconsistently in research, as this concept came from two opposing frameworks: Rotter's behavioral framework and Bandura's social cognitive framework. Some issues of inconsistency included assessment of teacher self-efficacy, contextual influences of teacher self-efficacy, and interpretation of teacher self-efficacy (Tschannen-Moran et al., 1998). Therefore,

the researchers wanted to draw theoretical underpinnings from both Rotter and Bandura to create a sense of coherence among the term as well within research moving forward.

One of the biggest conclusions these researchers reached through their literature analysis is the distinction between personal teaching efficacy and external or general teaching efficacy. Personal teaching efficacy contends with a teacher's belief in their own competence, while external or general teaching efficacy typically describes how a teacher evaluates "likely consequences of the performance level he or she expects to achieve" (Tschannen-Moran et al., 1998, p. 223). The concept of external or general teacher self-efficacy has had many different definitions throughout literature, according to Tschannen-Moran et al. (1998), and as a result, caused much confusion around past literature. Through the eyes of the researchers, they proposed an integrated model of these two conceptual strands of self-efficacy.

In the opinion of Tschannen-Moran et al. (1998), most of the literature agreed the contextual analysis of a teacher's classroom impacted the individual's teacher self-efficacy. Therefore, the researchers sought to highlight the "situational and developmental nature of classrooms" teachers often find themselves in (Tschannen-Moran et al., 1998, p. 233). This dynamic analysis of teacher self-efficacy mirrors Bandura's (1977) analysis of self-efficacy. While the two models of self-efficacy differ, both models accommodate for dimension and dynamics of change within an individual's self-efficacy. While Bandura's (1977) model encouraged a contextual analysis among the four sources of self-efficacy to account for magnitude, generality, and strength, Tschannen-Moran et al.'s (1998) model seeks to find fluidity among the contextual factors of a teaching environment. From the tradition of Bandura, more theoretical models of self-efficacy have been able to form to fit the domain and context at hand.

Another similarity between Tschannen-Moran et al.'s (1998) model and Bandura's (1977) model is the consideration of the consequences of self-efficacy. Within Bandura's model, a detailed cycle between the four sources of self-efficacy, self-belief, and motivation existed. A person makes a behavior decision based on the four sources of efficacy; after performing the behavior, the person then reflects and evaluates their behavior to create "self-inducements to persist in their efforts" (Bandura, 1977, p. 193). In Tschannen-Moran et al.'s (1998) model, a similar cycle exists, where teachers evaluate their motivation in connection to their sources of self-efficacy and behavior. However, there is a difference in this cycle between the two models: in Tschannen-Moran et al.'s model, teachers appraise their motivation (or "self-inducements to persist") alongside the dual cognitive process of task perception and environment perception. Therefore, teachers are encouraged to appraise their motivation *before* they perform their behavior, as opposed to *after* in Bandura's (1977) model. Tschannen-Moran et al. (1998) refers to this appraisal as "Consequences of Self-Efficacy," where other aspects of teaching are encouraged to be analyzed in relation to self-efficacy, such as motivation, goals, persistence, and risk taking (p. 239). By including an appraisal of their motivation, and other consequences of teacher self-efficacy before performing the behavior, teachers are once again encouraged to take into consideration the contextual environment of the schools and classrooms, before making a behavioral decision.

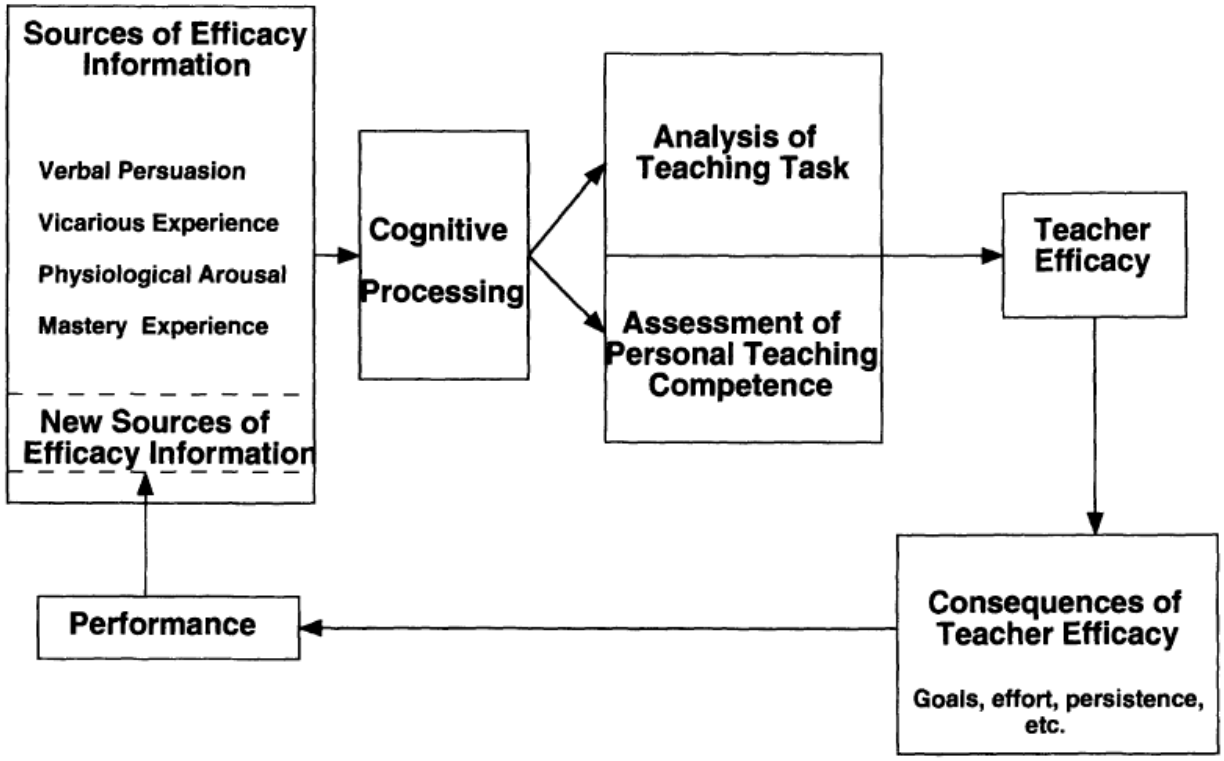
Dual Cognitive Process

In their integrated model, Bandura's four sources of self-efficacy inform a teacher's self-perception of the teaching task and the context and resources of the teaching tasks. Not only do teachers make decisions based on their self-belief in personal competence (which is informed by sources of self-efficacy), but teachers also evaluate the teaching task at hand (which is informed

by contextual factors of the teaching environment and sources of self-efficacy). By highlighting this dual cognitive process, the researchers distinguished their theoretical model from previous frameworks. Pictorial evidence of this dual cognitive process can be seen in Figure 2.3 below, specifically in the second and third box from the left.

Figure 2.3

Model of Teacher Self-Efficacy



From "Teacher Efficacy: Its Meaning and Measure," by M. Tschannen-Moran, A.W. Hoy, and W.K. Hoy, 1998, *Review of Educational Research, 68*(2), p. 288 (https://doi.org/10.3102%2F00346543068002202)

It is within this specific dual cognitive process of teacher self-efficacy that also draws connections to previous conceptual connections of Broud and Brew (2013), Fabriz et al. (2021), Ismayilova and Klassen (2019), and Klassen et al. (2011). In these conceptual arguments, researchers argued for a more comprehensive framework for faculty development and articulated

the need for faculty to "embody" their own selves in faculty developments (Broud & Brew, 2013). Specifically, the researchers argued that faculty develop initiatives needed to position initiatives "within groups and environments with which academics identify…[to] connect sites and practices" (Broud & Brew, 2013, p. 211). By purposefully engaging the faculty member skills in the context of the courses, faculty members will be able to judge, reflect, and ultimately implement appropriate teacher strategies (Fabriz et al., 2021; Tschannen-Moran et al., 1998). Within Tschannen-Moran et al.'s (1998) model and dual cognitive process, teachers are similarly encouraged to analyze the context of task at hand, and their previous knowledge and skills (Tschannen-Moran et al., 1998).

Tschannen-Moran, et al. (1998) offered an example of how this dual cognitive process operates in practice. In their article, the researchers postulate a private high school chemistry teacher might feel inefficacious in a public middle school English classroom, not only due to a lack of mastery of experiences or vicarious experiences in their discipline, but also the concerns about less academic resources from private to public schools (Tschannen-Moran et al., 1998). As a result, Tschannen-Moran et al. proposed an operating definition of teacher self-efficacy as the "belief in his or her capability to organize and execute courses of action required" (Tschannen-Moran et al., 1998, p. 233).

Teacher Self-Efficacy in Postsecondary Contexts

While this above example does provide insight into application of Tschannen-Moran et al.'s theoretical model, their research is primarily conducted in the context of K-12 education. There are existing studies that attempt to link the theoretical framework of teacher self-efficacy with the specific contextual work of faculty in higher education. In order to achieve this theoretical application, several factors between the two educational environments must be taken

into consideration. The contextual factors of teachers in K-12 and higher education are very different, a primary difference being that higher education faculty members are more autonomous and give priority to producing knowledge through research. However, by separating research self-efficacy and teacher self-efficacy into respective domains, Tschannen-Moran et al.'s theoretical framework can be more evenly applied (Ismayilova & Klassen, 2019). For the purposes of this research study, the definition of teacher self-efficacy will extend to include faculty self-beliefs in their ability to successfully implement an online learning course.

When analyzing faculty developments through the lens of teacher self-efficacy, Fabriz et al. (2021) determined that skill-based faculty development "focuses on changes in participants' attitudes towards or approaches to teaching and learning in higher education while disregarding other aspects of teachers' learning" (p. 740). The researchers went on to further detail how faculty development studies and their results are ambiguous when accounting for different study variables. With these inconsistent findings, it makes it difficult to truly understand how professional development effects faculty members and their resulting teaching practice and self-beliefs (Renta-Davids et al., 2016). Fabriz et al. (2021) used such research studies as Gibbs and Coffey (2004) and Stes et al. (2012) to substantiate their arguments.

Fabriz et al. (2021) also pulled from Broud and Brew's (2013) theoretical work to advocate for changes within faculty development literature. In Broud and Brew (2013), the researchers synthesized 25 academic articles related to faculty development and determined that a new conceptualization of professional development beyond skill acquisition is needed. Specifically, they articulated that skills and task vary based on complexity, time, and participant control; therefore, there is a need to incorporate faculty "participation in handling problems and developing work processes" in trainings, so that faculty members can relate tasks to their context

(Broud & Brew, 2013, p. 216). Broud and Brew (2013) referred to this level of engagement in trainings as "embodiment," where the whole person engages in practice, not just their intellect and skills (p. 212).

Fabriz et al. (2021), as well as Klassen et al. (2011) and Ismayilova and Klassen (2019), took these concepts and arguments from Broud and Brew (2013) and connected the concepts to the theoretical framework of Tschannen-Moran et al. (1998) teacher self-efficacy. Specifically, Klassen et al. (2011) and Ismayilova and Klassen (2019) argued that participants should be given opportunities to engage with self-efficacy sources within professional development trainings; for example, faculty members who have the chance to complete a teaching task in the context of their teaching environment, while observing others and receiving feedback, is more likely to have increased self-efficacy (Ismayilova & Klassen, 2019). In the connection to the teacher self-efficacy framework, researchers argued that teacher self-efficacy gives an opportunity to increase effective teaching practices.

The incorporation of self-efficacy as well as teacher self-efficacy into faculty developments not only allow more effective teacher development but can offer a well-structured framework for interpretations. When skill development is the goal of trainings, findings from faculty development studies only offer "subject matter and specific content from the program" (Fabriz et al., 2021, p. 740). As a result, practitioners and stakeholders may struggle with interpreting study findings and applying the results to their institutional contexts. By evaluating self-efficacy instead of skill acquisition, practitioners and stakeholders did not have to contend with finding studies that match their specific institutional contexts but can instead focus on the comprehensive development of teachers.

Teacher Self-Efficacy in Faculty Developments

This section of the literature review will illustrate how teacher self-efficacy is used within faculty development practice. In order to organize this specific section, studies will be categorized based on the intent of their faculty development (i.e., was the faculty development intended for face-to-face teaching development or online teaching development?). After studies are organized on these criteria, studies will be presented based on themes found within the studies. A table of all studies and their attributes is included in Table 2.3.

Table 2.3

Overview of Teacher Self-Efficacy Studies in Higher Education Since 2017

Author/ date	Intent of Faculty Development	Researcher identified theme	Methodology	Country
Almuhammadi, Assalahi, & Madini (2020)	Face-to-Face teaching	Community of Practice	Qualitative	Kingdom of Saudi Arabia
Bajwaa, De Grassetc, Audetatb, Jastrowd, Lepouriele, Daof, Nendazb, & Perrong (2020)	Face-to-Face teaching	Community of Practice	Quantitative	Switzerland
Bowman, Culhane, Park, & Kucera (2019)	Face-to-Face teaching	Progression of faculty careers	Quantitative	United States
Connolly, Lee, & Savoy (2017)	Face-to-Face teaching	Progression of faculty careers	Quantitative	United States
Culp-Roche, Hardin-Fanning, Tartavoulle, Hampton, Hensely, Wilson, & Wiggins (2021)	Online teaching	Previous Teacher Self-Efficacy leads to success	Quantitative	United States

Author/ date	Intent of Faculty Development	Researcher identified theme	Methodology	Country
Fabriz, Hansen, Heckmann, Mordel, Mendzheritskaya, Stehele, Schulze-Vorberg, Ulrich, & Horz (2021)	Face-to-Face teaching	Integration of personal values	Quantitative	Germany
Gbemu, Sarfo, Adentwi, Emmanuel, Aklassu-Ganan (2020)	Face-to-Face teaching	Negative Impact of No Teacher Self-Efficacy	Mixed Methods	Ghana
Hall, Lee, & Rahimi (2019)	Face-to-Face teaching	Negative Impact of No Teacher Self-Efficacy	Quantitative	69 Countries
Holloway-Friesen (2021)	Face-to-Face teaching	Progression of faculty careers	Quantitative	United States
Rooney, Enszer, Maresca, Shah, Hewlett, & Buckley (2020)	Face-to-Face teaching	Integration of personal values	Quantitative	United States
Strickland-Davis, Kosloski, & Reed (2020)	Face-to-Face teaching	Integration of personal values	Quantitative	United States
Yin, Hanb, & Perron (2020)	Face-to-Face teaching	Negative Impact of No Teacher Self-Efficacy	Quantitative	China

Since the current amount of literature on faculty and self-efficacy is so large, this protocol of searching aided in the narrowing of scope and focus of the study. The protocol included specific search terms, narrowing by subject matter, and limiting studies to the past six years. I also narrowed the studies by ensuring the included studies contained direct references to or degrees of influences of Tschannen-Moran et al.'s (1998) theoretical model, and the collection of faculty-based data as the main source of data in the study.

Throughout this presentation of studies, these studies will also be analyzed to distinguish how faculty development studies with self-efficacy produce better teaching faculty, than those faculty developments that focus on skill acquisition. Instead of skill acquisition, teacher self-efficacy focuses on the integration of personal values, progression of faculty careers, and developing a community of practice.

Face-To-Face Faculty Developments with Teacher Self-Efficacy

Integration of Personal Values

One of the most prominent side effects of integrating self-efficacy into faculty development is the ability for participants to integrate their personal values and beliefs into the skill acquisition. The ability to integrate personal values and beliefs with skill acquisition allows participants to develop deeper meaning-making experiences, and as a result, participants are more likely to implement successful skills in the classroom. There are studies that demonstrate such a successful integration; for example, the works of Fabriz et al. (2021), and Strickland-Davis et al. (2020) quantitatively surveyed faculty members after attending a form of faculty development to explore gains in faculty self-efficacy. These specific studies sought to "investigate change[s] pf teachers' self-related cognitions" and look for "increase[s] instructors' value of teaching" (Fabriz et al., 2021, p. 742; Strickland-Davis et al., 2020, p. 495). Findings of the study were contextual, based on the institutional type of each study's site. In Fabriz et al. (2021), where the study was conducted in a large, four-year German institution, faculty reported gains in self-efficacy after attending the faculty development. For Strickland-David et al.'s (2020) study, which was conducted in the context of a community college, new and inexperienced faculty members gained the most self-efficacy from the faculty development in

place. While both studies reported slightly different outcomes, both studies reported that participants responded positively to the incorporation of skills and subjective beliefs.

In a similar study, Rooney et al. (2020) worked with a group of engineering faculty members to incorporate more inclusive teaching skills. To evaluate the effectiveness of this developmental opportunity, the researchers used faculty data on mentoring and collaboration that occurred within the training to measure growth of faculty self-efficacy (Rooney et al., 2020). Findings from this study revealed participants felt more at ease with inclusive teaching strategies after conversations around personal values. From this initiative, there was a positive increase of faculty-self-efficacy, as indicated from pre-post test results. (Rooney et al., 2020). Rooney et al., as well as the previous two studies, indicate self-efficacy can not only increase skill acquisition, but also "increase instructors' value of teaching, rekindle their motivation and enthusiasm, and improve their knowledge [and] behaviors," (Strickland-Davis, 2020, p. 495). Without this integration of personal beliefs and skill acquisitions, faculty members would be less likely to integrate teaching skills.

Gaps begin to emerge within the literature within this theme. There is an imbalance between methodology diversity, as all of the identified studies were completed in a quantitative method. Since these studies were conducted in a quantitative manner, they found exposure to skills and reflection did improve teacher self-efficacy; however, these studies did not detail how the source of experiences were perceived by faculty members. Instead, these studies only offer measurements of teacher self-efficacy Another lack of detail among qualitative perceptive is how trainings can be improved. Additionally, there is a skewed perspective as all of the identified studies were conducted in on-campus classrooms. These literature gaps will be addressed in detail in a later section.

Progression of Faculty Careers

Several of the teacher self-efficacy studies have made attempts to demonstrate how self-efficacy can not only improve teaching skills, but also improve the progression of a faculty's career. For example, Bowman et al. (2019) analyzed faculty experiences in response to faculty involvement in a professional development opportunity. Within this specific faculty development, participants not only learned more pedological skills, but also learned to "leverage the experiences" into future experiences in the job market (p. 156). Another supporting research study in this section included a study specifically looking at early career STEM faculty who participated in doctoral pedagogy training (Connolly et al., 2017). This specific study reported that by participating in an instructor preparation course *early in their career development*, new faculty hires were more likely to be enthusiastic and consistent in teaching practices.

Similar to Connolly et al. (2017), another study looked at the experiences of early career instructors, specifically graduate teaching assistants as data sources (Holloway-Friese, 2021). While these individuals have not received their terminal degrees, they nonetheless contribute to the overall instructional system of a university. The findings of this particular study demonstrated a sense of belonging among graduate teaching assistants not only leads to better implementation of teaching skills, but also increases the likelihood of the completion of the terminal degree (Holloway-Friese, 2021).

In these studies, faculty members were able to attend workshops to gain experiences in instructional methods and reflect on their own career development. These studies highlighted how self-efficacy in faculty developments can be used as a framework for long term career decisions and reflection, as opposed to mere skill acquisition. All of these studies reported positive increase in teacher self-efficacy as a result.

Similar to other teacher self-efficacy research studies, Bowman et al. (2019), Connolly et al. (2017), and Holloway-Friese, 2021 still solidify literature gaps. Within these studies, research was conducted from a quantitative lens; this continues to draw out the literature gap of an imbalance of methodology diversity. Additionally, these studies did not have any studies that incorporated representation of faculty self-efficacy experiences in an online classroom. Similarly, these studies continue to measure self-efficacy from a training rather than describe faculty perceptions of their shifting self-efficacy within a training, or perception of needs. More of these literature gaps will be addressed later in this review.

Community of Practice

Another benefit of incorporating teacher self-efficacy into faculty developments is the collaboration and community created among participants. Evidence of such communities has been demonstrated through literature. For example, in a study from Bajwaa et al. (2020), junior faculty members were given the opportunity to experience a coaching faculty development program; throughout this program, participants reported positive experiences of collaborating with coaches and others to create lasting communities that exist after the program had officially ended (Bajwaa et al., 2020). Another study that exhibited evidence of communities of practice included one from the Kingdom of Audi Arabia; within this study, researchers explicitly evaluated English Language Institute instructors' sources of self-efficacy and found mentoring

was one source of higher self-efficacy. As a result, instructors felt mentoring relationships persisted after formal training developments ended and contributed to their teaching successes in the classroom (Almuhammadi et al., 2020).

In these specific studies, faculty members and instructors were able to attend workshops or mentoring opportunities to gain experiences in instructional methods; however, due to an emphasis in self-efficacy, participants in these developments were left with longer lasting impacts that existed after the training concluded. In the perspective of the participants, the framework of self-efficacy within the training opened the door for feedback between participants thus creating a community of practice. As a result, faculty members and instructors are able to implement more successful teaching long after the training conclusion with the aid of their communities.

The studies within this subsection were an even mix between quantitative studies and mixed methods studies and incorporated elements of interviews and observations for data collection (Bajwaa et al., 2020; Almuhammadi et al., 2020). While there are more qualitative studies present in this subsection (one more study), there is still a literature gap. When comparing the frequency of studies thus far in the literature review, there has only been one qualitative study (Almuhammadi et al., 2020). Similar to the previous sections, none of the studies within this subsection were conducted in an online classroom format with an online faculty member. Literature gaps will be explored in a later section.

Online Faculty Developments with Teacher Self-Efficacy. Of the studies identified, only one study was conducted within the context of developing teacher self-efficacy for faculty members who teach online. Within their study, Culp-Roche et al. (2021) defined online teaching self-efficacy as the self-belief that "faculty can effectively manage the online classroom, provide effective teaching, select appropriate technology, and building a sense of community on the online course" (Culp-Roche et al., 2021, Background/literature section, para. 1). The purpose of this study sought to better understand the transition to emergency online learning during the COVID-19 pandemic in Spring 2020. The researchers found faculty members with higher senses of self-efficacy, not larger skill sets, were more successful during the transition than those who had lower sense of self-efficacy. The study concludes more trainings for online faculty members need to include elements of self-efficacy development, rather than skill development. (Culp-Roche et al. 2021).

As opposed to previous portions of this literature review, this study connects to the context of online teaching. While this study does satisfy this particular literature gap, this research is conducted from a quantitative perspective. Culp-Roche et al. (2021) relied on a scale to measure self-efficacy and does not give all possible interpretations of self-efficacy, nor perception of needs within online teaching. More studies with nuanced and detailed experiences of faculty members in faculty developments are needed, so more detailed faculty trainings can be created.

Negative Impact of No Self-Efficacy Framework

Unique studies have investigated the lack of a self-efficacy framework within the context of faculty teaching. While these specific studies were not conducted in the context of a faculty development, their findings are significant to the argument of incorporating self-efficacy into

more trainings. Specifically, two studies identified the emotions of stress and anxiety as sources of low self-efficacy within faculty teaching. Yin et al. (2020) stated stress from organizational changes and teaching challenges cause Chinese faculty members to have lower sense of teacher self-efficacy. Additionally, Hall et al. (2019) found rising institutional demands for teaching and research have caused more burnout and stress in a longitudinal study on faculty self-efficacy.

Another unique study centered around technology integration in the country of Ghana. The researchers in this study found that despite technical training in computers and other resources, instructors still doubted their abilities to use technology in the classroom; as a result, the study found instructors were not using technology in pedagogical practice (Gbemu et al., 2020). All three of these studies and their findings demonstrated that despite large amounts of skill acquisition, faculty members will struggle in teaching practice if there is not an enhanced effort to increase self-belief. The empirical data in these studies demonstrate the importance of self-efficacy.

Summary of Teacher Self-Efficacy in Faculty Developments

Within the studies of this section, many studies were able to demonstrate the positive elements of teacher self-efficacy on their participants. Such positive elements include integrating personal values, encouraging career progression, and creating a community of practice. As these studies demonstrate, teacher self-efficacy is needed.

However, within these studies several literature gaps exist, specifically among methodology and study context. Nearly all studies in this section were conducted within a quantitative methodology, and no studies were conducted from the perspective of faculty experiences in an online classroom. Additionally, the studies within this section continue to measure gains in self-efficacy, rather than describe experiences of self-efficacy forming among

instructors, nor qualitative reflection on teaching needs. With this study, more detailed descriptions of faculty experiences and self-efficacy related to a training can help improve future training for online teaching.

Connections to Study

With these literature gaps in mind, this proposed study can provide more detail into how faculty perceive professional developments and their teaching practice, through the development of teacher self-efficacy. Currently, there is a large emphasis of skill development in faculty development literature that does not encourage engagement with the entire development of the teaching self; this focus on skill development in faculty literature also does not provide a "well-structured theoretical framework that can be incorporated across institutions" and results in inconsistent study findings (Bilal et al., 2019, p. 693). Teacher self-efficacy can be a comprehensive framework to create more effective faculty developments, by engaging faculty members in more comprehensive practices and providing broader application findings. However, faculty experiences and perceptions from training experiences are now missing from the research of teacher self-efficacy studies. As demonstrated throughout the literature review, many teacher self-efficacy studies are of a quantitative nature that measure changes of self-efficacy rather than describing or providing faculty perceptions of how the experiences within trainings effected their teaching practices and self-beliefs. By contributing a qualitative study, I will be able to explore "the process by which teacher self-efficacy develops" in more meaningful detail (Klassen et al., 2011, p. 24). As a result, my first research question will be:

- RQ1: How do faculty members who have completed the training describe or narrate changes in their teacher self-efficacy during the training?

When accounting for in-depth and nuanced perceptions of faculty members who teach online, I will be able to explore the development teacher self-efficacy from a training workshop in more detail, as it relates to online teaching. As a result, future studies can evaluate faculty developments and trainings to develop more responsive opportunities to meet the needs and concerns of online faculty. Another aspect of this analysis will include faculty perceptions of training in connection to their online courses; therefore, my second research question will be:

- RQ2: How do faculty members who have completed the training describe changes in their teacher self-efficacy since the conclusion of the training?

With this research question, I will study how faculty perceive changes in their teacher self-efficacy since the conclusion of the training and in the midst of teaching their own online course. By explore these perceptions, I will be able to study the perceptions of any teacher self-efficacy changes in the midst of their online courses, any possible environmental contributions to changes in teacher self-efficacy, as well as continued reference to the original training. Another aspect of this study will include faculty perceptions of continued professional development in online teaching; therefore, my third research question will be:

- RQ3: How do faculty who have completed the training envision continued engagement, support, and professional development regarding online teaching?

This final research question will contribute to the overall significance to the study and demonstrate how future studies and professional developments can be molded to meet faculty needs of online teaching and continue to bring faculty narratives to the forefront.

With these research questions, I will be able to form the basis of my study. Specifically, the overall purpose of this qualitative case study will be to explore faculty perceptions from a professional development workshop on the topic of online teaching, using teacher self-efficacy

as a lens. By studying faculty perceptions of a professional development in a detailed, qualitative manner, future trainings and implementations of online learning can be enhanced (Klassen et al., 2011 p. 24).

Summary of Literature Review

Throughout this literature review, faculty development literature has been analyzed in an effort to improve the experiences of online faculty members. Throughout the progress of faculty development literature, there has been great emphasis on skill acquisition (Aydin, 2005; Bawane & Spector, 2009; Goodyear et al., 2001; Varvel, 2007; Williams, 2003). However, critiques have argued faculty development literature lack consistent findings and the ability to engage faculty members in a holistic way (Broud & Brew, 2013; Fabriz et al., 2021; Ismayilova & Klassen, 2019; Klassen et al., 2011; Renta-Davids et al., 2016; Sadler & Reimann, 2018).

This literature review then explored the theoretical framework of teacher self-efficacy and its uses in online teaching. By using self-efficacy as a framework for empowerment, faculty members can thoughtfully integrate skills and strategies for successful online teaching. However, even within the teacher self-efficacy framework, literature gaps exist among context-specific environments of online classrooms, as well as how professional development affects faculty members. From these literature gaps, my proposed study will exist.

CHAPTER 3

METHODOLGY

Overview

In this chapter, I will discuss the methods used in this study, beginning with an approach rationale. I will outline proposed research frameworks and explain how the main research question aligned with the research approach. Proceeding this explanation, I will describe data collection procedures and data analysis procedures.

Rationale for Research Approach

As I approach this study, I adopted a constructivist epistemology. As described by Guba and Lincoln (1994), within constructivist epistemology, the researcher aims to understand the experiences of participants while also aiming to reconstruct experiences to develop new knowledge. Specifically, Lincoln and Guba stated the aim of constructivist inquiry is to "understand and reconstruct the constructions that people initially hold, aiming toward a new consensus" (p. 113, author emphasis). The purpose of this study was to explore faculty perspectives of a training, to determine whether a shift in practice within faculty developments would be beneficial. As a result, my role as researcher adopted perspectives of consensus and advocacy to promote new knowledge.

To frame data gathering and analysis, I used the theoretical frameworks of self-efficacy (Bandura, 1977) and teacher self-efficacy (Tschannen-Moran et al., 1998). I used a case-study approach to explore the perceptions of faculty members from a professional development

training through the lens of teacher self-efficacy. A case study of this nature allowed me to study and analyze a phenomenon within a specific instance (Merriam, 1998), capturing specific perceptions of experiences from faculty members who have completed a specific training. Thus, this study will provide theoretical insights and grounding for future faculty development opportunities.

Proposed Research Framework

As defined by Creswell and Creswell (2018), qualitative research is a suitable research approach for "exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (p. 4). Often with qualitative design, the form of inquiry is flexible in order to justify the researchers' worldview and the participants in the setting (Creswell & Creswell, 2018). A case study design will be the selected method for this qualitative study. Though there are many interpretations of case study, this study aligns with the definition of Sharon Merriam's (1989) interpretation of case study, defined by the "end product" of the study (p. 27). Merriam emphasized the end product of a case study should reflect an "intensive, holistic description and analysis of a single instance, phenomenon, or social unit" (p. 27). Within case study design, there is also an emphasis on the unique complexity of each case and understanding those complexities in relation to the contextual factors (Merriam, 1989; Stake, 1995). Stake's (1995) addition of an integrated and bounded system and Yin's (2018) contributions on the creation of research questions, type of case study, and data analysis are also important to the current study. Using Merriam's definition of creating a "holistic and analytic end product," this case study reflected the following elements: a bounded system, contextual research questions, a defined type of case study, and a defined case study analysis.

Bounded System

The bounded system, or a boundary within the case, is a hallmark of a case study. A boundary is created by program or participant characteristics within the case; it is through the creation of a boundary that the case becomes more unique and distinct from the wider population. As a corollary, the boundary also serves as a mechanism to define an integrated system among the programs or people within the case. This integrated system "does not have to be working well, the purposes may be irrational, but [nonetheless] represent a system" (Stake, 1995, p. 2). Within bounded and integrated populations, a case study can more carefully reflect phenomenon complexities.

For the purposes of this study, the bounded and integrated system will be represented by participants at a specific institution who participated in a specific training related to online teaching. The purpose of this study was to collect faculty narratives related to training experiences, in an effort to describe the perceptions of online faculty members from a professional development workshop through teacher self-efficacy which will then result in the development of teacher self-efficacy frameworks within formal faculty development opportunities. By setting a boundary of faculty members in a formal faculty setting (opposed to those who receive faculty development in an informal setting), I was able to collect pointed faculty narratives related explicitly to formal faculty development experiences. This contextual element of formal faculty development is crucial to the design to this study.

Research Questions

Research questions allow a researcher to develop concrete and contextual research plans that will result for a more successful end product (Merriam, 1989). Yin (2018) recommends the use of "how" or "why" questions, which allow a researcher to trace experiences over time, as

opposed to tracking *frequencies* (p. 10). Additionally, these research questions are more exploratory and allow the research to gather more contextual data.

Type of Case Study

In order to explore the perceptions of faculty who have participated in an online learning training, a descriptive and exploratory case study was used for this study. Merriam (1989) characterized descriptive case studies as producing "rich, 'thick' descriptions of the phenomenon under study" (p. 29). Merriam extended this characterization of descriptive case study to include "holistic, lifelike, grounded, and exploratory" [emphasis added] as these case study types "use prose and literary techniques to describe, elicit images, qualitative data from this study needs to show "the passage of time on the issue…include vivid material…[and] obtain information from a wide variety of sources" (Merriam, 1989, p. 31). As a result, descriptive case studies can produce holistic descriptions of the phenomenon allowing for patterns and themes to theoretical constructs to be identified.

Because the purpose of this study is to explore the perceptions of participants (i.e., faculty members) from an experience (i.e., professional development), this study explored different characteristics, qualities, or attributes that are identified during the data analysis stage. This study is framed by descriptive theories of self-efficacy and teacher self-efficacy; from this theoretical foundation, data from interviews, narratives, and artifacts will be collected from participants. Data collection procedures reflected faculty experiences from trainings, but also remain consistent among the participants.

Case Study Analysis

Diverging opinions are present on how to approach such collections and interpretations; for example, Stake (1995) argued that little to no generalizations can be made from case study

research, while Yin (2018) argued statistical and analytical generalizations can be made from case studies. Merriam (1989) emphasized case study research "does not claim any particular method for data collection or data analysis" (p. 28) and instead, emphasized that the context of the study determines the data collection and analysis. In this study, I analyzed faculty perceptions from professional development trainings to explore teacher self-efficacy to "shed light on theoretical concepts or principles" of teacher self-efficacy and faculty development literature (Yin, 2018, p. 38).

Main Research Questions

To guide this research, I first studied how faculty members who completed a professional development workshop describe their perceptions of the workshop. From these training perceptions, I explored how faculty members experienced changes in their skills, self-beliefs, and motivations. To frame the training perceptions, I studied the perceptions from the teacher-self efficacy framework, which includes concepts of skills, self-beliefs, and motivations (Tschannen-Moran et al., 1998). I also explored how faculty members perceive connections between the professional development and their online courses. With these perceptions, I studied how faculty perceive changes in their teacher self-efficacy since the conclusion of the training and in the midst of teaching their own online course. Additionally, I explored perceptions from faculty members at this institution on how they perceive future professional development opportunities. By investigating faculty perceptions of future professional development, I was able to provide more context of the needs of faculty members in online teaching in my findings. The following research questions guide this study:

1. RQ1: How do faculty members who have completed the training describe or narrate changes in their teacher self-efficacy during the training?

2. RQ2: How do faculty members who have completed the training describe changes in their teacher self-efficacy since the conclusion of the training?
3. RQ3: How do faculty who have completed the training envision continued engagement, support, and professional development regarding online teaching?

Site Selection

The site for this study was the Southeastern University (SU), a public, non-profit higher education institution in the southeastern United States, with a Carnegie classification of a Very High Research Institution. This institution offers an optional, free training series to all faculty members on the topic of online pedagogy and educational technology. This training is in conjunction with a national, non-profit organization dedicated to ensuring online course quality and develop quality assurance goals. This site is geographically and practically accessible to the researcher, who holds instructor and staff positions at the research site.

Online Training Description

SU works in conjunction with a national, nonprofit organization to provide quality assurance in online courses. In particular, this non-profit organization offers a seven-part workshop series that allows online faculty members to learn more about online teaching. Topics within the seven-part series include technology skills, course design, exploring institutional policies, developing course communications and presence, pedagogical knowledge, and learner assessment. Faculty members do not have to complete the seven-part series in any particular order. Within each part (or module), faculty-participants will engage in readings, videos, and discussion boards. At the end of each module, participants completed assignments that are examples, which can be referred to later in their professional work. These assignments will be included in the research study as artifacts. The artifacts are general in nature to in order for any

institution type or discipline, so that each participant can modify the artifact to fit their specific needs (i.e., a sample rubric, a sample syllabus). At the end of the workshop, faculty earn a certification in online teaching effectiveness. At the institutional site, the participants are additionally recognized for their participation and are recognized virtually on an institutional website. This website is updated regularly whenever faculty members complete the workshop.

It was important to bind the case to those who complete the certification because workshop participation narrows the scope of subject and site for the case and provides more focus for the phenomenon (Yin, 2018). As outlined in the literature review, results from this study should demonstrate a need to shift to teacher self-efficacy frameworks in formal faculty developments.

Subject Selection

As detailed in a previous section, descriptive case studies should consist of "information from a wide variety of sources" to allow for differing opinions between participant perspectives (Merriam, 1989). Potential participants in this study were recruited from the list of faculty members who have completed the training. To be eligible to participate in the study, the faculty members must have completed the training before the study begins and be teaching an online course in the Fall 2022 semester. As of June 2022, 62 faculty members of various rank and appointment completed the training since its first site offering in Fall 2020. These 62 potential participants represent a variety of disciplines, such as nursing, business, social work, and education. To maximize the number of participants in this study, I used purposeful sampling strategies (Suri, 2011) and recruited from 61 participants who represent eight of the institution's thirteen academic colleges (Table 3.1) and intended to enroll 15-20 participants (see Creswell & Creswell, 2018) in the study. Because only one faculty member from the communications

academic college completed the workshop, there was not recruitment of this individual in order to ensure confidentiality.

Table 3.1

Overview of Eligible Faculty Participants and Respective Academic Colleges

Academic College	Number of Faculty Who Have Completed Training
Arts & Sciences	2
Business	5
Communications	1
Education	13
Engineering	3
Human Sciences	3
Nursing	29
Social Work	6

Because some academic colleges have multiple eligible participants, I used exclusion criteria for recruitment to ensure presentation across the institution:

1. No more than seven faculty members from the nursing academic college,
2. At least four faculty members from the education academic college,
3. At least two faculty members from the social work academic college,
4. At least two faculty members from the business academic college,
5. Some representation among the engineering, arts & sciences, or human sciences academic colleges

Since there was larger response from certain academic colleges over others, I needed to engage in further email solicitation to potential participants from academic colleges that are not as well-represented.

Data Collection Procedures

When planning for data collection, I used the three main research questions as a basis to institute a data collection procedure. This procedure consisted of two, one-hour semi structured

interviews, and an asynchronous writing exercise, for a total of three data collection stages. At each data collection stage, interview and writing exercise questions were created with each respective research question in mind. For a table of associated research and interview questions, refer to Table 3.2.

Table 3.2

Research and Interview Question Association

Research Question	Data Collection Stage	Interview Question
RQ1: How do faculty members who have completed the training describe or narrate changes in their teacher self-efficacy during the training?	First Interview- conducted at the beginning of Fall 2022 semester	1.1, 1.2, 1.3., 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12
RQ2: How do faculty members who have completed the training describe changes in their teacher self-efficacy since the conclusion of the training?	Second Interview- conducted at the beginning of Fall 2022 semester	2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15
RQ3: How do faculty who have completed the training envision continued engagement, support, and professional development regarding online teaching?	Writing Exercise- faculty narrative collected at the end of Fall 2022	3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7

These interactions occurred via telecommunication, as online instructors are often remote workers. In the first interview, I used a semi-structured approach (see Roulston, 2010) to interview each participant to explore their perceptions of changes in their teacher self-efficacy during the training (See Appendix for protocol). This interview took place after the participant has completed the training and at the beginning of the fall academic semester. The semi-structured interview protocol posed questions regarding faculty perceptions of their learned skills, motivation, and self-belief during the training, as compared to their previous online

teaching experiences. By engaging in this line of questioning and conversation with the participant, I built the thick descriptive details of the perceptions of faculty in the training and explored how their teacher self-efficacy might have changed throughout the training.

I then conducted a second, one-hour semi-structured interview focused on participation in the online training and the participants' perceptions of their learned skills, motivation, and self-belief from the training within contextual environments of participant's online courses (see Appendix for protocol). These interviews took place after the first interview and in the middle of the fall academic semester. Participants were asked questions regarding their perceptions of learned skills, motivation, and self-belief since the last interview and in the context of the online courses they are teaching in the fall semester. Similar to the first interview, an attempt was made to establish the "passage of time" with this interview protocol; however, this passage of time is intended to document perception of changes in teacher self-efficacy (Merriam, 1989). In exploring the perception of changes, I continued to develop analytical themes and patterns surrounding teacher self-efficacy and faculty development.

Third, I collected faculty narratives via a writing exercise (see Appendix) housed in Qualtrics and emailed to participants. This writing exercise was distributed to participants after the second interview and at the end of the fall semester. During this writing exercise, participants were prompted to share their perceptions of changes in their teacher self-efficacy over the course of the Fall 2022 and in relation to their training. Additionally, participants were asked about their perceptions on remaining online teaching skills or pedagogical gaps, as well as any future professional development opportunities they are seeking. These written narratives provided specific details on the training experiences in relation to their online courses, and how faculty members at this site envision future professional development opportunities. I presented the

writing exercise via email to all participants and gave them ten business days to respond, giving them time to reflect on their experiences and perceptions.

As this is a descriptive case study, it is important to ensure that data collection procedures remain consistent among all participants. Qualitative studies, specifically case studies, need "robust data collection techniques" (Bowen, 2009, p. 29). When considering the context of asynchronous online courses, options for data collection differ from face-to-face courses, as there are not opportunities to observe courses in person (Glackin & Hohenstein, 2018). Therefore, it was necessary to incorporate multiple interactions with participants to increase the volume of data collected. The use of interviews and written reflections in research "can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem" (Merriam, 1989, p. 118). The varied use of data collection in this specific research generates "context within which research participants operate in- a case of text providing context" (Bowen, 2009, p. 29). With this contextual information, I was able to draw themes and patterns to respond to the study's research questions.

Data Analysis Techniques

Recorded interviews were transcribed to ensure accurate representation of participant perceptions (Krefting, 1991). I completed the transcriptions using such software as Otter.ai and store transcriptions in the university-encrypted Box (cloud storage). Written narratives from the asynchronous writing exercise were stored in the university-encrypted Box. Data was analyzed using thematic analysis, which is the identification of patterns in data, where themes become categories for analysis (Fereday & Muir-Cochrane, 2006). I first analyzed the data deductively, using researcher-generated codes from Tschannen-Moran et. al.'s (1998) model, including self-perceptions of skills, beliefs, and motivations (Crabtree & Miller, 1992; Tschannen-Moran et. al,

1998). These researcher-generated codes also included codes from Bandura's four sources of efficacy that also heavily inform the model of teacher self-efficacy.

In order to most thoroughly answer the proposed research questions, I coded the interview transcripts and written narratives within each data collection stage. Within each data stage, I engaged in three rounds of coding (Charmaz, 2014; Yin 2018). In the first phase of coding, I read through each transcript and written narrative line-by-line using the researcher-generated codes. I will identify keywords or phrases in this line-by-line coding that relate to researcher-generated codes of teacher self-efficacy. After reading through one transcript, I will make a list of keywords and phrases identified in the transcript; this process will be repeated for each participant's interview in the first phase of coding. While the researcher-generated codes of teacher self-efficacy will remain a priority to satisfy the purpose of this study, I also conducted one round of open coding, to ensure that all aspects of faculty training perspectives are being represented. After all interviews and written narratives have been analyzed line-by-line, I organized all keywords and phrases in categories among the researcher-generated codes and open codes in order to begin a stage of more focused coding (Charmaz, 2014). After this first round of coding, an average interview yielded 49 initial codes, for a total of 1016 initial codes in each data collection stage for the first round of coding. An example of first-cycle coding can be seen in Table 3.3 below.

Table 3.3

Example of First Cycle Coding

Participant	1st Cycle Coding	Data Collection Stage, Question Number	Quote
Two	Course sections Discussion boards Balance 125 Students Feedback	Stage 2, Question 7	I knew that it has to be like a balance of what I can grade, realistically, and what the students can do.

The second, more focused stage of coding stemmed from the organization of keywords and phrases at the end of the first phase of coding. From this organization, I returned to the transcriptions and written narratives to narrow down keywords and phrases to transition to themes and patterns. With the development of themes and patterns, I became more succinct and precise in my analysis. By becoming more succinct and precise in my themes and patterns, I was to provide analytical generalization on the theoretical development of teacher self-efficacy, which will occur in the third phase of coding (Charmaz, 2014; Yin 2018). Table 3.4 shows an example of this second cycle coding.

Table 3.4

Example of Second Cycle Coding

Participant	1st Cycle Coding	Data Collection Stage, Question Number	Quote	2nd Cycle Coding
Nine	Discussion board Flipgrid Technology Detailed feedback	Stage 2, Question 6	I love Flipgrid…. And I think that we'll get that that's, that's a form of presence, too.	Instructor Presence

The final stage of coding advanced themes and patterns from the second stage of coding to further theoretical developments of teacher self-efficacy (Yin, 2018). While specific faculty perceptions cannot provide generalizations, theme and patterns from my analysis can advance theoretical development. It is important to advance the development of teacher self-efficacy in faculty development, as it will allow more faculty members to engage with self-perceptions of skills, beliefs, and motivations, and thus overcome concerns related to online teaching. Chapter 5 will further detail theoretical developments of this study. Table 3.5 shows an example of third round coding.

Table 3.5

Example of Third Cycle Coding

Participant	1st Cycle Coding	Data Collection Stage, Question Number	Quote	2nd Cycle Coding	3rd Cycle Coding
Fifteen	Course design Trial and error Instructional design partner	Stage 1, Question 5	I don't have a background in education. Everything that I've…I've just tried to figure it out along the way. But I have [an instructional design colleague]. So, she was like, "oh, yeah, we spend a lot of time with this". And so, I would ask her things…about learning theory.	Dual Career	Teacher self-efficacy as a flashpoint

Within the various phases of coding, I used within-case and cross-case analysis. These analysis techniques allowed me to understand each participant's perceptions holistically, while also finding patterns between participant's perceptions (Stake, 1995; Ayers et. al., 2003). Additionally, the structure of the research questions aided in the analysis; the first two research questions aided in the analysis of participant perceptions, while the third research questions also analyzed for the contextual environment of the institution for which the participants are located. These forms of analysis were appropriate for this study, as the teacher self-efficacy model is the

framework informing these experiences. The analysis procedure needed to be iterative amongst all cases within the study as well. By conducting an iterative process, comparison between cases can occur and themes will be able to be identified in the discussion and conclusions.

Ethical Considerations

There were ethical considerations within this study related to bias of interpretation of results. First, I am a staff member within the office that facilitates the training workshop at this site where the study will occur. Second, I have completed the same workshop as participants will have completed, and I am an instructor on campus. To mitigate concerns and reduce bias, I was reflexive throughout the study. According to Wanda Pillow (2003), reflexivity should "challenge the constructs of the author…pushing [them] to analyze…[the] requestion of her/his own knowledges and assumptions" in relation to the study (p. 189). My professional identity is heavily informed by aspects of pedagogy and course design, and I was mindful to not evaluate or judge the competency of the instructors in an online teaching capacity. I also wrote a memo after each interview to reflect on the interaction with the participant, and any knowledge and assumptions I have surrounding that interaction. Additionally, individuals I professionally worked with will not be recruited to participate in this study. It is through the acknowledgement and strategies of reflexivity that this study will achieve a sense of confirmability, what Krefting (1991) suggests allows the researcher to show the natural progression of how events unfolded in a study.

Trustworthiness

Because this study uses within-case analysis and multiple methods of data collection, I provided thick descriptions of data, that are important for accurately representing the perceptions and experiences of faculty members (Merriam, 1989). However, this method should also "assign

purpose and intentionality to these actions" so that the reader is able to "cognitively and emotively 'place' themselves within the research context" (Ponterrotto, 2006, p. 543) allowing readers to connect with the research and participants more clearly. Additionally, with more than one participant interaction used in data collection, triangulation of data sources is possible, increasing the depth of inquiry and study credibility and rigor (Krefting, 1991).

Another opportunity for building trustworthiness in this study is through member checking. This technique consists of "revealing research materials" to participants to ensure that participant perceptions are accurately depicted in the data (Krefting, 1991, p. 219). As the purpose of this study is to explore perceptions, it is important that the participants are able to recognize their experiences within the data and the resulting analysis. I implemented member checking strategies by sharing drafts of analytical coding with participants, near the conclusion of the study, to ensure that my analysis reflects their perceptions and experiences. As a result, the credibility and rigor of the study increased.

Summary of Methodology

In this chapter, I outlined the methodology and research design used for this case study dissertation. For the purposes of this study, a qualitative case study was necessary to explore faculty perceptions of professional development and their teacher self-efficacy. I summarized how the site and subject selections make this particular study a bounded case study. I detailed how the research questions for the study related to data collection procedures and form a basis for the interview questions in the three data collection stages. Finally, I reviewed the ethical considerations of my professional position, as well as the steps taken to ensure trustworthiness in this study.

CHAPTER 4

FINDINGS

Overview

In this chapter, I will discuss the findings from the interviews and writing activity gathered in my data collection stages. I will provide a short overview of the data collection in the first section of this chapter, as well as details pertaining to the participants in the study. The remaining sections of this chapter will cover themes and subthemes that I observed during the data analysis and coding of this study.

Data Collection Summary

Participant Recruitment and Demographics

As outlined in Chapter 3, a recruitment email was sent to 62 eligible faculty members in August 2022. This email contained details of the study, the recruitment flyer, my contact information, and a link to the virtual consent form via Qualtrics (as approved by the institution's IRB). After this initial email, nine participants completed the virtual consent form. Using snowball sampling and professional networking, I was able to recruit seven more participants, totaling 16 participants who completed the consent form. Of the 16 participants who completed the consent form, two participants represented the academic college of Arts & Sciences, three participants represented the college of Social Work, five participants represented the college of Education, and six represented the college of Nursing.

Data Collection Summary

For the first interview stage, I scheduled one-hour Zoom interviews with all sixteen participants. Within this interview, I asked questions related to how faculty perceive changes in their teacher self-efficacy since the conclusion of the training and in the midst of teaching their own online course. The interview questions in the first interview stemmed from the first research question of this study. In the scheduling of this first interview, Participant Sixteen withdrew from the study due to timing.

For the second interview, I scheduled a second, one-hour Zoom interview with each individual participant. These interviews were scheduled in the middle of the Fall 2022 semester. This second interview focused on faculty perceptions of any teacher self-efficacy changes in the midst of their online courses, any possible environmental contributions to changes in teacher self-efficacy, as well as continued reference to the original training. In the scheduling of this second interview, Participant Seven withdrew from the study.

The third data collection of this study was a writing activity that was administered at the end of the Fall 2022 semester. Distributed via Qualtrics, the writing activity consisted of seven questions and asked participants to reflect on their teaching experience in the Fall 2022 semesters, what changes they would like to make to their teaching practice, and what professional development needs they are still seeking. The overall participant demographics and completion of participants in the data collection is outlined in Table 4.1

Table 4.1

Participant Demographics and Data Collection Participation

Participant Number	Academic College	Consent Form Complete	Data Collection Stage One	Data Collection Stage Two	Data Collection Stage Three
One	Education	Yes	Complete	Complete	Complete
Two	Arts & Sciences	Yes	Complete	Complete	Complete
Three	Arts & Sciences	Yes	Complete	Complete	Complete
Four	Nursing	Yes	Complete	Complete	Complete
Five	Social Work	Yes	Complete	Complete	Complete
Six	Education	Yes	Complete	Complete	Complete
Seven	Nursing	Yes	Complete	Withdrew	Withdrew
Eight	Education	Yes	Complete	Complete	Complete
Nine	Education	Yes	Complete	Complete	Complete
Ten	Nursing	Yes	Complete	Complete	Complete
Eleven	Education	Yes	Complete	Complete	Complete
Twelve	Nursing	Yes	Complete	Complete	Complete
Thirteen	Nursing	Yes	Complete	Complete	Complete
Fourteen	Social Work	Yes	Complete	Complete	Complete
Fifteen	Nursing	Yes	Complete	Complete	Complete
Sixteen	Social Work	Yes	Withdrew	Withdrew	Withdrew

In considering the proposed eligibility criteria in Chapter 3, the fourteen participants who completed all three stages of the data collection closely match the proposed criteria. For example, while the colleges of nursing and education are represented in the original eligibility criteria and this study, the colleges of Arts & Sciences and Social Work are also represented in the final participant population. Table 4.2 offers a comparison of the original eligibility criteria and the number of faculty in the study.

Table 4.2

Final Participant Demographics versus Eligible Faculty Participants

Academic College	Number of Faculty Who Have Completed Training	Number of Faculty Intended	Number of Faculty in Study
Arts & Sciences	2		2
Business	5	2	0
Communications	1		0
Education	13	4	5
Engineering	3		0
Human Sciences	3		0
Nursing	29	7	5
Social Work	6	2	2

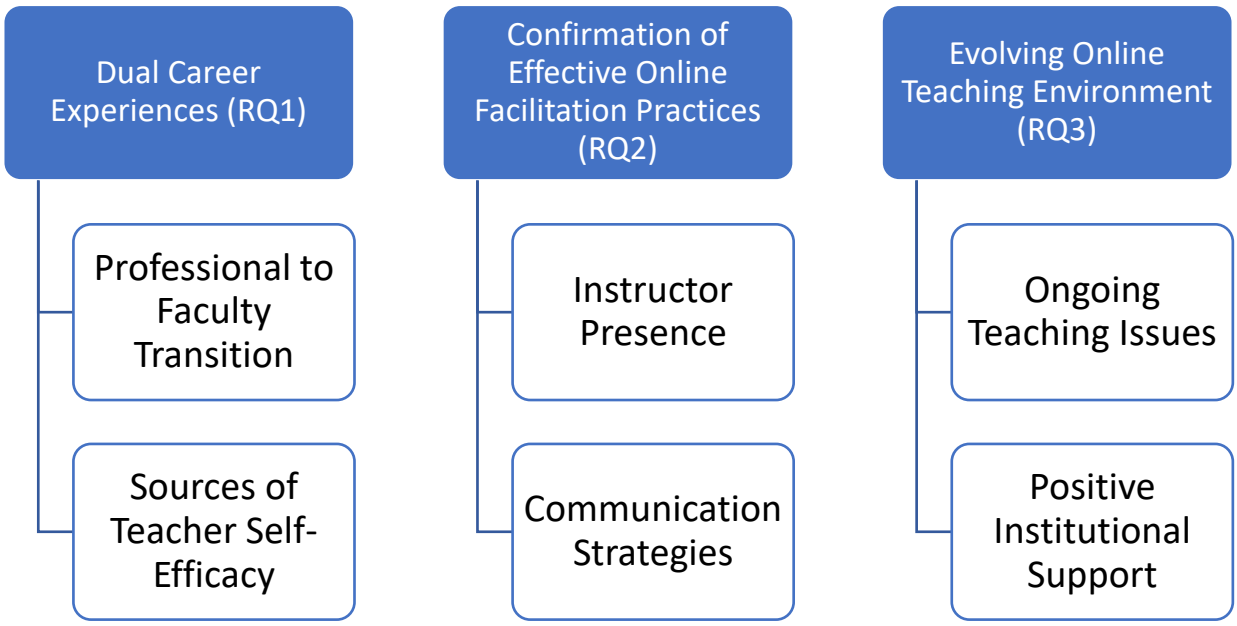
At the end of the data collection stages, fourteen participants completed all elements of the study. The remaining sections of this chapter will detail the outcomes of the data collection and findings of this study.

Themes

After the three data collection stages, each interview transcript and written narrative were coded using various rounds of coding to understand themes and patterns. Within the rounds of coding, I identified three major themes: prior professional experiences, instructor presence and communication, and the evolving online environment. Within each of these major themes, I also identified twenty subthemes. In this chapter I will present interview excerpts that follow the theme and subtheme headings to support my selection. Figure 4.1 illustrates the major themes and subthemes, as well as the structure for the remaining sections of this chapter.

Figure 4.1

Chart of Themes and Subthemes



Dual Career Experiences

Represented among the growing number of non-tenure track and part time faculty are dual career faculty members (Austin & Sorcinelli, 2013). These faculty members who have previously worked in professional fields bring valuable experiences, skills, and knowledge to the classroom. Dual career faculty members often bypass the traditional academic track and will enter academia mid-career, either by earning their terminal degrees, joining the workforce, and returning to academia or join the workforce, earn their terminal degrees and then enter academia much later in life (Finklestein et al., 2016). With these different career tracks, faculty of this nature face several challenges in their transition to academia, such as adapting to teaching responsibilities. This section will address the study's first research question, "How do faculty

members who have completed the training describe or narrate changes in their teacher self-efficacy during the training?". In my findings, I found that faculty members primarily narrated their changes in teacher self-efficacy in relation to their past career experience. I identified three subthemes under the larger theme of dual career experiences: professional to faculty transition, resources for transition-related challenges, and reflecting on changes.

Professional to Faculty Transition

I opened each interview asking participants to tell me more about themselves and their beginnings with online teaching. Most participants interpreted this broad question to also include their entire career journey. For example, Participant One had previously worked in human resources, Participant Two earned their Master of Fine Art in printmaking, Participant Nine was a Latin teacher in K-12, and Participant Three once was a private investigator. In total, twelve out of the fourteen participants shared details of a previous career that differed from their current faculty positions. As more participants began sharing their career journeys, it became evident that the development of teacher self-efficacy in online teaching was linked to the context of their professional experiences and subsequent transition into academia.

Reason for Transition

Among the participants, faculty members were drawn to online teaching and academia for various reasons, such as personal or professional. When asked to talk more about themselves, Participant Six's response was representative of both personal and professional reasons for career changes. In their interview, Participant Six shared that their professional journey began in journalism, then social media. Their career trajectory also included family considerations, as they also wanted flexibility to raise their family. After finding their new profession (instructional design), they sought a terminal degree. They shared their journey as:

> I did TV news for about six years. And then I took some time off to raise my family and went back and did some social media and web content development for [a college]. And it was great, really fun, but wasn't really paying the bills very well. So, I started thinking about what can I do to enhance my skills and further my career. And at the time, instructional design was still relatively new. This was back in 2013 when I first started investigating, and so I applied to [a degree program's] interactive technology.

Personal Reasons for Transitions

Some participants articulated personal reasons for the career transition, such as a move, the birth of a child, or family time. Participant Four was an example of a faculty member who found personal benefits related to this career transition after a family move, and the ability to navigate different nursing policies. They shared:

> I'm married to a [military spouse] and we lived in California and Louisiana and California and Texas. And then we lived in Maryland. And so, for 16 years, I was the inpatient GYN nurse practitioner for [various hospitals]. In 2017, he took a job in [redacted state]. And if you know anything about clinical practice in the state of [redacted state], it's significantly more restrictive for nurse practitioners…And so I knew that I really probably didn't want to practice solely clinically [in redacted state]. And also, you know, I was getting older, and I kind of thought that my clinical life can be rough. And I had entertained the idea of teaching anyway.

When considering children and family structures, some participants perceived teaching as offering more flexibility than other careers. Participant Eight originally worked in a university setting as a staff member. After the birth of their first child, they transitioned to K-12 education and special education because "I thought that a teacher schedule would be better for [my child]

because he was like almost a year old". However, Participant Eight rejoined the university setting as the teaching schedule in K-12 did not prove as flexible. Similarly, Participant Twelve also had their children in mind when searching for new positions outside of nursing. Looking for more flexibility with children, they began part-time clinical work "for the university [while] my children were young". Once their children were in second grade, Participant Twelve shared that "I started looking around thinking 'Ooh, somebody may think I'm gonna cook and clean this house, and I'm not gonna do that'. So, I just worked full time."

Professional Reasons for Transitions

Another reason faculty members found themselves drawn to academia and online teaching was for professional-related reasons. Throughout the interviews, participants related that they felt a stall in their past careers or were motivated to earn a terminal degree. Participant Ten was one such participant who felt motivated for new challenges in teaching and nursing. While the decision to move to teaching from nursing was "personal" for Participant Ten, the transition to online teaching was opportunity to do "something different…I had been there and in that role for 10 years, and…I enjoyed teaching very much. And so, I wanted to do that in a different way". Participant Eleven felt very similar to Participant Ten; after teaching high school for ten years, they "decided to kind of move to a different phase". This phase still "needed to get a job". Therefore, Participant Eleven pursued a terminal degree in education and remained in academia teaching after a colleague shoulder tapped them to stay after their graduation.

This sub-theme of pursuing a terminal degree and remaining in academia unintended presented in other participant narratives. For Participant Thirteen, the transition to academia came after the decision to pursue graduate school for higher accreditation in their original

nursing profession. While enrolled in graduate school, they were given the opportunity to teach. They recalled:

> [I] came back for graduate school, and I was a graduate assistant, and liked the environment of the College of Nursing…And then someone from the college contacted me and said, "Would you be interested in teaching", so I…did a clinical group, which is something commonly done in nursing, where you take, you just take students to the clinical setting. And I just fell in love with teaching!

While Participant Thirteen chose to attend graduate school, Participant Fifteen was told to attend graduate school by their hospital management. While Participant Fifteen was originally "mad [and] highly offended" by this directive, once they enrolled in their master's program, they "had already gotten the bug" for nurse education. They shared:

> I worked for 10 years as a frontline staff member, and charge nurse…By 2010, I'm a Director of Nursing, I've got multiple units. And I have top performing units. And I have a new VP of patient care services. And she sits down, she actually has a one-on-one meeting with me, and says that she has a vision for the organization that she wants to move in a certain direction… [and all her] directors will have a master's degree.

This "bug" for nurse education would eventually lead them to not only complete a master's degree, but also a doctorate degree as well.

Challenges During Transition

Intertwined with the participants' narrations of their career-to-academia transitions, participants would also share challenges they initially encountered when they began teaching. These challenges were widespread amongst the participants, ranging from learning course design and course technology, building online community, and pressure to perform well.

Learning Course Design and Course Technology

Most participants related an experience early in their faculty teaching where they undertook a class topic they had never experienced. Therefore, one of the earliest challenges was course design or redesign. For example, Participant Six related being "placed as a faculty member in a course that [they had] never taught". Participant Four was also placed in a course that they had never taught before; however, there were additional elements of larger sections and more responsibilities. They detailed that experience as:

> I would say that this [was] my biggest stretch class. As far as any class I've taught. However, I was the course leader. And I was teaching two sections. And I had another faculty member teaching with me who's never taught in [this program]. So, I've really had to step up and demonstrate.

Participant Fifteen not only had to undertake a course redesign, but an entire redesign of a program for their college. They recalled these experiences as:

> When I first came here, I was handed…I was given an "expert curriculum" by the school of nursing. Somebody contracted with an outside source to develop the initial, the foundational courses for this program. And she [the outside source] was not here, she's not in the state. Long story short, she was being paid in advance, and did not deliver anything. So, when I got here, they hand me an outline for something and said, "We need you to develop this program". I had zero experiences! I don't have a background in education.

In some instances, if the participants had familiarity with the topic, there were some challenges with the technical aspects of online teaching. When they first started online teaching, Participant Eleven considered themselves to be "not terribly technologically savvy" and had to

"quickly learn [what was] really important" for online learning. For some specific disciplines, like nursing, there is the technology of nursing to also keep up with. For Participant Ten, they were initially overwhelmed with the amount of technology for online nursing education. They remembered:

> We're using simulated programs [to] teach students how to perform certain aspects of physicals [such as] questioning patience and learning how to speak with a patient a learning the terminology, even though they're nurses, the terminology's a bit different. And learning the role of a nurse practitioner, what you know the simulating courses, those work along those lines. So constantly learning that system or another system, or systems that you're familiar with in Blackboard that we all use. So, it is learning all those individual systems that went along with the course. So that was that that was probably the, you know…that took up a great deal of your time and keeping yourself fresh on all the different types of programs that you're using from and then you're adding new ones all the time.

Creating an Online Community

Another challenge many participants articulated early in their teaching careers was the struggle to connect with students in an online environment. This was particularly a struggle for the faculty members who were previously nurses and had primarily served populations face-to-face. Participant Eleven shared that their relational abilities that made them successful as a nurse had to pivot in an online setting quickly. They recalled:

> I had been a nurse for many years at that time, had also taught some in the classroom, face to face, and some, certainly a lot of clinical teaching. So, I think one, I just personally am a real relational person…that's something that I really enjoy. I love the

interaction. I also think that sometimes not having the face-to-face contact because so much of our teaching is a synchronous that you [had to learn] to really be very relational in your instructions in your directions.

Participant Fifteen echoed Participant Eleven's sentiments. Participant Fifteen had many years of experience as a nurse and had to learn how to adjust their "physical presentation". They remembered:

> I am a people person. Yeah, like a true extrovert. True, to me, relationships are easier to develop and maintain. When you see people interact with people. Yeah, it's about the relationships, mmhm, body language, the physical environment. Physical presentation, when I'm saying physical, I'm talking about physical presentation adds so much to the delivery of a message that…if we did not have zoom, and you could not see me add body language. And we can actually have audio visual communication enhances dialogue.

Pressure to Succeed

As participants embarked on these new experiences and challenges of teaching at a university level, some participants related experiences of pressure and nerves in those early teaching experiences. For example, Participant Thirteen recalled their first teaching experience "very nerve racking…as they don't teach you how to be a teacher in nursing graduate school". Participant Eight recalled being worried about student opinions of instruction (SOIs) and the eventual measurement of their success. They detailed:

> I was so concerned with SOIs because that was the only marker that I had ever really come in contact with or knew that I was being measured [as] I had taken no professional development at that point to help me be an online instructor. And so, knowing that that is what the College of Education used to evaluate me, I… just lived and died by those SOIs.

Sources of Teacher Self-Efficacy

As the participants were going through their respective transitions and challenges with online teaching, participants looked for sources (or resources) to assist in overcoming their respective challenges. In an extension of their narratives of teacher self-efficacy, these participants shared their experiences with these sources of teacher self-efficacy.

Online Training

All participants in this study have participated in a seven-part workshop series that allows online faculty members to learn more about online teaching. This workshop series is hosted by the site of the study, in conjunction with a national, nonprofit organization to provide quality assurance in online courses. Upon reviewing participant narratives, it was observed that a significant number of participants referenced the online training program, in both positive and neutral/ negative perceptions on their teacher self-efficacy development.

Positive Perceptions. In reviewing transcripts, five participants shared positive perceptions of the online training on their teacher self-efficacy. After participating in the online training, Participant One came to think very highly of the training, even calling it the "Bible" of teaching online. After taking the online training, Participant One felt that this training gave them a "blueprint to just be successful in building an online course". This positive perception on their teaching development "took so much pressure and guesswork" out of teaching and made them more comfortable in the online classroom.

Participant Five had the ability to take the online training while simultaneously redesigning a course for their program. They found this simultaneous experience very beneficial as it allowed them to catch errors in the redesign process, as well as think of new content. They described that experienced as:

> I was tasked to develop the technology orientation to [the learning management system (LMS)] for all of our three online programs. And it just so happened that I was doing the workshop at the same time, but I had started that after I started the course [redesign]. And so, when I did the workshop, I thought, "Oh, I'm doing I'm doing this the wrong way". And so, it helped me think more about what content needed to be in that course.

Some participants appreciated the approach of research and theory presented in the online training. Participant Six noted that she was given initial some initial teaching advice that included "smile, being engaging, be enthusiastic, you know, give your students good feedback, be specific". After participating in the online training, it was then that Participant Six realized that teacher education "goes much further…to include rubrics…[and] structuring your course".

Participants Thirteen and Fifteen appreciated the incorporation of andragogical theories, or adult learning theories, and how that changed their perspective of working with adult online learners. Participant Thirteen felt that learning the background of students helped them structure the content of modules better, whereas "before I didn't really think about that, I just thought about the module and what I wanted in the module and the course content". For Participant Fifteen, the inclusion of adult learning theories "made a lot of sense to [them]". Therefore, to improve their courses, they began to implement some of the suggestions.

Participant Ten nicely summarized the positive perceptions of the online training on teacher self-efficacy among participants.

> My confidence is much greater. I felt like it was valuable. And then when I took the course and saw this is something you should do. You know, this is really something that we should implement in courses…I'm very proud of that I finished it and is very valuable.

Neutral and Negative Perceptions. Similarly, five participants shared neutral or negative perceptions of the online training on their teacher self-efficacy. Participant Four was more neutral in their response when asked on their perceptions on the online training. They shared that the online training "opened up [their] lens as to how to do it and look at it from a different viewpoint". However, overall, they did not feel that the training shifted their "foundational knowledge to do the things I was already doing".

Participant Two began their response in a similar neutral perception, then shifted their response to a more negative perception. When asked about their perceptions on the training, they shared that the training was "place for me to get feedback about something I was already doing". However, when later asked about self-doubts related to online teaching, Participant Two responded with more negative perceptions of the training, and concepts that the training did not cover. Specifically, Participant Two has large sections at the undergraduate level and this participant feels that the training did not address teaching nuances that they remain worried about in their teaching practice. They discuss these nuances as:

> I think that's like where I find [the training] falls down a little bit. Like if I only had 20 students, I would do all the stuff in [the training], like it would be no, no big deal. But I have 280. And even bigger to that discussion is like, I have to work at three universities to make a living. I have 440 students overall, right now. You know, like, I do the absolute best I can. I'm really good at time management. Like, if I can toot my own horn like, I'm really good. Yeah, I can't do all the things all the time. And I can't, I can't reach out to every single one [of my students]. And, you know, and I do know that, like, they're mostly 18–19-year-olds, and they're just learning how to college. And maybe their brain isn't fully formed yet. And I tried to be as, like accommodating as I can be.

Participant Three, who also teaches large, undergraduate sections online like Participant Two, shared similar negative perceptions of the online training and no nuances for online teaching. Participant Three shared that they attempted to implement strategies from the online training, such as making a personalized introductory video. However, due to the large nature of the class, no students interacted with the video, and they felt that their time recording and editing the video was wasted.

Participant Nine and Eleven, who both have prior education careers, had the strongest negative perceptions of the online training during the interviews. Participant Nine was frustrated to see little to no training or education on student welfare. They detailed their training experiences as:

> I thought [the training] was pretty terrible. And, and I think that it's not great. If you can get faculty to talk to students, it humanizes online learning in a way that I feel like… I feel like part of the problem is they see online learning as being this like dehumanizing detached thing. And it's like, in fact, this is actually a way like, if you're so concerned about students and students, while being in welfare, like, this is a way to support a lot of them.

Participant Eleven simply felt that the training had no impact on their teaching practice. They detailed:

> I don’t have a whole lot of good things to say about [the training]. And regardless of my personal opinion about that company, this is probably the, to me the biggest, not indictment, but the biggest criticism is the fact that I can't think of anything, I can't think of a single thing that I've learned from the professional development seminar, that I've ever used in my classes.

Junior Faculty. One subtheme within the neutral/negative perceptions of the online training was the belief that this particular training would be more beneficial for new or junior faculty members. Participant Ten shared that they believed the training should be "mandatory for anyone coming in to teach". Participant Fifteen agreed, saying that new faculty in their discipline come in without knowing how to "work the [LMS], edit a rubric, or which assessments to provide". Participant Five reiterated Participants Ten and Fifteen and shared an experience where they have had to mentor a junior faculty member when the junior faculty members' online course design did not work. They shared:

> I think about one faculty in particular. I had to approve [their] class, and it was being offered for the first time and I looked at it, and I was like, "No, there's way too much content in here. Like that is not going to work". And it was just like really butting heads, because the faculty member said, "I have expertise in this area" …. And what I got was "We need to agree to disagree". And what happened was the class really went terribly. And, and at the end, you know, the faculty member came back and saying, "This didn't work, I should have listened". And then we had to go revise the whole class.

It is because of this perceived sense of online teaching inexperience among junior faculty that many study participants believed that the online training did not offer any changes to their teacher self-efficacy. As summarized by Participant Eleven, "I don't need anymore Online Teaching 101."

Instructional Design Partnerships

In addition to the online training provided by the site of study, the participants also detailed other resources that guided the development of their teacher self-efficacy. One set of responses that stood out was the campus partnership between faculty members and instructional

designers to develop and create online courses. This campus partnership is unique to this institution, as this institution employs a large team of instructional designers that may not be consistent among other institutions. Participant Four's response encapsulated other participant's responses by saying how easy it was to just "reach out" to instructional designers who can advise on any issues that they may encounter as a course progresses. This ease of access and relationship between faculty and instructional designers was apparent in many responses.

Participant Thirteen and Fifteen noted how working with instructional designers aided in their teacher self-efficacy around course development. Participant Thirteen noted how instructional designers gave a personal touch to their course and made it look "what I would want to say and do" in a face-to-face course. Participant Fifteen, who was given an entire program redesign early in their faculty teaching career, relied on instructional designers heavily. With no formal education training, Participant Fifteen attempted the redesign on their own; however, after collaborating with instructional designers, the courses improved. They recalled that process as:

> I don't have a background in education. Everything that I've…I've just tried to figure it out along the way. But I have [an instructional design colleague]. So, she was like, "oh, yeah, we spend a lot of time with this". And so, I would ask her things…about learning theory.

Now, Participant Fifteen feels that their program and courses are more successful and reaching and connecting with adult learners.

Participant Twelve had the most positive perception of the partnership with instructional designers and their teacher self-efficacy. The detailed that:

> I will be honest, the partnership with the [instructional designers] has always been one that has been extremely valuable to everybody…I have felt like was very valuable. Always just listened to what [they have] has said, if they said, you need to, we need to do voice... For example, when I first started, we would have PowerPoints. And I would do voice overs to those PowerPoints. Well, as the years have gone, and sometimes those PowerPoints [are out of date] … Now I do an overview of each module, you know, a dig down deep into the thing. Just try to make this module more interactive, but a lot less sage on the stage. So, yeah, very good use of that partnership. I like that, yeah.

Trial and Error

Besides tangible resources provided by the institution (i.e., training or instructional design partnerships), many participants also felt that part of the development of their teacher self-efficacy formed from trial and error and spending years teaching. Participant Thirteen shared simply that "with age, I'm more confident in the classroom settings," and attributed the development of confidence to continued practice of teaching, semester after semester. They also shared that as students get younger and they age, they feel less intimated by students. Participant Eleven shared similar sentiments as Participant Thirteen, in that teacher self-efficacy built over their many years of teaching (in K-12 and higher education). They shared that:

> So, there wasn't like this big shocking moment where all of a sudden, I've got to learn how to be an online teacher- it's something that I think for a lot of us, it's just gradually happened over the last 10 years or so. And it's…there's no you know, it's just…it's teaching online, and creating experiences online is just part of being a teacher now. It's, you know, it's not like something you got to figure out how to do. It's just part of your,

> it's part of your education, as a teacher from whenever you started thinking about it, whether it was college or as a graduate student, or working on a PhD.

For Participant Fifteen, there were more distinct moments of trial and error in their teaching career. As a result, these moments had a profound impact on their teacher self-efficacy. Participant Fifteen had to redesign and launch a program redesign early in their faculty career; therefore, they had to quickly adapt with no educational background to meet the requirements of their new position. This required:

> I took [a look] at the Blackboard template that we use in the undergraduate program, because that was my only experience with education. So, I took a look at that when I wrote these courses, and I looked at the courses I was teaching in the [face-to-face] undergrad. And we launched this as an online program. And I set it up. I didn't know any better at the time. I still received good [SOIs] scores. But I felt disconnected.

While Participants Six and Nine did not share specific moments of trial and error in their teaching careers, these two participants did comment on the importance of sweat equity and intentionality in teaching. To these participants, they perceived trial and error and putting intense work into teaching as a critical step in engaging with one's own self-development, as well as maintaining course rigor and content. In reference to confidence building, Participant Six shared that they felt most confident when:

> It was that time and effort and sweat equity, of thinking critically about the course thinking critically about the audience, that I was delivering it to the students, what they needed to know what was enough, what was too much, and then delivering it in creative ways. So that they remained engaged.

When asked about any instances of self-doubt related to teaching, Participant Nine shared that their many years of teaching (K-12 and higher education) left them with few self-doubts. Specifically, they stated:

> I mean, I've been an educator for over 20 years now. And I've made a lot of ridiculous things work. And, and so I feel pretty able to make things work, I will say, I don't know, this is self-doubt, per se. But one thing I'm very aware of is that I need to have the time and opportunity and the intentionality if it's going to be online, to make sure that it's being designed to be online, right. Like, it's not just like an in-person class, and I'm trying to jam into an online platform. Because that doesn't work. And that's not self-doubt, per se, but it is a recognition that like, that takes time. That takes effort that takes planning.

Faculty Collaboration

A final subtheme worth highlighting in this section is the aspect of faculty collaboration and its perceived impact on teacher self-efficacy. Within faculty narratives, three participants shared that working with other faculty members greatly increased their teaching practices. For example, Participant Six shared that "it's important to connect with colleagues, whether it's during the [online training], or your colleagues at your institution or at other institutions to keep up with you know, what are they trying? What are they doing what's new?" For Participant Four, who was tasked with teaching a course they were unfamiliar with, they collaborated with a faculty member to ensure their knowledge on the subject matter, as well as offering feedback on the course design. They recalled that experiences as:

> I said "Okay, walk me through this." [And] I told him, "You got to put some more explanation here." He made videos, multiple videos for every assignment. Because I had

> that collaboration with him early on…But because of that now, I'm pretty well versed in the course, and the kinks have pretty much been eliminated.

Participant Ten summarized the impact of having good mentors throughout their academic career and how it enables them to ask questions as they were starting out.

> I think I had good mentors, when I came or a good mentor, the program that I'm I was I'm presently the [program] had the was very small it was just getting started. There were just a few faculty at that time. And so, it was, you know, it wasn't difficult to you know, if I had a question to find someone who could assist me.

Reflecting on Transition & Changes in Teacher Self-Efficacy

The narratives of participants in the first set of interviews, which sought to elicit faculty members' experiences in online teaching and their perceptions of the impact of online training on their teaching development, revealed a diverse range of resources beyond the online training. While some participants did perceive the online training as impactful to their overall teacher self-efficacy, more participants shared more emphatic responses that indicated negative perceptions of the training on their teacher self-efficacy. Additionally, more participants indicated other resources such as the instructional design partnership, trial and error, and faculty collaboration that were more important in their development.

Confirmation of Effective Online Facilitation Practices

In reviewing participant responses from the first set of interviews, participants were mixed in their perceptions of the online training and the training's impact on their teaching self-efficacy. While the online training may not have been participant's preferred resource of developing teacher self-efficacy, the online training did play a positive role in affirming positive teaching behaviors after faculty members completed the training. Specifically, faculty members

found confirmation among their instructor presence and communication practices. As a result, faculty members in this student felt more affirmed in their facilitation practices. This section will address the study's second research question, "How do faculty members who have completed the training describe changes in their teacher self-efficacy since the conclusion of the training?" I identified two subthemes within this major theme of confirming effective online facilitation practice: instructor presence and communication.

Instructor Presence

Instructor presence details the roles and responsibilities that faculty members exhibit while facilitating the course through various processes and content, as well as serving as a mentor and guide to students in the class (Goodyear et. al., 2001; Bawane & Spector, 2009). Upon reviewing the responses of participants in the second set of interviews, it was observed that they perceived themselves to possess adept instructor presence skills, and the online training served to bolster their confidence in their abilities. Specifically, participants believed themselves to already possess and implement effective techniques for managing office hours and facilitating class discussions.

Class Discussions

Class discussion in an online class is one strategy to ensure content is being understood by students and create a sense of community among the students. While text-based class discussions are a common medium for many online classes, recent technology has enabled faculty and students to connect via visual-based discussions as well. The responses by the participants indicated their propensity to engage in both textual and visual modes of communication during class discussions, coupled with a prevailing sense of self-efficacy in

terms of effectively managing discussion boards. Within their responses, participants indicated that these methods were already in place prior to the online training.

Text-Based Discussions. Three participants noted that they have used texted-based discussion boards in the institution's LMS. The use of discussion boards has long been a hallmark of online learning (Parks-Stamm et al., 2016; Thorpe, 2016). Participant Four went into detail on how they have always structured their online discussion boards and expectations for students. They shared:

> So, every module also has a discussion board, they have to engage in this discussion board and the rubrics, and it's my rubric, I set it up, they have to, they have to have a primary post, and they have to have to response post to their classmates, they have to be posted over three separate days prior to the due date. And, and they have to cite and reference all of their work, because these are things that we do in a scholarly environment. And so, I read, I let them it's their discussion, and I let them have that discussion. But then I come back, and I read all of their primary posts and their secondary posts, and then I respond to them. And I tell them if they did something, right, and I tell them if they did something wrong, and I always use their name, you know, obviously, great discussion, [name redacted], always remember to cite your reference all of your response post, you know, our post and respond to over three different ways to increase engagement with your classmates.

Participant Four continued later in their interview that:

> You know, I attended an online doctoral program. And so, there were things like the idea of posting primary response, and then two responses across the week on separate days that came from my doctoral program…And so some of that's for my personal experience,

and then some of it's for a lot of the professional development. So, some of the things I was already doing, I found that out in the [online training], I was like, "Oh, I already do that".

Participant Twelve sees the discussion boards as an opportunity to create community among the students, despite the distance. They shared that "at every turn [I] have them interact with each other because it's an online course". They were also encouraged to see in the online training that interactive opportunities in discussion boards was "approved".

Participant Thirteen uses discussion boards as a way for students to engage with one another and to also collaborate on class assignments. They shared:

> They do certain interactive discussions, where they have to respond to peers, but then also, they work to a larger assignment at the end of the semester. So, when I'm preparing how I want it laid out, generally, in my mind, I want smaller assignments that build to a larger assignment at the end… [The online training] had the same approach that they used was a lot of discussions and interaction on the discussion board.

Visual-Based Discussions. There were two mentions of visual-based discussions in participant responses. Participant Nine was very enthusiastic about the use of Flipgrid, a recent online technology service that allows visual discussion, and has since integrated it fully into their online class. They detailed their enthusiasm for Flipgrid and connection to instructor presence as:

> I love Flipgrid. Yeah, it's a really, really convenient, and simple way to create short videos, that you know, and it's like, you know, hey, this is who I am, whatever. And so, like that, that's also really nice. And it also it lets them like, directly engage with me as well, because you know, you can respond each other's videos. Flipgrid also gives the option of like, responding in texts, like if, for some reason, they just don't have the

> bandwidth to do video or whatever. But that's also really nice, because then like, they meet me. And I think that we'll get that that's, that's a form of presence, too.

However, in their same narrative, Participant Nine shared that they were confident to using visual technology in their teaching before the online training. Specifically, Participant Nine used technology to work with homebound students in the K-12 setting. They recalled:

> I had like a Promethean board, I had a smart board, I like the Promethean board better actually. And then like, you know, like various tablets, and like document cameras, and blah, blah, blah, and I'm like, let's freakin' use this. And so, the homebound kids would join the in-person kids…And so like, even when I was a high school teacher, online learning proved to be this very useful thing that allowed me to engage with students that otherwise wouldn't like I would never interact with.

Office Hours

Office hours are often an expectation for all faculty members, regardless of if they are teaching face-to-face or online. It is through office hours that faculty members are available for student questions and concerns; this is especially important for online courses, as there is an extra need for connection with instructors and students with no regular face-to-face meetings. This extra need sometimes requires office hours being hosted via phone or Zoom or held outside of business hours. When asked about their approach to conducting online office hours for their respective courses, the study participants voiced a sense of assurance in their methods and capacity to deliver comprehensive aid to students, both in terms of clarifying course content and providing mentoring, as and when required. Within their responses, participants indicated that these methods were already in place prior to the online training.

Mode of Office Hours. For three participants, Zoom or other form of video conferencing served as the primary mode of office hours. Participant Thirteen shared that when students have concerns in their classes, they will schedule quick, 15-minute zoom sessions. Participant Four also scheduled one-on-one zoom sessions if a student needed assistance. Participant One hosts weekly office hours via Zoom, regardless of if students show or not.

Other participants used emails as a form of office hours with students. Recognizing that students lived in different time zones, and perhaps couldn't meet for office hours, Participant Eight developed an email reply schedule early in their teaching career that students can anticipate. They detailed this email reply schedule as:

> So, I make sure that I like they get dedicated time blocks in the morning and in the afternoon, that I generally respond to email and grade their works. I want that to be predictable for them… So, when an online student messages you, it kind of feels like dog ears, like, if you're waiting that 24 or 48 hours to respond to them, you know, they may only be able to work in the afternoon. So, if you only check, like earlier in the afternoon, they have to wait a whole 'nother day to get to it. And sometimes it looks like procrastination, but it's not. And so, you know, she was like, take some of that pressure off, check your emails twice a day. And that will make all the difference. And once I started doing that, with my online students, it's like the whole dynamic of the course change, because I'm suddenly more available to them.

Participant Eight clarified that this time management and email response strategy was one of the first "pieces of advice" that they got when they started teaching. Therefore, when they started the online training, this practice was already in existence.

Participant Nine also uses email as a form of office hours, saying that they are "aggressively responsive with emails". They cite this aggression "comes from me as a student being really frustrated, by like, needing people to respond to me, just feeling like it went into this black hole of ether". By putting themselves in the position of the student, Participant Nine is reminded of being without communication and does not want the students to be left without. Participant Nine noted that this aspect of student perspectives was missing from the online training. It is important for Participant Nine and their teacher self-efficacy to always keep student perspectives and feedback close; therefore, Participant Nine felt that the online training was not impactful to them in this regard.

One participant, Participant Fifteen, goes as far as to offer their personal cell phone number on the first day of classes. While they host Zoom meetings throughout the semester, Participant Fifteen noted that they get the most interaction from students texting them questions related to the class. They shared:

> I do a Zoom meeting the very first day of each class. And in that Zoom meeting, I openly share my cell phone. So, look, if you have you get stumped, life happens, you're going to be late for an assignment, you it would be best for you to reach out to me ahead of time, either in text or call. And they will call!

In this instance, Participant Fifteen recognized that giving their cell phone number was "doing more than what was suggested" in the training, specifically concerning student mentoring. However, this specific strategy has long worked for Participant Fifteen in their program, and they will continue to use.

Importance of Office Hours. In summary, two participants shared quotes that summarized participant sentiments towards office hours and the associated time towards student

mentoring. Participant Eight shared that after several semesters of online teaching, they now have created an instructor philosophy when working with adult learners. They outlined this philosophy as:

> I feel like I can't address the pedagogy without addressing their adult learning needs first, which sometimes means like having office hours at 8pm, because most of them work, or some of them are like in California. And so, you know, if I have eight o'clock office hours, [some] might not want to talk to me at 6am. And so just considering them as humans first, like, I cannot meet the objectives of the course, unless I meet their needs first.

Participant Eight further detailed this philosophy by saying:

> The biggest piece of advice I think I got that has served me the best really has nothing to do with [the online training] or adult learning theories. But, you know, I had someone tell me in one of those first professional development sessions that online students need you more than your face-to-face students need you. Because they may be working at you know, different times of the day. And that has really stuck with me.

Participant One gave a specific example of this philosophy in action in a previous class, and how office hours and mentoring a student were successful. They shared:

> I kind of go to like an individualized uh plan with that student. And I just worked with them. Like I had one student that was struggling so bad, but I realized that they had never participated in an online course. So, they just did not understand the structure opposed to a face-to-face course. So, we met once a week on a zoom call. And we would go over the assignments. And I would let him asks me questions about how the assignment was structured. What tools could he use online tools to help him complete the assignments.

> And it was, I realized it was just he was afraid of an online course, because he hadn't had one before. So, we just kept doing that every week, up until the course was over. And he ended up doing really well.

While these philosophies and quotes demonstrate participant self-efficacy and abilities, both of these participants noted that many of these skills, strategies, and abilities were cultivated before the online training and are continually maintained.

Communication Strategies

As a part of their overall facilitation responsibilities in an online course, faculty members also maintain other forms of communication with students outside of instructor presence. In addition to being subject matter experts and mentors, faculty members also play a role in providing feedback to students and ensuring the technical aspects of the course are properly maintained (Goodyear et. al., 2001; Varvel, 2007). During the second round of interviews, participants expressed a high level of self-efficacy in providing feedback and digital support to students within the learning management system. They perceived that this self-efficacy was present before the online training and was further strengthened by the training.

Giving Feedback

Many participants indicated in their interviews that they are very mindful of the feedback and grades that they provide to students in their online courses. Participant Fourteen's response was representative of many participants in saying, "I'm not cutting corners, so to speak. I still hold myself to high sense of integrity. Where I'm really grading, I'm really reading, you know, the assignments and giving feedback." Others' interviews provided specific examples of how they give individualized and detailed feedback, either by explaining their process for tailoring feedback or by illustrating the level of detail they include.

Individualized and Personal Feedback. Participants Twelve and Thirteen shared how they always incorporate a student's personal name into feedback as they are grading an assignment. Specifically. Participant Twelve shared:

> I try to make sure that when I'm engaging with them, in assignments, that I'm not just grading assignments, but then I'm giving them personal feedback. So that I'm saying, "[name redacted], you did a great job on this piece". You, you know, and they did really focus on this piece of it, whatever. So that it's very personal to them.

Participant Thirteen has seen the positive results of giving individualized feedback on assignments. These results included further discussion with students in office hours and email conversations, and students performing better on assignments. They recalled:

> But I try to give individualized feedback as much as possible to that individual on their assignment…. they'll email me separately and say, "Oh, thank you for your feedback, I have a question about this. Can you tell me a little bit more?" Because I'll say, within the feedback, I'll say, if you have any questions, or if this is not clear, to let me know.

However, both Participants Twelve and Thirteen agree that the online training served as reminder or reconfirmation of including individualized feedback. Instead, these participants learned more about giving feedback from their campus partnerships with instructional designers. Participant Thirteen shared that:

> Everything that I've ever learned [about feedback] has just been through working with, you know, [instructional designers] and them helping us develop courses. And then really just being personal and what I would want to say and do as a student, trying to always think that way, when I was putting things in the course.

Detailed and Through Feedback. Participants Four and Nine offered specific details in their interviews of how they give detailed feedback in their online courses. For Participant Four, they pay attention to not only components of the assignment, but also resources within the courses such as links and videos. They shared:

> And then after every single discussion, assignment, whenever I come back, and I say, "Hello, [redacted name], you did a great job on these, please little more attention to APA". You know, and then and then I said, I've said repeatedly on this assignment, "make sure you're using Google Sheets, make sure you watch Dr. [redacted name] videos, and absolutely reach out to me."

For Participant Nine, they prefer to leave visual or audio feedback on assignments for students. They shared:

> I give tons of feedback, and so if it's a, if it's a Flipgrid video, then I like I can respond in video, because a lot of times, it's easier to talk it out than it is to try to type it out. You know, what I also give tons of written feedback as well, as you know, and so, I think that those are like the big things for sure is the explicit expectations and explicit feedback.

Participant Fifteen gives detailed feedback on their assignments and offers their students an opportunity to their students to resubmit assignments based on that feedback. Participant Fifteen made this teaching decision after students were struggling in a previous class to grasp the content. They shared a specific story of a student who inspired this decision:

> When she started the assignment, she wrote what she thought should be there, but never looked at… obviously never looked at the rubric. So, none of the questions on the rubric were addressed. So, while she had this beautiful discussion, it had nothing to do with what was on the rubric. So, my note to her was, "Wow, well written, but the paper did not

address critical elements of the rubric". And I was very detailed in my feedback, So I gave her a week where she could revise the assignment based on the feedback that I've gave her you and she could resubmit it. And I would reevaluate it and the higher of the two grades will be put in the gradebook.

Participant Ten was also incredibly mindful of how students grasp concepts in their courses and how they deliver feedback. Particularly, in the discipline of nursing, Participant Ten realizes that they are creating future healthcare leaders who are responsible for life and death situations. They recalled in their interview:

> I gave the student feedback, which was lengthy feedback, because [they're working with] patients, and then that grading it, there's a range of grades that you can give for a certain [patient] case. And I just felt like it needed to be more detailed, that it didn't have enough detail for the scenario. It had had to do with acceptability for the profession.

However, for both Participants Fifteen and Ten, the emphasis of the profession and career, took precedent early in their teaching career, meaning that they needed to take detailed feedback seriously early. Therefore, by the time they took the online training, they were already giving detailed feedback and felt confident in their abilities to do so. Participant Ten went on to share in their interview:

> I was in a specialty area, part of my job besides seeing patients was helping to train resident physician in the area in which my specialty and s, they work closely with our staff on different aspects of patient care. And so, I think that was helpful and informative to me when I came in to teach online.

Large Class Sections versus Small Class Sections. While sharing their experiences with providing personalized and detailed feedback to online students, two participants shared unique

perspectives on providing feedback to undergraduate students in an online setting. Specifically, Participants Two and Three work in the College of Arts & Sciences at the institution and teach multiple, large online sections. Both participants shared that they have had to adapt their teaching practices due to their student populations. Participant Two shared that in the past they have had upwards of 280 students. In those early teaching experiences, they have attempted to do essays and discussion boards; however, those course activities required too much of their time as an instructor. They shared:

> I think a lot of [giving feedback] comes from experience, especially having taught this specific class and having taught many, many students before. If I were, I mean, I know… I know that this class is always going to be full, and I'm always gonna have four sections. But all colleagues are often going to have more than one section, maybe two or three or four sections, too. So, it's got to be… I knew that it has to be like a balance of what I can grade, realistically, and what the students can do. You know, I've taught the class before where there were more assignments that needed my input, like discussion boards, essays, those kinds of things. And that was a breaking point for me. And now I do think about that, when I like put [the course] together, you know, I have an assignment where it's 20 points, and I have assignment where the 100 points and like, I try to make it balanced.

Participant Three approximately 125 students per semester and has noted that with each passing semester, online undergraduate students are more insistent for instant feedback. This pressure for instant feedback has put pressure on them in their teaching and course design. They elaborated that:

> So, they want that instant feedback, like a video game. But I want to make sure that I give a fair grade and if there's feedback needed that I give some kind of feedback. Well, you

know, I If I don't come up with some way to speed go through it, I'm gonna be here all day.

Participant Three went on to share:

> I made a “Here's a tutorial on how to read the feedback” video [in the LMS]. And I'll get immediately responses, “how do I view the feedback”? So, and again, some of that, I think, is the this excessively familiar culture where they're just accustomed to ask and instead of trying to figure it out themselves.

When asked more directly about how they cultivated these feedback strategies with such large online sections, both Participants Two and Three stated that these strategies came from personal experiences and teaching these classes multiple times, not the online training and very little formal professional development. Participant Two offered explicit critiques of the online training and how it did not prepare them for providing feedback. They shared:

> I think that's like where I find [the training] falls down a little bit. Like if I only had 20 students, I would do all the stuff in [the training], like it would be no, no big deal. But I have 280…. You know, like, I do the absolute best I can. I'm really good at time management. Like, if I can toot my own horn like, I'm really good. Yeah, I can't do all the things all the time. And I can't, I can't reach out to every single one [of my students].

Digital Communication

Throughout conversations with participants, they mentioned other, unique methods of interacting with students. These methods were used to not only increase instructor presence, but also to strength communication lines between instructor and student. By implementing these methods, faculty members felt more effective as facilitators of their course (Goodyear et. al., 2001; Varvel, 2007).

Images. Some participants used images to increase student engagement within the course. Specifically, Participants Three and Nine used personal images and memes in their online courses. Participant Three recalled a discussion board early in their teaching career where students were not interacting because they "were scared to death". To increase interaction, they included personal photos that included more about them as an instructor. They detailed that:

> So, I go in on the intro [discussion] and I actually did HTML in there, so that it has images and maps and all kinds of fun stuff and I made Photoshop so like I was a private investigator at one point. So, I have a picture of like Magnum P.I. with my head over Tom Selleck and pictures of our goats and the donkey and stuff like that. And I tell them my story. Some of them read it and they mentioned something [to me] and say that they remembered yeah about this or that.

Participant Nine finds that images give personality to the overall learning management system, whereas before there was not much personalization before. By adding the personalization, it adds instructor presence and makes the course easier to use from a technical aspect for students. They described this personalization as:

> One of the things that I do, and I do this in all my classes, it doesn't matter if it's going to be face to face or if it's going to be online or if it's going to be hybrid, but like a lot of there's a lot of like personality in the learning management system. So, like, I love memes, frankly. And so like, there's always like, Bat Girl meme about the syllabus and like, you know, like, I have Yoda memes about reading the syllabus. I will also organize the learning platform, where it's like, week one, this thing, you know, week two, this thing. And so, like, the readings like we want, these are the things that you read, you know, week one, like, here's, you know, here's the PowerPoint, here are the handouts, you

> know, whatever. Um, and so there's, there's that as a form of communication as well. And there's a lot of like, and so there's a lot of like images inserted [in the LMS]. Because I like images, frankly. I am very visual personal.

While the online training encourages the digital interaction and personalization of online courses, both Participants Three and Nine indicated that the development of these strategies came from outside the online training. For example, Participant Three felt that images were a better use of their time than developing videos that "nobody wants".

Videos. In order to help students and the mastery of content, some participants opted to create videos for their courses. In their same comments around images, Participant Nine also commented that they created a lot of videos for their students in their online courses. Reiterating that they themselves were a "visual learner," they felt it important to also provide as many visual aids as possible to students in their online courses. Participant Nine described the create of visual aids and videos as:

> So, I create a number of like, "How To" videos. And so like, when I want students to use Flipgrid, I have a "How to Do Flipgrid," like, where I talk them through that. I walk them through what I want students to use. I have some other ones too; I forget what they are. It's very frustrating for me, when people treat things that I find very difficult as if like, "It's real obvious, like, it's not hard, you won't have any problem with it!" And then I'm sitting there and like, "I have all the problems with it". And like, and I don't, I don't even know what questions to ask to make this go. So, it's like anything I want them to use, like technology-wise…I have "How To" videos.

Participant Ten also uses videos frequently in their class, especially to send messages to students who are not able to meet at the same time due to time zone differences. They shared that:

> Sometimes I have made a video and put in the course [because] you can't get all students together. For instance, today, the class is going over a patient case study…We will have another professor do that live, which requires them some to be in the same place at the same time, even though others are in different time zones. And so, I'm happy to walk through the course with them and give them instructions.

When asked directly about the development of teacher self-efficacy, the creation of videos in the courses, and the online training, both Participant Nine and Ten agreed that their self-efficacy was in place before the online training. Specifically, Participant Ten detailed that concepts in the training, specifically regarding student-instructor communication, were concepts that they had "already been taught".

GroupMe. One participant also shared how they interacted with their students in a group text format, using the phone application GroupMe. Participant Two, who teaches large, undergraduate sections, was invited to participate in a GroupMe messaging group by a student and did not create one for their own class. While the GroupMe was used for mostly for class and social announcements, there were some negative instances of the GroupMe, such as academic dishonesty and students speaking negatively of the instructor. Participant Two recalled:

> Mostly, they used it to talk about the football games. And It was great. [But then] they're teaching each other how to cheat on the quizzes. And I can't catch them. Because of the way you know, like, I just haven't, the quizzes are multiple choice. And there's no way to

like, prove that they cheated or not. But they're teaching each other like how to get by the quizzes. So that was one thing.

Participant Two went on to detail how one student reacted negatively in the GroupMe when an assignment had been adjusted due to time constraints.

> And I can see her in this group me discussion, like mouthing off. So, it's really hard to want to help her. Yeah…. she's called, uh, called me not nice things. And I haven't actually had this before, like, usually my students are smooth sailing.

Returning to Participant Two's comments on their perception of the online training provided by the institution, Participant Two felt that this particular aspect of the, while encouraged, did not take into consideration the nuances of undergraduate education. Specifically, this participant felt that the online training did not address how "they're mostly 18–19-year-olds, and they're just learning how to college. And maybe their brain isn't fully formed yet." Therefore, this particular aspect of training did not confirm any aspect of their teacher self-efficacy.

Evolving Online Environment

Ongoing Issues

For many of these faculty members, teaching online has become second nature to them. However, even in their many semesters of teaching online, participants still encounter issues and challenges. As the internet and students evolve every semester, the challenges that faculty members face also evolve. In the faculty narratives collected during the third stage of data collection, it was evident that even seasoned faculty members still face struggles. This section will address the study's third research question, "How do faculty who have completed the training envision continued engagement, support, and professional development regarding online

teaching?" In my findings, I found that faculty members are concerned with academic dishonesty, student welfare, and intensive labor to create online classes. While these particular participants share concerns, they do feel positive support from their institution and campus partnerships.

Academic Dishonesty

Academic dishonesty and cheating are present concerns for many faculty members who teach online. For Participant Eight encountered an issue when Turnitin, a digital plagiarism detector, alerted potential plagiarism in their course. However, upon further investigation, this issue stemmed from when a student didn't not know to use the American Psychological Association (APA) citation correctly.

Participant Two has encountered many academic integrity issues in their courses and attempts to plans for them in their course design. They describe their semesterly struggle as:

> They [the students] are teaching each other how to cheat on the quizzes. But I can't catch them. Because of the quizzes are multiple choice. And there's no way to like to prove that they cheated or not. But they're teaching each other like how to get by the quizzes. I will re-visit the quizzes (AGAIN) to make sure they are fair. [participant added]. I'm considering ways to have fewer quizzes. I don't know if there are parts I just won't do... I think mostly it is a great course that just needs some tweaks.

New Student Needs and Welfare

Building on Participant Eight's comments on a student not being prepared to work with APA citations, other faculty members cited similar concerns with students being unprepared to face course content, or shared concerns on student welfare in general. Participant Four shared that they no longer assume students know how to correct write research statements when they

begin their online courses; in their same narrative, Participant Four also wishes that their students would manage their time better and turn assignments in sooner or on time. Participant Eleven shared that they struggle every semester to get students engaged in online discussions and not doing "just the bare minimum". Participant Eight went on to share in their comments that:

> I had to provide them resources, and a lot of that was not provided, like in the course, that's just stuff that like, I mean, honestly, I had to Google it. And as an instructor trying to grade all this and give them what I think is appropriate feedback, I didn't really have time to create them anything. So, I had to kind of outsource it, which wasn't all bad. I tried to stick with things, that had like, .org or .edu web addresses.

In their narratives, Participants Two and Three, who teach undergraduate courses, have noted continued pushback from students, in that the content seems harder and more students complain. Participant Two shared that this past semester, their students seemed "crankier…Their grades are not as high". They went on to share that:

> I have had more pushback in my email about assignments. So, it's just different. I know that it's just different. It's just not an essay A. It's just, it's not something that they can whip out into hours. And they don't like that.

Participant Three added that the pushback from students has caused them to "dumb down my courses if I want to keep my job"

While some participants had undergraduate or younger student learners, some participants had non-traditional and adult learners. With those adult learners came adult problems, such as challenges adjusting from professional life to school, as well as balancing families and school. In their narrative, Participant Twelve noted this constant balance between

serving undergraduate/ traditional students between adult learners in the same program. They shared:

> When I started teaching our [redacted program] students, it was very adult learners. Now we have a lot of students that come straight out of the community college into our programming. I'm not saying they're not adult learners, but there are more traditional learners, you know, they're more haven't had a lot of professional experience. So, it is a balance.

As opposed to Participant Twelve, Participant Nine's program has almost exclusively adult learners. This means adjusting their teaching delivery to meet the needs of their adult learners, such as children in the back of Zoom sessions and adjusting deadlines. They shared:

> Online teaching affords students ways to participate while struggling with childcare needs, illnesses. However, there are still challenges such internet stability and Zoom fatigue is REAL these days, for everyone [participant added].

Online Teaching as Labor Intensive

A major sub theme in participant written responses at the end of the semester was the intense labor that goes into creating and maintain an online course. Participant Six wrote that they are working with their department to get more sections added to decrease their current student load, because they "cannot provide the individualized attention [students] need and deserve". Participant Eleven, who also serves as the program advisor and instructor for 70 students, went into detail about the amount of work they need to complete as an administrator, advisor, and instructor. This quote was represented among many participants and the time management it takes to be a faculty member and teach:

> Yeah, sadly, and especially this time of year, a lot of emails. And so, you kind of find yourself putting out fires doing emails, I just finished my compliance training. Actually, I've got one more left. I don't think it's necessarily that I don't have I mean, I think it's, it's probably not accurate to say, I don't have time to grade discussion posts. It's that it's about it's probably more about it's more about if you don't truly believe that the discussion goes, or you put your I think your focus your time where you think is going to have the greatest return?... I think if I had to guess there's the maintenance, there's the creation of Blackboard, there's the creation of the quizzes, there's updating the quizzes, there's the email back and forth, there's the assignments, the emails are across the board, they're department level meetings, emails, they're University type emails, they're, you know, dozens of emails about the students missing class. And when you if you do you teach also, yeah, I'll probably process 15 emails today about students missing class, and I'm gonna go in class, or I'm gonna go home or car died this that the other is like, so each, you know, each one of those is there's a chunk of time.

Positive Institutional Support

While these faculty participants face ongoing issues and challenges, many participants agreed that they feel supported by their institution in their teaching and faculty work. Specifically, in the third set of interviews, and in reviewing the first two set of interviews, faculty participants routinely referred to the campus partnership with the instructional designers as a source of strength and development in their teacher self-efficacy. Simply put by Participant Twelve, "I depend on [instructional designers] to provide my online teaching professional development." Participant Twelve also stated that this particular partnership with instructional designers has "…always been one that has been extremely valuable to everybody…I have felt

like was very valuable. Always just listened to what [they have] has said, if they said…So, yeah, very good use of that partnership". Participant Four also shared positive perceptions of this relationship, by sharing how easy it is to just "reach out to [instructional designers] …to be advised".

Participant Thirteen has also had a positive relationship with the institution's instructional designers. When working with the instructional designers, they learned about teaching from the student perspective and aligning the assignments with the objectives of the course. They shared that:

> Working with [the instructional designers] them helping us develop courses [helped me]. You know, just knowing that I don't like, as a student do a lot of busy work, and that sort of thing. Like I need something where I know why I'm doing things that I'm doing. And I think [the instructional designers] have done that. For me, it's shown that this is the way that you can show the students why they're doing this assignment because it links it back. Even as painful it is it is as a faculty to link it back. Now I see that, and I don't think that I really knew that.

For Participant Ten, they have been so inspired by their teaching development, that they are considering taking bigger steps outside of their discipline. They shared:

> Outside the nursing college but inside and outside the university, I will continue to attend the [instructional design] sessions and seek opportunities to learn more. Inside the [the university] I am currently considering enrolling in a master's in teaching course which is in the planning stages. I have also considered getting a teaching certificate from the [accreditation agency] which is outside the college.

Chapter Summary

Throughout this chapter, three major themes have been highlighted in detailed: dual career experiences, confirmation of effective online facilitation practices, and evolving online teaching environments. Within each major theme, various subthemes have been outlined with numerous quotes from two sets of interviews and faculty narratives collected for this study. In the next chapter, analysis from these findings will be drawn, contributions made to theory, and overall conclusions will be shared.

CHAPTER 5

INREPRETATION, RECOMMENDATIONS, AND CONCLUSION

Overview

In this chapter, I will present my interpretations, recommendations, and overall conclusions for this study. Using the findings from Chapter 4, I analyze and interpret the findings to answer the three main research questions of this study and the overall purpose of this study- to explore faculty perceptions of a professional development workshop on the topic of online teaching, through the lens of teacher self-efficacy. I also use my findings and interpretation of this study against the existing literature and usage of teacher self-efficacy in higher education and faculty professional development. I will offer recommendations for practice and future research and conclude with final reflections.

Research Question 1: How do faculty members who have completed the training describe or narrate changes in their teacher self-efficacy during the training?

The study intended to isolate any changes that occurring during the online training. However, in the interviews conducted with participants, most participants perceived changes in their teacher self-efficacy occurring before enrolling in the online training. When reflecting on which sources of teacher self-efficacy did have an impact on their online teaching, participants cited instructional design partnerships, trial and error, and faculty collaborations. Additionally, twelve of the fourteen participants narrated the changes in their teacher self-efficacy in relation to their mid-career changes between their professional industries and becoming faculty members. In order to fully answer this first research question, I have categorized my analysis into three

themes that I observed from the data: the cycle of teacher self-efficacy in action, teacher self-efficacy as adaptation, and teacher self-efficacy as flashpoints. Regardless of how the participant narrated the changes in their teacher self-efficacy or which sources of self-efficacy had the most impact on them, all fourteen participants indicated changes in their teacher self-efficacy at some point in their teaching career. More specifically, participants in this study describe their changes in their teacher self-efficacy as an adaptation that occurred over time, or participants described changes in their teacher self-efficacy as a response to a flashpoint or significant moment early in their teaching career.

Cycle of Teacher Self-Efficacy in Action

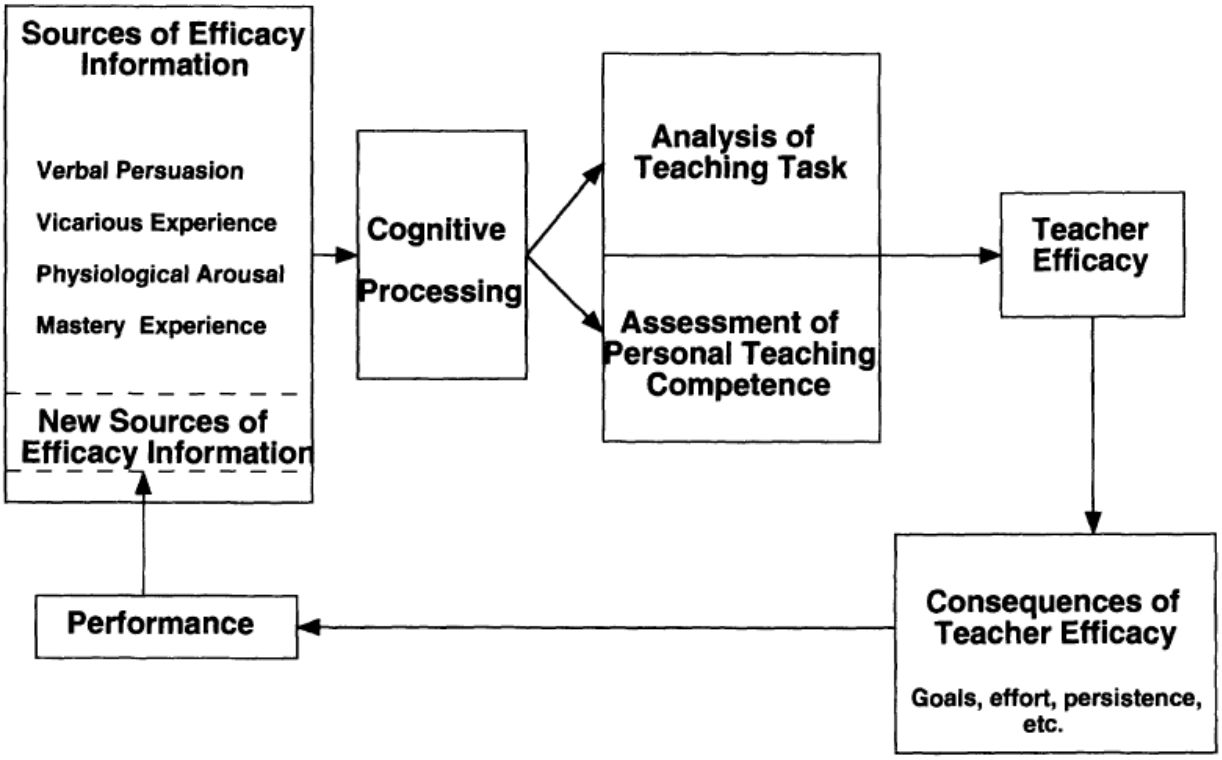
As outlined in Chapter 4, twelve of the fourteen participants narrated changes in their teacher self-efficacy in relation to their mid-career changes from their respective professional field to academia. This unique rate of responses among participants relates back to ongoing faculty trends nationwide, as indicated in literature. Austin and Scorcinelli (2013) have referred to these types of faculty members as "dual career faculty members", in that these faculty members bring previous work experiences, skills, and knowledge to a classroom, as opposed to traversing a more traditional academic path. Finklestein et al. (2016) and the AAUP (2018) both estimated these dual career faculty members out-represent tenured and tenured-track faculty members. While these dual career faculty members made their various transitions, faculty of this nature face several challenges in their transition to academia, such as adapting to teaching responsibilities. Within participant narratives, some career transitions were smoother than others' however, many participants remarked that coming into academia was a change from their previous careers.

Throughout all participant interviews and narratives, the cycle of teacher self-efficacy was evident in their stories. As the participants continued to adapt to changes, or overcome significant moments or flashpoints of challenge, all participants perceived that they have success in the online classroom. All of these experiences, regardless of if they were moments of adaptation or moments of challenge, still demonstrated aspects of the cycle of teacher self-efficacy, and more specifically, the four sources of self-efficacy in action.

A person's knowledge and actions are shaped by the four sources of self-efficacy. These sources include mastery of experiences, vicarious experiences, verbal persuasion, and emotional arousal (Bandura, 1977; Tschannen-Moran et al., 1998). By evaluating these sources, a person determines how to behave. After implementing their planned behavior, a person then sets goals and reflects on their actions. This dynamic cycle between sources of self-efficacy, personal competences, and teaching action is perpetuated by these sources of self-efficacy. Pictorial evidence of this dynamic cycle of teacher self-efficacy can be seen in Figure 5.1 below, for comparison.

Figure 5.1

Model of Teacher Self-Efficacy



From "Teacher Efficacy: Its Meaning and Measure," by M. Tschannen-Moran, A.W. Hoy, and W.K. Hoy, 1998, *Review of Educational Research, 68*(2), p. 288

Teacher Self-Efficacy as Adaptation

For eleven of the participants, perceived changes in their teacher-self efficacy were slight changes and adaptations over time, rather than handful of specific moments or flashpoints in their careers. For example, Participants Nine and Eleven alluded to relying on years of experience within teaching, adapting to new technology and challenges along the way. These perceptions that Participants Nine and Eleven share closely align with Bandura's (1977) four sources of self-efficacy, specifically, the source of mastery of experience. Bandura stated that "repeated success" in a particular area of expertise constitutes the primary source of mastery of

experience. In contrast, he suggested that "repeated failures" or early mishaps encountered during the process of knowledge acquisition would have a detrimental effect on an individual's self-efficacy (Bandura, p. 195). It is from this source of self-efficacy the participants inform their teaching knowledge, and ultimately their teaching action.

Similar to Participants Nine and Eleven, Participants Ten and Twelve also referred to changes in their teacher self-efficacy over the course of many years. These two participants relied on the instructional design partnership over the course of their teaching career to help develop their teacher self-efficacy. When comparing their perceptions to published findings, their experiences most closely align with Bandura's source of efficacy, verbal persuasion. Bandura characterized verbal persuasion as an efficacy source that involves the deliberate effort to "influence individuals through the use of suggestion". (Bandura, p. 198). Like mastery of experiences, repeated failures within this source of efficacy could lead to lower self-efficacy. Nevertheless, the interaction with verbal persuasion may provide feedback on experiences and behaviors, thereby facilitating corrective actions. As these participants continued to teach online, relying on verbal and visual feedback with instructional designers led to continued success in their online classroom and greater development of their teacher self-efficacy.

As this study sought to narrate changes in participants teacher self-efficacy, it is important to chart participant responses against the similar study of Tschannen-Moran, Hoy, and Hoy (1998). According to Tschannen-Moran, Hoy, and Hoy, teachers and faculty undergo an additional evaluation in this dynamic cycle of self-efficacy, called dual cognitive processing. In an educational setting, teachers not only evaluate their personal competence to complete a teaching task, but also the environment in which a teaching task is occurring (Tschannen-Moran et. al., 1998). Other elements considered in this dual cognitive processing are their "motivation,

goals, persistence and risk-taking" (Tschannen-Moran et. al., p. 239). In the case of eleven participants in this study, tracing the cycle of teacher self-efficacy was more difficult, as some participants were not able to distinguish or recall specific teaching moments where they analyzed their teaching competence and the teaching environment. However, these eleven participants *were* able to articulate sources of self-efficacy that made them more confident in teaching in an online course (i.e., years of face-to-face teaching or instructional design partnerships). As a result of these sources of self-efficacy, their online courses are considered successful among colleagues and students (i.e., positive student feedback), and they feel more confident as instructors. However, the absence or inability to distinguish the other stages of teacher-self-efficacy leads to more analysis regarding the uniqueness of this case study.

When balancing participant responses with the institutional context of this case study (including a large team of instructional designers), faculty may not have "embod[ied]" their own selves in faculty developments (Broud & Brew, 2013), but instead created a hybrid form teacher self-efficacy. Some participants may have relied on the skills-based development of their discipline or campus partnerships as the main efficacy source to gain their confidences (as a form of outsourcing) as well as engaging with course content. This was most evident in participant responses regarding course design and instructional designers (i.e., Participant Twelve and Thirteen), and a lack of responses regarding technology competence. While these participants demonstrated a mastery of their content and ability to engage students, it was evident that they also relied on instructional designers for technology and course design support. In this case study, these participants are still demonstrating dual cognitive processing by analyzing the context of task at hand, and their previous knowledge and skills (Tschannen-Moran et al., 1998). For this particular institution and these particular participants, the context at hand would be to

involve instructional designers in the process of making informed teaching decisions by considering their institution resources (Fabriz et al., 2021). By linking the context of their institution with their individual competencies, faculty members can more readily attain their teaching goals and overcome potential barriers in future online teaching.

Teacher Self-Efficacy as Flashpoints

While most participants recall their teaching careers as an adaptation in their teacher self-efficacy, four participants were able to clearly remember flashpoints or critical moments where their teacher self-efficacy was significantly defined or changed. These are considered flashpoints as these moments stand out specifically to these participants as a particularly challenging moment that defined their teaching career. For example, Participant Four had to teach a course where they were unfamiliar with the topic and Participant Fifteen recalled being handed a program design their first semester teaching. For Participant Four, they collaborated with a faculty mentor to prepare for the course; for Participant Fifteen, they used a variety of sources to prepare for the program redesign, such as the instructional design partnership and trial and error. These experiences Participants Four and Fifteen experienced closely align with Bandura's sources of vicarious experiences and emotional arousal.

Participant Four overcame their critical moment or challenge by watching another faculty member teach the topic and interact with students in the context of the online course. As a result of this observation, Participant Four gained the confidence to teach through their mentor's performance. Bandura described this action as vicarious experiences or "seeing others perform threatening activities without adverse consequences" (Bandura, p. 197). This source demonstrates a reduction in fear and an illustration of successful outcomes. In the case of

Participant Four and others, watching faculty mentors teach allowed them to gain the confidence in a certain subject area to then teach on their own.

Participant Fifteen overcame their critical teaching moment by first attempting to redesign the program on their own. It was during this trying time Participant Fifteen recalls feeling very overwhelmed. Participant Fifteen's experience most closely aligned with Bandura's final source of self-efficacy, emotional arousal. Bandura details the source of self-efficacy as "stressful and taxing situations [that] elicit …informative value" around self-efficacy (Bandura, p. 198). As a result of feeling anxious and with no viable way to perform the task at hand, Participant Fifteen was called to action and found a way to redesign the program of study with the help of instructional designers after two semesters.

While these participants were the minority of responses in comparison with the rest of the participant pool in how they narrated the changes in their teacher self-efficacy, these participants were able to clearly articulate all stages of the teacher self-efficacy cycle, including the dual cognitive processing stage. For these participants, they were each faced with a challenge and thus decided to navigate that challenge. Within each decision-making process, each participant evaluated the context of the teaching environment, as well as their own teaching competence. For Participant Four, there was an opportunity to shadow an instructor who was teaching the new course they were tasked to teach; for Participant Fifteen, they initially felt confident enough in their technology skills to create LMS courses, but then re-evaluated after the first semester. These participants demonstrated the ability "[to] connect sites and practices…within groups and environments" (Broud & Brew, p. 211). These participants critically engaged the context of the courses, as well as their personal competence to teach the courses. Through integrating the content of their courses with their personal skills and abilities, the participants can become

completely engrossed in their teaching practice, which decreases the probability of encountering barriers in online teaching because of their immersion and connection. As a result, faculty members will be able to assess, contemplate, and apply suitable teaching techniques in the future by deliberately utilizing their skills within the course's context (Fabriz et al., 2021; Tschannen-Moran et al., 1998).

Research Question 2: How do faculty members who have completed the training describe changes in their teacher self-efficacy since the conclusion of the training?

In answering this research question, participants in this study *did not* perceive the learning outcomes of this online training as having a significant impact on their teacher self-efficacy or a significant impact on their continued implementation of online teaching. Instead, more participants pointed to the instructional design partnership at the institution, as well as faculty collaboration and trial and error as having an impact on their teacher self-efficacy. Participants did perceive this online training as a reconfirmation of facilitation practices, they were already conducting in their online courses. Throughout my analysis, I was able to perceive where faculty members had their strengths, and through a lack of responses, I was able to perceive gaps in faculty professional development. In order to answer this second research question fully, I have categorized three themes: the perceived role of the online workshop, researcher- perceived strengths in administrative and pedagogy competencies; and researcher-perceived gaps in technology competencies.

The Perceived Role of the Online Workshop

Out of the fourteen participants, eleven participants shared their experiences in the online training were not impactful on their teacher self-efficacy. Some participants were more explicit in their feedback (Participants Two, Three, Nine, and Eleven), while the rest were more subdue

in their responses, sharing that the online workshop served as a reconfirmation of what they were already doing in their online courses.

A topic repeatedly emphasized within the participant interviews and narratives was the ability to manage time well and good qualities of administration for an online course to succeed, such as good communication and the ability to delegate. This was specifically addressed in Participants Five, Six, Eight, Ten, and Eleven's narratives, and alluded to in other participant narratives as well. Varvel (2007) described these abilities under "personal roles and qualities" and stated that competent instructors possess "adequate time management skills…that do not interfere with his/her ability to instruct the course" (Varvel, Personal Roles and Responsibilities section, para. 12). Participants felt it was important to learn these aspects of time management and administration early, because email and virtual office hours are the few ways online students stay connected with instructors. This vital lifeline between instructors and students needs to be maintained multiple times a day. Therefore, intertwined with the comments on learning time management early in one's teaching career, many participants outright stated or alluded that this online training should be mandatory for new faculty members as this training did focus on aspects of time management and communication skills as an online instructor.

Researcher- Perceived Strengths in Administrative and Pedagogy Competencies

Throughout interactions with participants, many were quick to share their perceived successes in their online courses. Such successes included welcoming instructor presence through class discussions and virtual office hours, strong communication skills such as giving feedback to students and proficient use of digital media. According to Bigatel et. al. (2012) and the Penn State World Campus Faculty Competencies for Online Teaching (2011), pedagogy competencies include "respond[ing] to student inquiries…have mastery of course content,

structure, and organization…[and] monitor[ing] and managing[ing] student progress" (Pennsylvania State University, 2011). For administration competencies, online instructors should include "log[ging] into the course to actively participate…provid[ing] a comprehensive syllabus that adheres to institutional policies…[and] communicate expectations of student course behavior (Pennsylvania State University, 2011, p. 3-5). When analyzing these specific participant responses, participants were demonstrating competencies in administration (weekly emails and virtual office hours) and pedagogy (use of discussion boards and use of detailed feedback). These example competencies refer back to Bigatel et al.'s (2012) study, where survey respondents associated successful online teaching behavior with administrative roles.

While participants may not have perceived these strengths as competencies, some participants did make connections to the various roles or hats one wears as an online instructor, such as facilitator, mentor, and course designer. Looking at each of these perceived roles, I will relate the participant responses back to previous studies and thus their respective, established competencies.

Facilitator Roles

In many participant responses, there were indications of instructors engaging students to create a successful online community, such as using online class discussions or offering individualized or detailed feedback. For example, Participant Thirteen uses discussion boards to encourage collaboration between students on group projects and receives positive student feedback from this strategy. Participant Four makes sures to include links and resources in their feedback to students. These activities undertaken by the participants fall under the role of "facilitator," according to previously published scholars. Goodyear et. al. (2001) described the facilitator role with two distinctions: process facilitators and content facilitators. A process

facilitator supports a "range of online activities that are supportive of online learning" (Goodyear et al., p. 69). Such activities for a process facilitator could include welcoming the class, establishing ground rules, creating community, managing communication, modeling social behavior, and establishing one's own social identity (Goodyear et al., 2001). Goodyear et. al. also described a content facilitator, who supports activities "directly facilitating the learners' growth and understanding of course material" (Goodyear et al., p. 69). Such activities for a content facilitator can include summarizing discussion boards and providing feedback. Within this study, there is evidence to demonstrate that participants were engaged in both process and content facilitator roles.

These facilitator activities and roles relate back to the competency of administration and pedagogy through a series of peer-reviewed articles. In a study conducted by Williams (2003), the author established a relationship between administrative competencies and the various roles faculty play in online classrooms. While an administrative role was identified, Williams also found a correlation between administrative competencies and other roles such as facilitator and mentor. (p. 53). According to Goodyear et al. (2001), the faculty role of pedagogue includes referring students to support services and efficiently managing time and communication (p. 71). The correlation between faculty roles and competencies in administration and pedagogy observed in this study indicates that the participants possess not only confidence in these roles, but also capability.

Mentor Roles

Another area in which participants demonstrated perceived capability was student mentoring. Specifically, this was observed in their responses when asked about office hours strategies. For example, Participant Eight described their detailed email communication policy,

and Participant One shared a story about meeting once a week via Zoom with a struggling student. These actions undertaken by the participants most closely resemble the role of mentor in an online classroom. According to Aydin (2005), a mentor in an online classroom is one who "provides guidance to student when they are working on their assignments…and/or direct students to related support services" (p. 61). Bawane and Spector (2009) provided a more elaborate definition of the faculty role as educators who place emphasis on encouraging and enabling students to become self-directed learners. To enhance student motivation, some strategies that have been suggested including fostering social interaction among students, promoting student participation, and offering comprehensive and constructive feedback (Aydin, 2005; Bawane & Spector, 2009). Within this study, participants were providing such strategies and activities to students in their courses.

The link between faculty roles and the competencies of pedagogy and administration is supported by previous studies. Aydin's (2005) study emphasized the importance of faculty members demonstrating appropriate instructional strategies and developing adequate mentoring resources while fulfilling their role as a material producer or facilitator (p. 67). Furthermore, Varvel's (2007) work identified similar competencies, highlighting the need for online instructors to possess skills related to content knowledge, teaching commitment, communication ability, and time management ability while fulfilling their role as a technologist in an online class (Varvel, Communication Ability section; Time Management Ability section). The reciprocal relationship between roles and competencies in literature reinforces the prevalence of role- and competency-based development in faculty training.

As evidenced in this study, participants were able to articulate examples of their skills and competencies as facilitators and mentors in their respective courses. The participants felt that

the online training provided by the institution reaffirmed their teacher self-efficacy in these competencies, as many participants already instituted practices that were suggested by the online training. As a result of consistent implementation of these practices, the participants reported a sense of complete immersion in the competencies. Consequently, they believe that they will not face any obstacles related to these competencies in the future.

Researcher- Perceived Gaps in Technology Competencies

While participants went into great detail about their instructor presence and communication skills, there were some researcher-observed gaps among other important skills and competencies for online teaching According to the Penn State World Campus Faculty Competencies for Online Teaching (2011) and Bigatel et al. (2012), technology competencies include "comput[ing] basic computer operations…effectively use course management systems…[and] manage student submissions" (Pennsylvania State University, p.3). Bawane and Spector (2009) further detailed the technology competency to connect with the role of course designer, in that faculty need to possess the skills and knowledge to create and design instructional strategies to achieve student learning outcomes (p. 392).

When reviewing participant responses, most participants viewed their technology competency in relation to the instructional design partnership, going even as far as to say that they would "just send to [the instructional designer]" if something were not working in their online course. This quote was alluded to or repeated in other interviews and gives the perception that many participants are not as capable to take on the role of technologist or course designer, if it were not for the institutional-specific roles of instructional designers.

Technologist Roles

According to Aydin (2005), the technologist's role is primarily focused on making technological choices that enhance the learning environment available to students (p. 59). This sentiment is echoed by Williams (2003), who emphasizes the need for faculty members to possess knowledge of computer hardware and skill in navigating the Internet to produce effective instruction (p. 53). When asked about their technology self-efficacy, most participants replied that they felt confident in their ability to navigate the LMS. When asked about their technical knowledge (i.e., computer hardware and Internet skills), participants spoke of relying on instructional designers or technical support for any issues that would arise. For example, I asked many participants the probing/follow-up question if they felt knowledgeable enough to post an announcement email in their LMS, to which many affirmed they did. However, when asked if participants felt confident in repairing an incorrect question in a quiz in the LMS, most participants shared that they were *not* confident. One participant even stated that they would refer that issue to the "[LMS] specialist". This response demonstrates a superficial confidence in technological abilities.

Course Designer Roles

Intertwined with the technologist role, faculty members are also expected to inhabit the role of course designer. Goodyear et al. (2001) characterized the designer role as being focused on creating meaningful online learning tasks that not only engage students in the virtual environment but also fulfill the stated learning objectives for the course (p. 69). Williams (2003) expanded on this definition by suggesting that course designers should possess a thorough understanding of general education theory, media attributes, Internet tools, and Web-related programming skills (p. 53). While participants did reference course design in their interviews, only four participants conceptualized course design with technology in their responses. For

example, Participants Nine and Three discussed course design in conjunction with delivery in the LMS; Participant Two and Ten discussed their communication strategies with students in conjunction with the LMS and course delivery. For other participants, course design was viewed more as the creation of learning objectives and the gathering of course content (i.e., articles, textbook, and videos). With this perspective, there is no differentiation in course delivery and how creation of space for meaningful online course engagement. Instead, other participants relied on the instructional design partnership to conceptualize what course delivery should look like on an online platform, as opposed to using knowledge from their face-to-face classes.

When it comes to these competencies, there is a lack of consideration for the transfer of both skill-building and contextual knowledge among the participants. In different institutional settings, these individuals may encounter difficulties applying these skills and competencies to their online courses. Nevertheless, their current institutional environment provides them with resources that enable them to overcome such barriers and develop their confidence.

Research Question 3: How do faculty who have completed the training envision continued engagement, support, and professional development regarding online teaching?

In an effort to assess future needs of online faculty members, this study asked participants several questions regarding their future development in teaching. While participants feel very able and confident in aspects like instructor presence and communication, participants did identify other areas of concern, such as handling academic dishonesty and meeting student welfare concerns. In order to fully answer the third research question of this study, I have categorized my analysis of hose faculty members envision professional development into two themes: that which supports the growing labor intensity of online teaching, and that which has more context for their teaching situations.

Supporting Labor Intensity

In their narrative interviews, participants shared aspects worrying them or concerning to them, such as student academic dishonesty, working with students through welfare issues, and continuing to manage faculty responsibilities as online course enrollment grows. This theme is most evident when participants spoke of their successes in online teaching and aspects participants will not implement in future online courses. For example, Participant Six stated that they worry they cannot the quality and consistency of attention to individual students as their class sizes get larger. Participant Fourteen shared that they are beginning to show signs of burnout with grading and emailing.

The concerns that participants voiced in their narratives echoed what is also stated in literature. Several studies have indicated that online teaching's course design and instructor presence aspects take up a significant amount of faculty members' limited time dedicated to teaching (Jaschik & Lederman, 2020; Mansbach & Austin, 2018; Stickeny et al., 2019). To address the perception of monopolization, educational institutions can provide training resources, instructional designer assistance, and/or financial incentives to instructors for online teaching. Additionally, research has shown institutions that grant more instructor autonomy in course design are more likely to report job satisfaction from those instructors (Mansbach & Austin, 2018; Stickeny et al., 2019).

Contextual Connections

Another aspect that participants are seeking within their professional development are context-specific demonstrations and practices that explicitly apply to their discipline or audience. This theme manifested specifically when I asked participants about any remaining self-doubt or pedagogical gaps related to online teaching. For example, Participant Two wanted more training

that connected to the realities of teaching undergraduate students in large class settings; with the online training (and all professional development they had received thus far), Participant Two feels they have not encountered a professional development opportunity that truly understood the nuances and intricacies of teaching online in an undergraduate setting. Similarly, Participant Three feels that many online teaching professional developments are too broad and don't consider specific disciplines, like their discipline of humanities, in an online context.

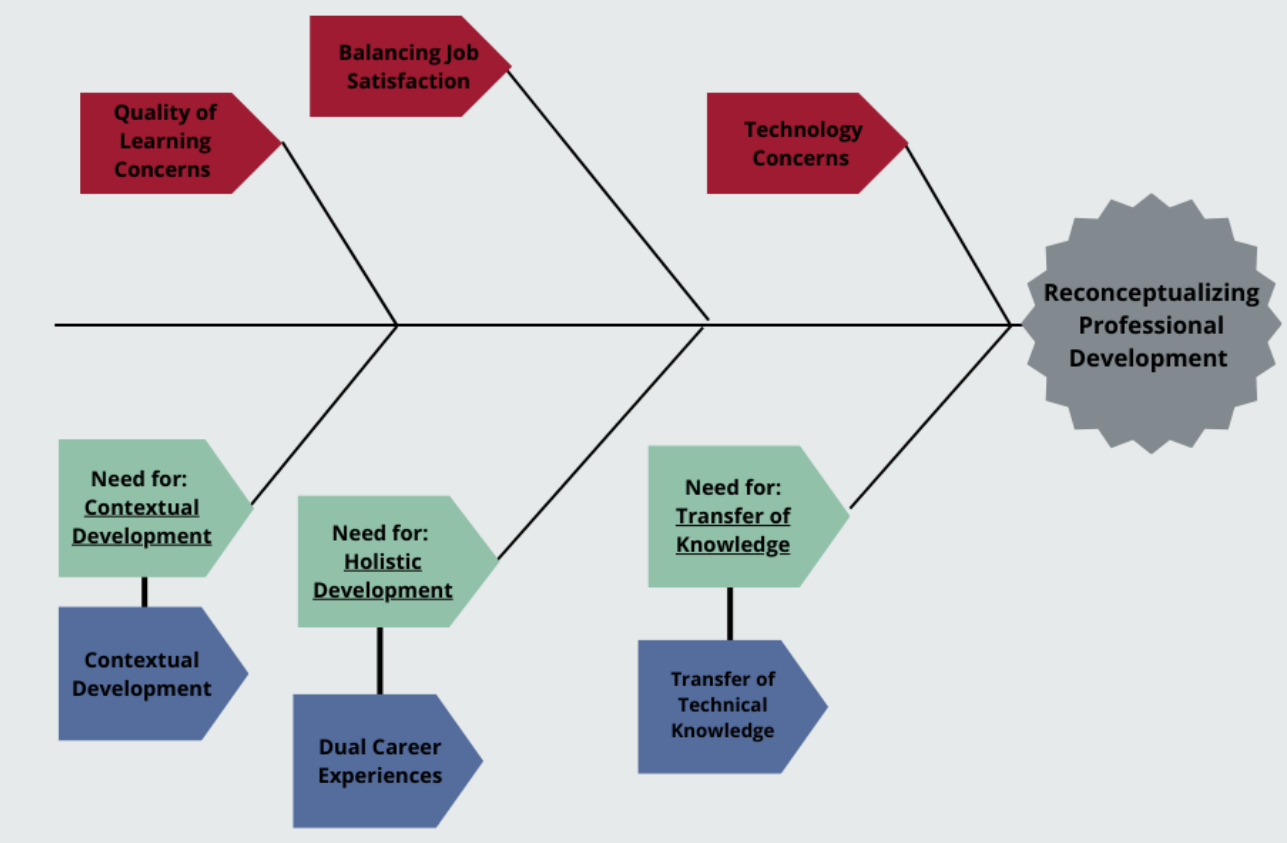
These concerns shared by participants over lack of subject-specific context in professional development can also be found elsewhere in literature. Jaramillo-Baquerizo et al. (2018) conducted a mixed-method study to investigate the design structures of 12 professional development programs across different institutions. The study revealed that many participants expressed a belief that the training programs did not meet their specific discipline-needs (Jaramillo-Baquerizo et al., 2018). Consequently, the teachers in the study found it challenging to relate the training material to their personal context and apply the knowledge gained to their professional practice. Another study by Fabriz et al. (2021) found that faculty development studies typically only offer "subject matter and specific content from the program" (p.740). According to Fabriz et al. (2021), faculty development programs that focus solely on skill-building fail to account for the contextual knowledge and environment of the faculty member, as well as the quality of learning and job satisfaction. Consequently, these studies suggest that a more inclusive framework is required to ensure the effective transfer of skill knowledge while taking into consideration the unique needs of instructors in the context of their institution and college courses. Without context of the individual, institution, or audience, faculty members cannot account for full immersion of the teaching practice and thus perceived barriers of online teaching are allowed to persist.

Theory Development

An analysis of the findings in this study led me to develop new aspects and considerations of the teacher self-efficacy model, as it applies to online teaching in a higher education setting. Specifically, I identified three new aspects or considerations. My proposal for the reconceptualization of teaching professional development for faculty in higher education considers not only teacher self-efficacy, but also the contextual development of faculty members' skills and evolving online classroom, their dual career experience, and the transfer of technology knowledge. A concept map of these theoretical additions is pictured in Figure 5.2, specifically in the blue boxes.

Figure 5.2

Concept Map of Theory Contributions



Contextual Developments

In analyzing the findings of this study, participants perceived pedagogical gaps in their online teaching due to a lack of contextual connections to the evolving classroom. Participants in this study were enrolled in an online training program that covered topics such as technology skills, course design, exploring institutional policies, developing course communications and presence, pedagogical knowledge, and learner assessment. However, in this online training (and in other professional developments participants have experienced), participants are not prepared to infuse the skills learned in these professional development opportunities with the "realities" of online teaching. Online learning is becoming more and more popular, meaning that course sizes will be increased to match the demand. With increased student enrollment and current faculty numbers, it will become more difficult to provide individualized attention and feedback to students, as well as administer communication to the overall class. Current best practices for time management, instructor presence, communication, and administration skills (as presented in current professional development) may no longer be sustainable in the future as the online classroom changes to include new student types and larger sections. By establishing new, contextual practices, perceived barriers to online teaching can be diminished. Topics for contextual development could include teaching large course sections, teaching humanities online, and student engagement topics. In order to establish new best practices, it is imperative for those responsible for faculty professional development to connect with the evolving online classroom and consider the contextual needs of faculty members.

The Incorporation of Dual Career Experiences

As faculty members in this study narrated changes in their teacher self-efficacy, most participants referred back to their transitions from their professional career to their academia.

This mid-career transition is more common among faculty members of various rank and appointment, according to national data, rather than joining academia with no professional experiences. As a result, faculty members, as reflected in this study, face teaching related challenges as they transition to their faculty positions. Incorporating professional development opportunities for teaching earlier in a faculty member's transition or providing contextual examples or experiences to help faculty understand the transition from industry to teaching, can assist in overcoming the challenges and barriers faced by faculty.

The Transfer of Technical Knowledge

In order to levy a successful online course, *technology* knowledge is needed by instructors, as well as content knowledge and other abilities. According to research, instructors do not need to possess knowledge of high-level HTML coding but need to possess enough knowledge of the LMS platform and design to trouble shoot technical issues with students and remedy issues within the LMS course section (Varvel, 2007). Within this study, participants expressed that they did possess technical knowledge and capabilities; however, within the context of the site institution, that technical knowledge came from the campus relationship with instructional designers. It is this contextual relationship that many participants rely on to build technical aspects of courses, such as quizzes and refer students to these partners if aspects of the course are “not working”. While this contextual relationship works for participants in this institution and with access to this partnership, there does need to be a more integrated transfer of technology knowledge if a faculty member no longer works at this site institution. This site holds a Carnegie classification of a Very High Research Institution, which roughly translates to higher number of resources available to faculty, including instructional designers (Jaramillo-Baquerizo et al., 2018; Trammel & LaForge, 2017). Irrespective of institutional type and resources, the

acquisition of technical knowledge is indispensable for all online teaching faculty to execute an online course, given that similar opportunities may not be available universally across campuses (Trammel & LaForge, 2017; Varvel, 2007).

Implications for Practice

In reviewing the participants' narratives and perceptions, this study offers important insights to fellow faculty members, and academic developers on how to improve teaching professional development opportunities for all faculty members, regardless of course delivery method. Some of those insights and implications for practices include detailed new faculty orientations, more "realistic scenarios" professional developments, more instructional design support, and smaller class sections.

Detailed New Faculty Orientations

A new faculty orientation is common practice for many institutions for incoming faculty, regardless of size and Carnegie classification. However, in many cases, this orientation often is a short span of time, does not cover enough teaching aspects, and is more heavily influences human resources policies (Bilal et al., 2011; Brewer, 2019; Broud & Brew, 2013; Gross, 2004; Klassen et al., 2011; Tang & Chamberlin, 1997; Tschannen-Moran et al., 1998; Smollin & Arluke, 2014). Participants in this study shared that having a more detailed or longer faculty orientation would be beneficial for incoming faculty in their transition to teaching from other industries. For this specific institutional site, some participants felt that requiring the online training would be a best practice for new online instructors as if offers beneficial, introductory skills and abilities. New faculty orientations can provide better preparation for online instructors to navigate online learning by allocating more time and dedicated sessions to teaching and pedagogical resources.

"Realistic Scenarios" in Professional Developments

For more seasoned online instructors, participants spoke to having professional development opportunities that were more contextual, specific, or "realistic" to their work. For example, participants identified needed assistance in providing detailed feedback for large class sections or balancing administrative responsibilities with their online teaching work. In order to continue supporting seasoned or more skilled online faculty members, there needs to be a reconceptualization of the current professional development to not only keep current faculty engaged but remain attuned to their needs. According to Broud and Brew (2013), faculty not only need practical skills of teaching but also need continual practice in "handling problems and developing work processes" in trainings, so that faculty members can relate tasks to their context (Broud & Brew, p. 216). This level of "embodiment" in trainings mirrors the level of "realistic" that participants in this study were seeking in their professional developments, where the whole person engages in practice, not just their intellect and skills (Broud & Brew, p. 212). With an "embodied" or "realistic" level of professional development, faculty members can conceptualize skills and task that vary based on complexity, time, and participant control.

Smaller Class Sections

Smaller class sections have been found to increase student engagement in an online setting, as well as lessen the labor of faculty members facilitating the course (Mansbach & Austin, 2018; Stickney et al., 2019). However, with the increased demand for online learning, the class section enrollment continues to climb (Aguilera-Hermida, 2020; Allen & Seaman, 2013; 2016; Jaschik & Lederman, 2020; Mansbach & Austin, 2018; Stickney et al., 2019). Participants echoed similar results from these studies, noting the growing class section enrollment and the subsequent strain on providing detailed feedback and performing other administrative duties.

Maintaining these smaller class sizes by reverting to original section caps, and hiring additional faculty to facilitate new sections, faculty members will be able to provide personalized attention and feedback to students in the online classroom, and overall job satisfaction among labor concerns will stabilize.

Increased Instructional Design Support

In creating online courses, it is crucial to have a course design that is understandable and appealing to the student audience. Instructional designers can provide faculty members support in providing organization and planning quality course content; the partnership with individuals in these roles have been found to increase job satisfaction among faculty members and enhance student learning outcomes in the online course (Mansbach & Austin, 2018; Stickney et al., 2019). However, depending on the instructional size and resources, not every faculty member has access to this support staff role, and as a result, some faculty members struggle to provide quality course content and meet student learning objectives (Jaramillo-Baquerizo et al., 2018; Trammel & LaForge, 2017). For this particular study, faculty participants greatly benefit from the instructional design partnership, and speak highly of job satisfaction due to the partnership. Expanding access to this invaluable resource across diverse institutional settings enables the achievement of multiple learning objectives and enhances faculty job satisfaction in online teaching.

Recommendations for Future Research

The scope of this qualitative case study was restricted to a single institution located in the Southeastern region of the United States. Additionally, participation in the study was contingent upon the completion of an online professional development course focused on teaching. To

further advance the understanding of teacher self-efficacy in teaching professional development, I suggest conducting additional research while taking the following aspects into account.

Different Institutional Types

This particular case study was conducted at an institution with a Carnegie classification of a Very High Research Institution. With this classification comes with more access to funds and resources that is not available to smaller institutions. One such example is having access to a large team of instructional designers, where other institutions may only employ one or none at all (Jaramillo-Baquerizo et al., 2018; Trammel & LaForge, 2017). Variances in institutional types and the provision of support roles for online faculty members could lead to varying outcomes and perceptions among faculty members.

Researcher Positionality

It is important to note that outside of my researcher identity, I am one of the instructional designers for this institution who works on similar courses that these faculty members described in this study. Additionally, instructional designers at this instructional work within the office that facilitates the online workshop for the campus. With this professional awareness and my researcher identity intertwined, I anticipated participant responses to indicate a positive relationship towards instructional designers in this institutional context. Therefore, it was necessary for me to include in my analysis that this specific campus partnership is unique to this institution; as a result, not all institutions will share the same results of this case study.

More Junior Faculty Participants

When contemplating their teaching experiences in higher education, the majority of participants reminisced about their initial years as a junior faculty member. Additionally, some participants in this study articulated that the online training provided by the institution should be

made mandatory for incoming new faculty. Due to the increased number of narratives around the early years of teaching as a faculty member, future studies may benefit from exclusively recruiting new faculty members for this type of study. By comparing and contrasting new faculty and seasoned faculty narratives, a richer analysis can be provided to educational developers.

Diversity between Undergraduate and Graduate Faculty

In cross analysis between participant narratives and interviews, I noticed that most of my participants taught at the graduate level, while two taught both undergraduate and graduate, and two taught exclusively undergraduate. While graduate faculty participants perceived their classes to be large at 15 to 20 students, the participants who taught undergraduate courses regularly had 175 to 200 students per semester. Therefore, I noticed differences between their responses versus others, especially pertaining to administrative and grading work. Notably, graduate faculty also has more responsibility pertaining to research, while undergraduate participants may not; this research aspect was outside of the scope of this study. However, it is recommended for future students to include more undergraduate faculty and include more conversations in relation to the balance between research and teaching responsibilities.

Conclusion

By conducting this qualitative case study on teacher self-efficacy among faculty members who teach online, I sought to describe and narrate changes in teacher self -efficacy from an online professional development training related to teaching online at an institution. The findings revealed that participants did not perceive changes in their teacher self-efficacy during the training, and rather narrated changes in their teacher self-efficacy early in the faculty careers; for most participants in this study, their careers began mid-life, as they transitioned from their professional fields to academia. This transition from industry to academia was marked with

challenges; to navigate these challenges, participants utilized such sources as instructional design partnerships, trial and error, and faculty collaborations to adjust to faculty teaching. Along the way, they mastered skills related to instructor presence and communication within an online course, such as maintain g an online discussion, supporting student success, and providing detailed feedback. By the time that faculty members did enroll in the online course, they found the professional development confirmed their practices and were instead seeking more contextualized and nuanced practices than this professional development program provided.

In these contextualized and nuanced practices, faculty are seeking to connect more deeply with the practice of teaching. By engaging in the act of teaching, faculty members are able to contextualize skills and tasks that differ in complexity, time requirements, and the level of control required by the participants. As faculty members gain a better understanding of teaching, their job satisfaction increases, and they perceive less labor in online teaching. Additionally, online student learning outcomes improve as a result of these enhancements in teaching.

The findings of this study can be utilized by educational developers at institutions of higher education to create more comprehensive resources for faculty members who engage in online teaching. By developing more detailed new faculty orientations, contextual professional developments, smaller class sections, and more instructional design support, online faculty members will be better prepared to navigate potential barriers in online teaching. Institutions must be proactive in providing support to faculty members who teach online as online enrollment continues to expand, in order to ensure positive student learning outcomes and retention. As an instructional designer and instructor, I am excited about the prospect of further research in the area of faculty teacher self-efficacy.

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APPENDIX A

SEMI-STRUCTURED INTERVIEW PROTOCOL 1

Topic: To explore the perceptions of participants and their training experiences, by asking questions related to perceived changes in teacher self-efficacy, such as their learned skills, motivation, and self-belief. This set of questions will relate the first research question of the study which is "How do faculty members who have completed the training describe or narrate changes in their teacher self-efficacy during the training?"

Interview Questions:

1. Tell me about yourself.
2. What discipline do you teach?
3. How many years have you been teaching online?
    a. What have been some of your previous experiences with teaching online at this university?
4. Why did you decide to enroll in this training?
5. In your experience with online teaching, can you tell me a little bit about the skills you possessed or developed in regard to online teaching?
    a. *If prompted- I can encourage the participant to think about technology skills, facilitation skills, mentoring skills, or course design skills.*
    b. Where did you learn those skills?
6. Within the training, what skills did you feel that you developed?

a. If you did feel you developed skills, can you describe the difference between before the training and after the training?

b. If you feel that you did not develop any skills, please explain why not.

i. *This is also where I would use the artifacts to stimulate memories.*

7. In your experience with online teaching, have there been aspects or moments of motivation for you as an online faculty member?
8. Do you feel your motivation changed as a result of this training?
    a. Why or why not?
9. In your experiences as an online teacher, did you feel confident in your online teaching?
    a. Why or why not?
10. Did you identify any changes in your self-belief or confidence within this module?
    a. Why or why not?
11. Do you feel like you are a more effective online teacher at the conclusion of this training?
    a. Why or why not?
12. Do you still continue to have self-doubt related to online teaching?
    a. Why or why not?

APPENDIX B

SEMI-STRUCTURED INTERVIEW PROTOCOL 2

Topic: To explore the perceptions of participants and their training experiences, by asking questions related to the perception of teacher self-efficacy within their online courses. This set of questions will relate to the second research question of the study, which is "How do faculty members who have completed the training describe changes in their teacher self-efficacy since the conclusion of the training?"

Interview Questions:

1. Since we last met, how have things been?
2. Can you tell me a little bit about what you online class this semester is about?
    a. So far this semester, how has your online course been going?
    b. If you have taught this course in previous semesters, how has this semester been in comparison to previous semesters?
3. (Course Design) In preparing for the course, how do you go about deciding which content and materials to place in the course?
    a. What specific strategies do you implement?
    b. To what degree are these strategies successful or not successful?
    c. Where did you learn these strategies?
4. (Course Design/Assessment) In course planning, can you describe which assignment or assessments have been most successful for your course?

a. What specific strategies do you implement?

b. To what degree are these strategies successful or not successful?

c. Where did you learn these strategies?

5. (Course Design/Technology) How would you describe you level of comfort in working with Blackboard to prepare for your online course?

    a. What specific strategies do you implement?

    b. To what degree are these strategies successful or not successful?

    c. Where did you learn these strategies?

6. (Instructor presence) At the beginning of the semester, can you describe how you introduce yourself and the course materials to the students?

    a. What specific strategies do you implement?

    b. To what degree are these strategies successful or not successful?

    c. Where did you learn these strategies?

7. (Instructor Presence/Facilitation) Throughout the semester thus far (or in previous courses), can you describe any instances where you have worked with students in a mentoring capacity?

    a. What specific strategies do you implement?

    b. To what degree are these strategies successful or not successful?

    c. Where did you learn these strategies?

8. (Policies and Procedures) Throughout your experiences in online teaching, can you describe any instances where you had to rely on the institutional policies and procedures for online learning?

    a. What specific strategies do you implement?

b. To what degree are these strategies successful or not successful?

c. Where did you learn these strategies?

9. How do you balance previous experiences with theories of online learning / teaching?
10. Do you feel that you used any experiences from the training to help inform your teaching-related decisions for that this semester?
    a. What experiences do you had you had in the training to help you in those decisions?
    b. If not, please explain.
11. Do you feel that there have been changes in your skills or strategies in your online teaching this semester?
    a. Why or why not?
12. Do you feel that there have been changes in your motivation this semester with online teaching?
    a. Why or why not?
13. Do you feel like you are a more effective online teacher this semester, as a result of the training?
    a. Why or why not?
14. Do you still continue to have self-doubt related to online teaching this semester?
    a. Why or why not?

APPENDIX C

ASYNCHRONOUS WRITING EXERCISE PROTOCOL

Topic: To explore the perceptions of participants and their training experiences, by asking questions related to the application of training skills within their online courses, after their online course has ended. This set of writing prompts are related to the third research questions, which is "How do faculty who have completed the training envision continued engagement, support, and professional development regarding online education?"

Prompts:

1. Describe how the semester was for you, in relation to online teaching.
    a. What were some wins and some challenges?
    b. What is one takeaway from this semester that you will implement in future semesters of online teaching?
    c. What is one aspect of this semester that you will not implement again in future semesters of online teaching?
2. Do you feel that you have autonomy over your course in content and teaching methods?
3. Are there any online teaching skills or teaching knowledge/pedagogical gaps that you are still seeking after the conclusion of this semester and this training?
4. Looking to the future, what opportunities of teaching professional development are you looking for?
    a. Do you envision these opportunities coming from inside or outside the institution?

5. In summary, after your experiences with online teaching and professional development for online teaching, how would you describe online learning in your own words?

Link to Qualtrics Survey:

https://universityofalabama.az1.qualtrics.com/jfe/form/SV_5gNly9DiBDJ7JHg

APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL

THE UNIVERSITY OF ALABAMA | Research & Economic Development
Office for Research Compliance

July 13, 2022

To: Elizabeth McDonald
[redacted]

From: [redacted]
Director & Research Compliance Officer

Re: **Notice of Approval**

IRB Application #:	e-Protocol 21-04-4495
Project Title:	"A Qualitative Case Study on the Faculty Perceptions of Professional Development and Their Teacher Self-Efficacy"
Submission Type:	New
Approval Date:	July 13, 2022
Expiration Date:	July 12, 2023
Funding Source:	None
Review Category:	Exempt
Approved Documents:	Informed Consent Document, Recruitment Flyer

Dear Ms. McDonald:

The University of Alabama Institutional Review Board has approved your proposed research. Therefore, your application has been approved according to 45 CFR part 46. Approval has been given under exempt review category 2 *as outlined below:*

(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

The approval for your application will lapse, as noted above. If your research will continue beyond this date, please submit the Continuing Review to the IRB as University policy requires before the lapse. Please note any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

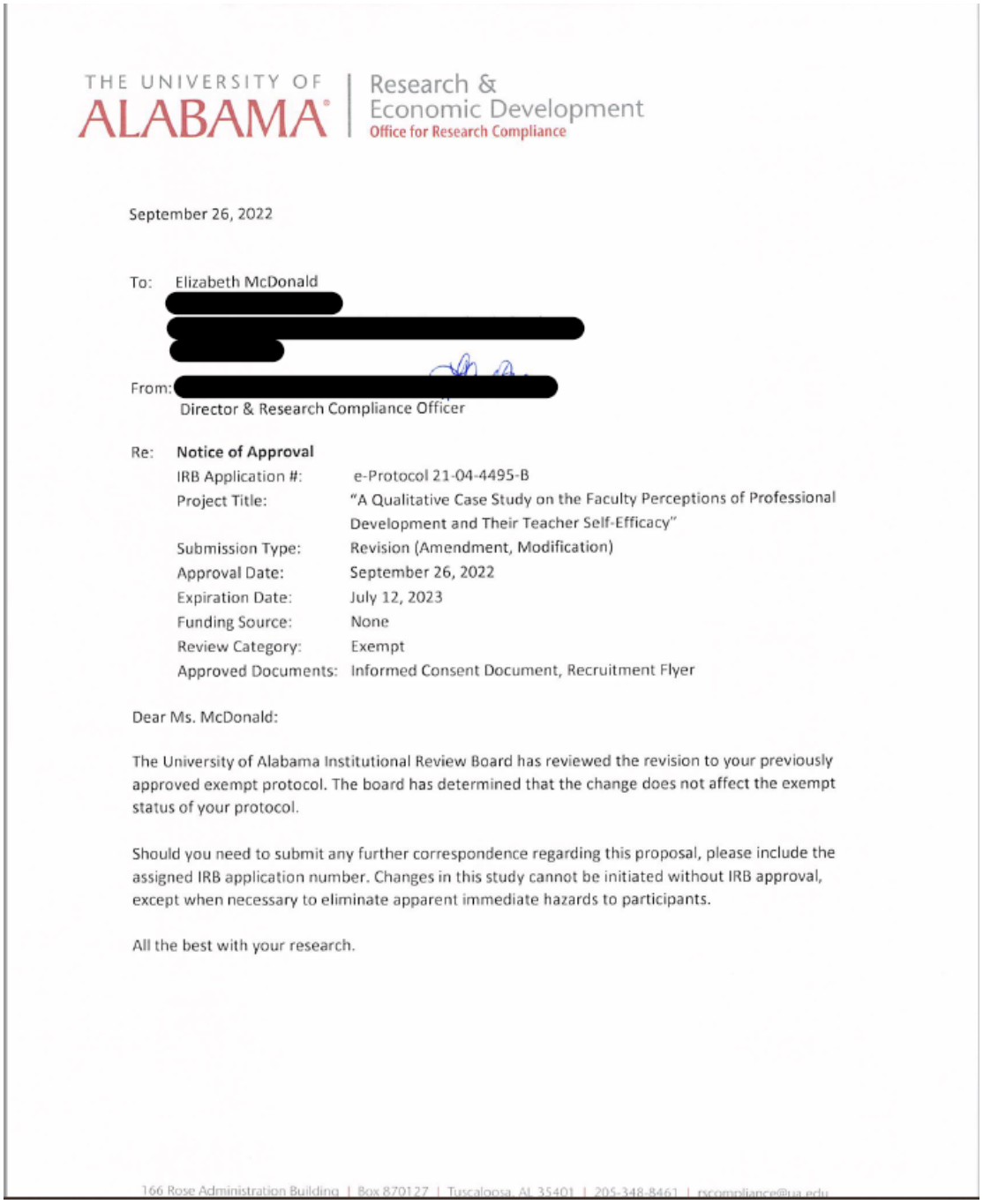
Please use reproductions of the stamped IRB-approved informed consent form to obtain consent from your participants.

All the best with your research.

166 Rose Administration Building | Box 870127 | Tuscaloosa, AL 35401 | 205-348-8461 | rscompliance@ua.edu

APPPENDIX E

INSTITUTIONAL REVIEW BOARD AMMENDMENT



THE UNIVERSITY OF ALABAMA | Research & Economic Development
Office for Research Compliance

September 26, 2022

To: Elizabeth McDonald
[redacted]

From: [redacted]
Director & Research Compliance Officer

Re: **Notice of Approval**

IRB Application #:	e-Protocol 21-04-4495-B
Project Title:	"A Qualitative Case Study on the Faculty Perceptions of Professional Development and Their Teacher Self-Efficacy"
Submission Type:	Revision (Amendment, Modification)
Approval Date:	September 26, 2022
Expiration Date:	July 12, 2023
Funding Source:	None
Review Category:	Exempt
Approved Documents:	Informed Consent Document, Recruitment Flyer

Dear Ms. McDonald:

The University of Alabama Institutional Review Board has reviewed the revision to your previously approved exempt protocol. The board has determined that the change does not affect the exempt status of your protocol.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants.

All the best with your research.

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