July 2021

Beyond the Program: A Case Study Evaluating the Learning Transfer of a Collaborative Online Course Development Program

Christie W. Nicholas

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Beyond the Program: A Case Study Evaluating the Learning Transfer of a Collaborative Online Course Development Program

by

Christie W. Nicholas

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education in Educational Program Development Department of Lang., Lit., Ed.D., Excep. Ed, and Physical Ed. College of Education University of South Florida

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Date of Approval:
June 15, 2021

Keywords: online learning, course development, collaborative course design, evaluation

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ACKNOWLEDGEMENTS

This dissertation was a labor of love and could not have been achieved without the support of my family, professors, colleagues, and friends.

I would first like to sincerely thank my four committee members, Dr. Sanghoon Park, Dr. Elizabeth Shaunessy-Dedrick, Dr. Sarah Kiefer, and Dr. Stephen Thornton for their continued support and feedback throughout the process. A special thanks to my major professor, Dr. Sanghoon Park, who provided me with incredible guidance, flexibility, and support along the way. It was an honor to have you on my committee. Your pursuit in pushing the boundaries of online learning is inspiring and I look forward to our continued work.

I would also like to express my gratitude to the faculty members who participated in this study. Not only did they allow me to understand their perspectives and experiences during and after the program, they did so amid a global pandemic. Without their willingness to share their feedback and expertise, this dissertation would not have been possible.

I would also like to thank my talented and creative team of learning designers, who continue to facilitate this impactful program day in and day out. Your ambition, creativity, and flexibility in working with our faculty partners not only inspired this work but directly contributed to its success. You have shown incredible resilience, especially during this past year, and it is a privilege to work alongside you every day. A special thanks to Christine Brown, my incredible boss and mentor, who was not only supportive of my work but intimately familiar
with the demands of writing a dissertation. Your advice, friendship, humor, and willingness to accept my quest for perfection played a major role in getting me to the finish line.

Finally, I would like to thank my family and friends for their continued support and understanding throughout the last four years. A special thanks to my mom, Jan, who supported me in every way possible--from late night conversations, to occasional meltdowns, to proofreading every last page. You have instilled in me a love of education and you continue to inspire me every day. Thank you to my dad, Blaine Sr., who always encouraged me to reach for the stars. Although he has passed on, I felt his presence often and know that he would have been proud of this accomplishment. To my brother, Blaine Jr., thank you for supporting me and tolerating my very long academic journey. I look forward to spending a lot more time with you. Lastly, the biggest thank you of all goes to my amazing husband, David. This dissertation is as much yours as it is mine. You have been nothing but supportive and encouraging throughout this entire journey and I would not have been able to complete it without you. There aren’t enough words to express my gratitude for each and every sacrifice you made in my pursuit of this degree. You are my favorite person and I love you to the moon and back.
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ABSTRACT

The primary purpose of this study was to evaluate a collaborative online course development program, Digital Learning Collaborative, utilizing the first three levels of Kirkpatrick’s training evaluation model. Although there is a growing body of research that supports collaborative models of online course design, there are few studies that evaluate these models and even fewer that consider the potential learning transfer to other teaching contexts.

With faculty being increasingly asked to teach in varying and dual modalities, it is necessary to evaluate online course development programs to understand how the skills and practices obtained within them can transfer to other courses and/or teaching practices. In this study, the first three levels of Kirkpatrick’s training evaluation model were conducted to understand how faculty perceive the program, what they learn as a result of the program, and how they transfer their learning to other teaching contexts. Evaluation data were collected from fifteen faculty participants in order to draw conclusions regarding their perceptions, learning, and transfer. Three data collection methods were used including questionnaires, semi-structured interviews, and ready-made design activity assessments.

Data analysis revealed that faculty participants had overall positive perceptions of the program, learned new learning design and online best practices and principles while participating in the program, and were able to transfer their learning to other courses they were designing and teaching, regardless of modality. Based on these findings, recommendations were made to assist higher education leaders, faculty, and learning design staff on the far-reaching benefits and
practical implications of collaborative course development programs and the critical importance of their design in facilitating learning transfer.
CHAPTER ONE:
INTRODUCTION

Online education has rapidly changed the landscape of higher education. Data from the national 2018 Grade Increase (Seaman et al., 2018) reveals that the percentage of higher education students enrolled in online courses has increased each year between 2012 and 2016. With more than six million students taking at least one online course (Seaman et al., 2018), attention must be given to the effective design and development of online courses.

Caplan and Graham (2008) argue that there has been a marked shift in online course development since the beginning of the twenty-first century. As technology evolved, so did the demands of online learners. Text-based courses not making use of multimodal opportunities were slowly being replaced by media-rich courses designed specifically for web-based platforms. This shift not only changed the way online courses were developed but took full advantage of the strengths of the Internet (Caplan & Graham, 2008; Means et al., 2014). Caplan and Graham (2008) argue that the Internet should not only be considered a medium for online delivery but as a partnership offering a new teaching paradigm, which creates the potential for fundamental changes in how we undertake teaching and learning.

While online or digital environments can afford meaningful opportunities for student-centered learning, it can also significantly alter the role of the instructor. Most higher education faculty do not have formal teaching or instructional design training and often rely on face-to-face teaching methods (Buckenmeyer et al., 2013). It is widely acknowledged that teaching online
requires new pedagogical, technical, and administrative skills (Buckenmeyer, et al., 2013; Caplan & Graham, 2008; Elliot et al., 2015; Xu & Morris, 2007). In fact, many faculty find that they need to play a more facilitative role in the online environment, which can be a significant departure from their existing teaching approach. To bridge these gaps, institutions have relied on learning designers to assist faculty as they navigate the transition to the online environment. Previous studies argue that learning designers, or those who design and develop online learning experiences in alignment with best practices in online pedagogy, should be involved in the course development process from the beginning to ensure that the design of the learning materials are stable and based on sound learning theories and principles (Caplan & Graham, 2008; Richardson et al., 2018; Ziegenfuss & Lawler, 2008). Learning designers play a major role in ensuring that selected technologies support and engage learners, and that the learning designs meet standards of quality and usability (Caplan & Graham, 2008; Ritzhaupt & Kumar, 2015; Rubley, 2016). It should be noted that in some cases, the terms instructional designer and learning designer have been used interchangeably. In this study, the terms “learning design” and “learning designer” are used to convey the importance of learning as opposed to instruction, which is typically associated with the instructor and how they convey learning materials.

Another issue when considering the design and development of online courses is quality. With more and more students moving to online settings, there has been a need to ensure that online courses are robust, well-designed, and meet standards of quality. Although there are a number of approaches to evaluate quality in online learning, most learning designers rely on a set of standards to assess quality and assist the course design of online courses (Martin et al., 2017). Although these standards can vary based on the accrediting body or institution, most emphasize course design best practices as opposed to instructional content or facilitation (Martin et al.,
2017). Within the context of this study, a high-quality online course refers to any online course that meets standards of quality.

Although there is a clear need for learning design support within the design and development process, there is no universal approach for supporting faculty with this complex endeavor. Some higher education institutions allow faculty to decide which courses to teach online and how to develop them, while others take a more strategic approach and provide a centralized model of support in which all development and training occurs (Herman, 2012). Although most institutions have been opting for centralized models, it is widely recognized that quality online courses require a highly organized and concerted effort from many players (Brigance, 2011; Caplan & Graham, 2008; Chao et al., 2010; Richardson et al., 2018; Scoppio & Luyt, 2017; Stevens, 2013; Xu & Morris, 2007).

Problem Statement

Although there is a growing body of research that supports collaborative models of course design, there are few studies that evaluate these models, and even fewer that consider the potential application to other teaching contexts. These contexts, which can include everyday teaching practices and other online, face-to-face, or blended courses that combine elements of both, are particularly relevant as faculty are increasingly being asked to teach in varying modalities. With nearly half of all faculty members teaching online and nearly 40% teaching blended (Jaschik & Lederman, 2019), the division between fully online and face-to-face instruction is becoming blurred. Therefore, it is even more important that course development programs are purposefully evaluated to understand if the skills and practices obtained within them can improve teaching in other settings. To meet the research need, this study was
conducted to evaluate the Digital Learning Collaborative (DLC) program based on the first three levels of Kirkpatrick’s training evaluation model (Kirkpatrick, 1994) including perception, learning, and transfer.

DLC is a unique program that combines the content and teaching expertise of a faculty course developer with the creative, design, and technical expertise of a learning designer. This highly collaborative effort leans on the support of videographers, multimedia developers, and faculty support specialists who work in partnership with the learning designer and faculty developer to reimagine and optimize learning in a digital space.

The DLC program is offered through an academic support unit at a preeminent state research university in the southeastern United States. It has been offered since 2014 and has resulted in the creation of more than 700 online courses. Although the program has successfully helped the university to grow its online portfolio, it has evolved over time based on faculty feedback, new technology, online pedagogies, emerging research, and statewide initiatives.

Until now, the impacts of DLC have primarily been examined through the lens of quality. Quality has always played a role within the program; however, in 2015, the Board of Governors (BOG) identified quality as one of the three primary elements in the 2025 Online Education Strategic Plan. The plan identified several quality-related goals, one of which being that 90% of online courses within the State University System (SUS) will bear a high-quality rating. This lofty goal eventually led to a statewide course design quality review process that relies on the Quality Matters (QM) Higher Education Rubric (Distance Learning and Student Services, 2020). QM is a nationally recognized organization that promotes and improves the quality of online education and student learning through the use of quality assurance systems and professional development (Quality Matters, 2021). QM’s Higher Ed Rubric, which is comprised of eight
general standards and 42 specific review standards, is used throughout the DLC program and guides many of the course design and development recommendations to faculty.

While quality is certainly one indicator of the program’s success, the effects of the program beyond quality are unknown. To maximize the benefits of the DLC program, there needs to be a better understanding of how faculty transfer what they learned to educational contexts outside of the program. Anecdotal evidence supports a change in the faculty member’s pedagogical beliefs upon program completion; however, the factors that potentially lead to these changes are also unknown. According to Buckenmeyer et al. (2013), faculty can experience pedagogical shifts after developing and teaching online courses and further evidence of this is supported in the 2018 “Inside Higher Ed Survey of Faculty Attitudes on Technology,” where the majority of faculty who taught online reported that the experience taught them skills that have improved their teaching (Jaschik & Lederman, 2018). Although an informal evaluation process has been implemented at the end of the DLC program, a more formalized evaluation will help to examine these issues and illuminate the factors that ultimately lead faculty to success.

**Purpose of Study and Contribution to Field**

The purpose of this study was to evaluate the DLC program based on the first three levels of Kirkpatrick’s training evaluation model (Kirkpatrick, 1994). This widely-used model, which includes four distinct levels of evaluation including perception, learning, transfer, and organizational outcomes, provided critical insight on the impact of the DLC program.

In this study, the first three levels of Kirkpatrick’s training evaluation model were employed to evaluate the DLC program. Because the fourth level of the model evaluates organizational outcomes, it requires not only full implementation of the program long-term but
also time and resources to identify a strong return on investment at the organizational level. Although Level 4 extends beyond the scope of this study, special attention was paid to Level 3 of Kirkpatrick’s training evaluation model, which evaluates the extent to which participants transfer their learning from the program to other teaching contexts. This study was built on prior research pertaining to online course development and specific approaches to collaborative course design (Buckenmeyer et al., 2013; Chao et al., 2010; Xu & Morris, 2007; Ziegenfuss & Lawler, 2008).

The findings in this study are expected to offer evidence-based implications for learning design staff, higher education leadership, and faculty seeking practical solutions to improve their teaching practices. Not only does this study provide practical significance to the field of learning design but also serves as a model for other institutions seeking effective approaches to online course development.

**Research Questions**

This study evaluated the DLC program from three different aspects including perception, learning, and transfer, which reflect the first three levels of Kirkpatrick’s training evaluation model. An explanatory single-case study approach was used to gain an in-depth understanding of the DLC program and the implications to faculty teaching practices. Therefore, the following questions guided this study:

**RQ1:** How do faculty participants perceive the DLC program?

**RQ2:** What do faculty participants learn as a result of the DLC program?

**RQ3:** How do faculty participants transfer their learning to other teaching contexts?
CHAPTER TWO:
REVIEW OF LITERATURE

As this study sought to understand how a specific online course development program impacts faculty teaching practices, it was imperative to examine the existing literature in an effort to understand the current state of online learning and online course development. This chapter provides context for the current study by identifying key definitions and trends, relevant theories, and gaps in research, which ultimately revealed why additional research was needed in the evaluation of collaborative course design models.

Online Learning

Whether it is due to improved student access, higher degree completion rates, increased competition between universities, or simply appealing to a wider population, it is clear that online learning has become a part of mainstream higher education and continues to evolve. One ongoing debate centered around the field is the extensive variation of practices that are referred to as “online learning”. In this study, “online learning” refers to a “learner’s interaction with content and/or people via the Internet for the purpose of learning” (Means et al., 2014). Online learning is a more narrow term than “distance learning,” which simply implies that the learner and instructor are physically separated. Means et al. (2014) argue that online learning should be viewed as a subset of distance learning as opposed to a synonym of it. Although the vast range in online learning practices make the field particularly difficult to summarize, the Babson Survey
Research Group utilizes proportions of course activity as a baseline for describing online courses (Allen et al., 2016). According to Allen et al. (2016), an online course typically presents 80% or more of its content online while other alternatives such as traditional, web-facilitated, or blended/hybrid courses present different variations of these proportions.

Effective online learning is the result of careful design and planning, which relies on a systematic model for design and development (Branch & Dousay, 2015). This characteristic is particularly important to acknowledge within the context of this study as it was conducted during the COVID-19 pandemic. This sudden and unprecedented shift forced institutions around the globe to rapidly adapt to remote teaching and learning in order to mitigate the spread of the virus. Although COVID-19 is not the aim of this study, there is a need to clarify the critical difference between online learning and “emergency remote teaching (ERT)”

In contrast to experiences that are purposefully planned and designed to be online, ERT refers to a temporary shift of instructional delivery to an alternate mode due to circumstances of crisis (Hodges et al., 2020). The main goal in these circumstances is not to create educational ecosystems but rather to provide temporary access to instruction during an emergency (Hodges et al., 2020). Although there is a pointed difference between these terms and this study is centered around the former, it is important to acknowledge COVID-19 and the role it played within the research setting of this study, which is further discussed in Chapter 3.

**Enrollment Trends and Attitudes**

Overall enrollments in higher education have been facing a downward trend. Although COVID-19 has further contributed to this decline (McKenzie, 2020), there has been one area of continued growth—online education. Online enrollments have been steadily increasing each
year between 2012 and 2016, from 25.9% to 31.6% (Seaman et al., 2018). Although there has been an overall growth in online enrollments, year-to-year changes have been uneven between the higher education sectors. Public institutions enroll nearly 70% of all online learners while private non-profit and private for-profit institutions enroll 31% of online learners combined (Seaman et al., 2018). Online enrollments are also concentrated to a relatively small number of institutions with almost half of all online students concentrated in only 5% of institutions. Furthermore, online education is becoming more localized. Seaman et al. (2018) found that the proportion of students taking online courses exclusively, who are located in the same state as the institution offering the courses, has increased every year, rising from 50.3% in 2012 to 56.1% in 2016.

There has also been a slight shift in the number of institutions reporting that online learning is critical to their long-term strategy. Data from the national 2016 Online Report Card (Allen et al., 2016) show that while a large majority of institutions report that online learning is critical to their long-term strategy, there was a fairly significant drop among the smallest institutions. Allen et al. (2016) found that the institutions that offer online courses are still positive about their approach, but those who have no online offerings are no longer saying that it will be part of their future plans.

**Faculty Perceptions of Online Learning**

Online learning tends to elicit strong views both positive and negative. Although research has shown that online learning can be effective (Means et al., 2014), negative perceptions still exist. With the recent transition to ERT, it might be tempting to compare that experience with the purposeful nature of online learning, especially for those who were already
on the fence. But the fact of the matter is those who made the sudden transition online for academic continuity during COVID-19 were not fully taking advantage of the possibilities of the digital environment (Hodges et al., 2020).

Despite the continued increase of online enrollments in higher education, there has been little change in faculty perceptions. Although some faculty express enthusiasm about increased student access and consider themselves early adopters of educational technologies, others remain skeptical (Allen et al., 2016; Jaschik & Lederman, 2018; Mansbach & Austin, 2018). Data from multiple national surveys found that while the number of faculty who teach online continues to increase, only a small portion report that they accept the value and legitimacy of online learning (Allen et al., 2016; Jaschik & Lederman, 2018), which can ultimately impact adoption. However, there is a strong correlation between the reported level of acceptance among faculty and the number of online learners at that institution. In the Online Report Card, Allen et al. (2016) found that faculty at institutions with larger numbers of online learners are more accepting of online learning.

**Concerns underlying negative perceptions.** As student demand for online learning continues to rise, online teaching is becoming a larger part of the faculty role. Therefore, it is important to discuss some of the concerns underlying negative perceptions of online learning. These concerns, which are well-cited throughout the literature, can generally be categorized by instructor-related concerns, student-related concerns, pedagogy-related concerns, and institution-related concerns.

**Instructor-related concerns.** First, there is a growing concern surrounding instructor-related issues, mostly pertaining to technology. These concerns primarily include faculty members’ anxiety about their own technological skills in addition to inadequate technological
training and support (Hunt et al., 2014; Jaschik & Lederman, 2018). Although faculty members remain cautious about technology, a recent report shows that 33% of faculty describe themselves as “early adopters” of new educational technologies and 55% say they typically adopt technologies after seeing their peers use them effectively (Jaschik & Lederman, 2018). Faculty who support the increased use of educational technologies point to three factors that underly their support including “their desire to experiment with new instructional methods and tools, past success with using it, and a belief that students learn better when they are engaged with effective technology” (Jaschik & Lederman, 2018, p. 20).

**Student-related concerns.** Student-related concerns include limited interaction with peers and instructors, effectively serving students with disabilities, poor quality courses, and difficulties in attending to student needs (Hunt et al., 2014). Data from faculty who participated in the 2017 “Inside Higher Ed Survey of Faculty Attitudes on Technology” (Jaschik & Lederman) provide further evidence of these concerns. A large majority of faculty perceive online courses to be less effective than face-to-face courses in terms of interaction and the ability to reach at-risk students (Jaschik & Lederman, 2017).

**Pedagogy-related concerns.** Pedagogy-related concerns include faculty members’ uncertainty about the lack of flexibility in making changes to their courses, the lack of time to develop and manage their courses, and the lack of opportunities to design their courses to meet the intended learning outcomes (Hunt et al., 2014). Similar skepticism is also reported in the 2018 “Inside Higher Ed Survey of Faculty Attitudes on Technology,” where 36% of faculty members disagreed that online courses produce the same learning outcomes as face-to-face courses. Although faculty are divided on the outcomes of online and face-to-face instruction,
faculty with online teaching experience are generally more positive than those without online teaching experience (Jaschik & Lederman, 2018).

**Institution-related concerns.** Faculty are also concerned about institutional-related issues including inadequate institutional support and issues over intellectual property rights (Hunt et al., 2014). Another concern is the lack of credit for teaching with technology in regard to tenure and promotion decisions, which was cited across multiple studies (Betts, 2014; Cook et al., 2009; Jaschik & Lederman, 2017; Jaschik & Lederman, 2018). In fact, only 24% of faculty who responded to the 2018 Inside Higher Education survey agreed that they were rewarded for teaching with technology (Jaschik & Lederman, 2018). Other institutional-related concerns include fair compensation for online course development and teaching, and the lack of acknowledgement of time demands for online course workloads (Betts, 2014; Cook et al., 2009; Jaschik & Lederman, 2017).

**Positive perceptions.** Despite these well-cited concerns, 74% of faculty who have taught online courses say that the experience has taught them skills that have improved their teaching, both online and face-to-face. Most commonly, faculty reported that teaching online helped them to think more critically about ways to engage students with content, make better use of multimedia, make better use of the learning management system (LMS), and experiment and make changes to improve the learning experience for students (Jaschik & Lederman, 2018).

Since there is a strong correlation between the level of acceptance among faculty and the number of online learners at their institution, it is not surprising that positive perceptions are also related to levels of experience. Hunt et al. (2014) found that those who have online teaching experience were more motivated by flexibility in delivery, personal interest, financial stipends, reassigned time, opportunities for innovation, and meeting student needs. On the other hand,
inexperienced online faculty were more concerned about their lack of technological skills, and the lack of training provided by their institution (Hunt et al., 2014).

Overall, research suggests that the most highly ranked motivators of online teaching are closely linked to student needs (Hunt et al., 2014). Bolliger and Wasilik (2009) observe that of the three factors that affect faculty satisfaction in the online environment, student-related aspects such as increased access to courses, were most important regarding their overall satisfaction. Similarly, Betts (2014) found that reaching students who cannot come to campus was one of the top five motivators for faculty along with personal motivation to use technology and overall job satisfaction.

This section has reviewed enrollment trends and attitudes of online learning including the perceptions of faculty, who demonstrate a wide range of reactions. While there is a growing body of research in this area, it is clear that having online teaching experience plays a major role in faculty perceptions of online learning. Since perception is tied to experience, institutions should provide support that empowers faculty and promotes experience in order to ensure a successful transition to the online environment.

**Training and Support for Online Instructors**

Online learning is no longer on the peripheral landscape of higher education. With 44% of faculty now teaching online, training and support have become increasingly important (Jaschik & Lederman, 2018). The value of this support cannot be overstated as most faculty have extensive training in their academic discipline, but little to no training in the pedagogical approaches to teaching. Because most instructors tend to teach as they were taught and have little experience as online students themselves, they may find themselves without an appropriate
model or benchmark for teaching online (Baldwin, 2019; McKee & Tew, 2013; Schmidt et al., 2016).

**Instructor Needs**

Online teaching is a vastly different experience than teaching face-to-face (Berry, 2018; Buckenmeyer et al., 2013; Elliot et al., 2015; Xu & Morris, 2007). It is not a simple transfer of content from one modality to another. In fact, most faculty members cannot be expected to intuitively know how to design and facilitate effective online courses (Palloff & Pratt, 2001). Many instructors who are new to the online environment make comparisons to what they already know, which is typically a traditional classroom (Schmidt et al., 2013). Baldwin (2019) also observed this pattern and found that instructors adapt to the online environment by using strategies that mimic elements of face-to-face courses: “in essence, adaption comes through assimilation” (p. 195). Since faculty make comparisons to previous teaching experiences, professional development programs should tap into this knowledge and seek to build upon these experiences.

Online faculty have unique needs for professional development. Although they usually require training in both technology and pedagogy, an exploratory study by Bigatel et al. (2012) revealed that instructors need various competencies in the areas of active learning, active teaching, multimedia technology, and classroom management. Data from this study showed that faculty participants felt that all of these areas were important and needed to be addressed within professional development programs (Bigatel et al., 2012). Another related study, which utilized a panel of experts to identify best practices for online faculty professional development, identified the following topics to help faculty prepare for online teaching: faculty roles (e.g. creating instructor presence, connecting to online students), classroom design (e.g. planning,
structuring, and organizing an online classroom), learning processes (e.g. writing measurable course objectives), and understanding legal issues (e.g. copyright compliance, and Americans with Disabilities Act (ADA) compliance guidelines) (Mohr & Shelton, 2017). These studies demonstrate the wide range of skills needed to teach online courses. As the demand for online learning continues to grow, it is important for institutions to support faculty in ways that are conducive to their needs.

**Program Types**

Higher education institutions have implemented a range of professional development programs; however, the form and extent of this support varies widely. In *Learning on Demand*, Allen and Seaman (2009) found that there is no single approach in providing training for faculty who teach online. Instead, institutions adapt programs to fit their own contexts, which ultimately creates a much larger variety than actually reported in the literature (Herman, 2012). In a study of 821 institutions, Herman (2012) identified the frequency and variety of professional development programs available to online instructors. Twenty-five types of professional development programs were identified including self-teaching, peer mentoring, collaborative course design, workshops, and online trainings. Among these program types, Herman (2012) found that over 90% of institutions offered a website or course management site with online resources, 89% offered a technical service, and 87.8% offered books, journals, and other printed materials related to online instruction. Another type of program offered by over 66% of institutions is collaborative course design or “ongoing mentoring and individualized support during the design of an online course” (Herman, 2012, p. 94). Because this form of professional
development will be the primary focus of this study, it will be discussed at length in the following section.

Faculty development programs can generally be classified by their activities and content. For example, faculty development activities can range from formal events such as workshops or webinars to informal events such as one-on-one trainings. Activities can be further delineated by the mode in which they are offered such as face-to-face, online, synchronous, asynchronous, recurring, etc. (Elliott et al., 2015). In a national study of training content and activities for faculty development, Meyer and Murrell (2014) found that six activities were used by 90% of the participating institutions including workshops, one-on-one trainings, short sessions, hands-on trainings, online course creation, and one-time sessions. Their study also revealed that assessment of student learning, creating community, training on the institution’s learning management system, student learning styles, and learning design models were in the majority of the reported content for faculty development programs (Meyer & Murrell, 2014).

**Faculty preferences.** Although there are a variety of professional development programs available, it is important to consider the mode of learning most preferred by faculty. One descriptive study exploring faculty preference for mode of delivery indicated that faculty strongly prefer working one-on-one with learning design experts for learning about technologies, how to accomplish tasks in the online environment, and learning about instructional strategies and assessment ideas (Grover et al., 2016). This finding is also supported by Lackey (2011) who observed that faculty often seek personalized assistance while teaching online. Another preferred mode for professional development is online resources. On-demand resources such as “how-to” instructions are particularly useful for part-time instructors or instructors who may not be able to attend face-to-face trainings (Grover et al., 2016). Faculty also indicated a strong
preference for informal interactions with colleagues who teach online (Grover et al., 2016). A similar finding was reported by Bouwma-Gearhart (2012), who found that faculty participants in a STEM-focused professional development program were highly motivated by building connections with others who were interested in issues of teaching and learning.

**Relevant Theories and Models**

Although the need for faculty development is well-cited throughout the literature, there is far less research devoted to the theories that undergird these professional development programs. Theories play an important role in research and provide a lens for viewing phenomena. Although the trend in the development of faculty-driven programs seems to prioritize practice over theory, it is still important to understand which theories are most relevant and how they are used within these contexts. One of the first national studies that investigated the theories that support faculty development trainings found that 72% of organizations relied on learning style theory, 69% relied on adult and self-directed learning, 64% relied on experiential learning, and 59% relied on andragogy (Meyer & Murrell, 2014). It is fairly surprising that a large majority of faculty development programs cited learning style as the primary theory that supports their programs. Learning styles have received a lot of criticism over the years due to the lack of empirical evidence. Numerous researchers have pointed to major problems with this theory including a lack of a clear framework, problems with measurement, and a failure to connect learning styles to achievement (An & Carr, 2017; Kirschner & Merriënboer, 2013; Meyer & Murrell, 2014).

Perhaps not surprising is that nearly 70% used adult learning theories to support their programs (Meyer & Murrell, 2014). Because faculty are adult learners themselves, it makes
sense that these theories and related principles support a large majority of professional development programs.

**Adult learning theory and andragogy.** Malcolm Knowles’ first book on adult learning theory was published in 1950 (Halpern & Tucker, 2015). Working on the assumption that adults were not afforded the opportunity to be self-directing, Knowles began devising alternative models for adult learners. His work now includes six assumptions that comprise the principles of his andragogical model including the need to know, the learners’ self-concept, the role of the learners’ experiences, readiness to learn, orientation to learning, and motivation (Knowles et al., 2014). Although andragogy can assist educators to better understand adult learning, these assumptions are not an exhaustive list and should be considered as a set of principles that apply to most adult learning situations (Arghode et al., 2017; Halpern & Tucker, 2015). Andragogy, a model within the theory of humanism, assumes that adults are self-directed, learn through experiences, and want immediate application. Practical implications of these assumptions involve designing instruction to provide unique learning opportunities and allowing flexibility for learners to learn at their own pace (Arghode et al., 2017).

**Collaborative learning.** Since many institutions are opting for team-based approaches to online course design, it is no surprise that collaborative learning is an approach being used to support this effort. Collaborative learning is a broadly used term describing a variety of educational approaches involving joint intellectual efforts by a group of people (Smith & MacGregor, 1992). Typically used to describe students or students and teachers working together, collaborative learning is focused on exploration or application of material; therefore, it has particularly strong ties to the context of transfer. Collaborative learning assumes that learning is an active process dependent on rich contexts, diverse learners, and social settings.
Rather than beginning with facts and ideas, collaborative learning activities typically start with problems, which challenge learners to develop higher order problem-solving skills (Smith & MacGregor, 1992). This approach is particularly well suited to online course development as it is widely acknowledged that this process requires specialized skills, experience, and knowledge from various people working together (Brigance, 2011; Chao et al., 2010; Richardson et al., 2018; Scoppio & Luyt, 2017). Although collaborative course design practices and models will be further discussed later on, it should be recognized that all of these approaches are rooted in the construct of collaborative learning.

**Learning design models.** Meyer and Murrell (2014) observed that over half of the institutions reported using learning design models to support their programs. Typically, these models provide conceptual tools for course designers to visualize and manage processes for creating quality teaching and learning materials (Branch & Kopcha, 2014). The Analysis, Design, Develop, Implementation, and Evaluation (ADDIE) model of instructional design, which is a widely used instructional design framework, received the most mentions followed by several quality-related rubric standards such as QM. The researchers also investigated the extent to which these theories are incorporated into the training itself and found that institutions strongly prefer to utilize principles of good practice over theories of learning or research pertaining to online learning (Meyer & Murrell, 2014). This finding shows that institutions prioritize skill over theory when training faculty to teach online. Institutions also reported that it was more important for faculty to understand pedagogies of online learning and principles of good practice rather than research and models of online learning (Meyer & Murrell, 2014).

This section provided an overview of the theories, approaches, and design models that commonly support professional development programs. Although it is evident that most
institutions rely on best practices as opposed to theories of learning, it should be acknowledged that the program in this study is no exception. In fact, the course design model employed in this study, which is further detailed in Chapter 3, is heavily influenced by the ADDIE model of instructional design and collaborative learning/problem solving.

Learning Design in Higher Education

Between the rise of online learning and the shifting roles of online faculty, it is evident that there is a need to support instructors through pedagogical solutions, online course design, and technology integration (Brigance, 2011; Rubley, 2016). This support emphasizes the expanding role of learning designers in higher education who work with faculty to devise media-rich learning environments. With expertise in learning technologies, learning design models, and learning theories, learning designers can assist faculty in adapting their strategies to the online environment (Brigance, 2011; Kumar & Ritzhaupt, 2017). In fact, new strategies for teaching and learning using a range of technologies have resulted in a growing demand for learning designers who can create and implement these evidence-based solutions (Intentional Futures, 2016; Rubley, 2016).

Although the field of learning design emerged as a result of skill-based military training during World War II, it did not have a significant presence in higher education until the early 1990s (Chao et al., 2010). Definitions of the field have evolved over time as new innovations have impacted practice. Today, most definitions recognize learning design as a systematic process involving the use of technological resources. In the current study, the researcher has adopted Reiser and Dempsey’s (2011) definition of learning design as “the analysis of learning and performance problems, and the design, development, implementation, evaluation and
management of instructional and non-instructional processes and resources intended to improve learning and performance in a variety of settings, particularly educational institutions and the workplace” (p. 5). This definition was used as it considers learning design from a holistic perspective and is widely accepted in the field of instructional technology. Over the past three decades, learning designers have had to redefine their roles, adapting to new technologies and working closely with faculty to rethink their approaches for the online environment (Chao et al., 2010; Kumar & Ritzhaupt, 2017).

Learning designers are process-oriented and can apply systematic, research-based design to any discipline. Although the role of a learning designer can be quite dynamic, it is often dependent on the context of the institution and whether they work in a centralized or decentralized unit (Intentional Futures, 2016; Maitre & Smith, 2009). Primary responsibilities of learning designers include working with faculty to plan, design, or revise new and existing courses, lessons, activities, assessments, and learning resources; researching emerging trends in technology tools and pedagogy; and training and supporting faculty in using new instructional technology and learning management systems (Rubley, 2016).

**Faculty perceptions.** The Instructional Designers in Higher Ed survey by the Chronicle of Higher Education shows that there are at least 13,000 learning designers working in higher education in the U.S. alone (Rubley, 2016). Although collaboration with learning designers has shown to result in positive outcomes for both faculty and students, a survey by Jaschik and Lederman (2018) found that that only 25% of faculty have worked with a learning designer to create or revise an online or blended course. Although this may be due to a lack of access to a learning designer or misconceptions about what they do, those faculty who have partnered with learning designers have had overall good experiences (Jaschik & Lederman, 2018; Richardson et
al., 2018; Rubley, 2016). In fact, 93% of faculty who have worked with learning designers describe their experience as positive. Furthermore, a large majority of faculty agreed that learning designers improved the quality of their courses (70%), helped them in areas where they lacked expertise (75%), assisted them to understand and implement available technologies (75%), and shared tips and best practices for fostering student engagement (65%) (Jaschik & Lederman, 2018).

**Online Course Development**

As learning design has found its footing in higher education, more institutions are providing support through online course development. Although this type of support can be offered through a variety of formats and/or programs, it provides a unique opportunity that can extend well beyond the development of a single online course (Buckenmeyer et al., 2013). In fact, Buckenmeyer et al. (2013) suggest that faculty development programs targeting the development of online courses have the potential to create a far-reaching impact on faculty members and the institution as a whole. Since this type of professional development will be the focus of this study, a close examination of the approaches, models, and challenges associated with online course development is necessary.

**Development Approaches**

There are two main approaches to online course development. The first is a traditional, faculty-driven approach and the second is a collaborative, team-based approach, which typically involves learning designers and faculty members working together. Although there is a plethora of research that supports the collaborative approach that most institutions use today, it is
important to acknowledge the former approach, which can provide insight on the faculty perspective (Chao et al., 2010).

**Traditional online course development.** In the traditional model of online course development, faculty must play the role of the designer and the subject matter expert (SME). Although some proponents of online learning contend that the “lone ranger” model where faculty design, develop, and facilitate the course independently is not scalable, it is important to acknowledge the instructor’s perspective on online course design and understand the reasoning behind their pedagogical decisions (Baldwin, 2019; Chao et al., 2010). One study explored the online design strategies used by 33 instructors who designed and developed online courses without the assistance of learning designers. Using grounded theory as a basis for the study, Baldwin (2019) interviewed each faculty developer to understand why instructors do what they do when designing online courses. Findings revealed that participants adapted to the online environment by using their background in traditional education. In other words, they accommodated their knowledge from traditional instruction about pedagogy, technology, and content and applied it to a new environment. The participants utilized several course design strategies including guiding students to course content, utilizing technology to connect with online students, and encouraging intellectual engagement. One instructor even commented on the overall challenge of online course creation and described it as a paradigm shift, where students have to become more actively engaged in the learning process. The participant noted, “Too often in the learning process it is too easy for both the instructor and the student to fall back on the old model of ‘I lecture, you write down what I have to say.’ The online environment is different” (Baldwin, 2019, p. 205).
**Collaborative online course development.** Although some institutions still require instructors to design and develop online courses independently, the vast majority of institutions have embraced a more collaborative approach. Collaborative course design is an established practice for the development of higher education courses and refers to a team-based approach that leverages the specialized knowledge among a group of experts (Voogt et al., 2015). This well-cited approach has proven to be successful as the design and development of high-quality online courses require a wide spectrum of experience, technological skills, and pedagogical knowledge (Brigance, 2011; Chao et al., 2010; Richardson et al., 2018; Scoppio & Luyt, 2017).

**Building collaborative relationships.** Because collaboration is such a large aspect of this approach, it is important to understand the relationship between faculty and learning designers in addition to the factors that contribute to or challenge these partnerships. Collaborative environments offer an optimal medium for rich discussion and the sharing of diverse knowledge and expertise (Chao et al., 2010). Although some faculty are accustomed to collaboration, others are less familiar with this approach and may need to shift their perspective when working in teams (Stevens, 2013). To coincide the need for a professional relationship, the instructor and learning designer need to adopt new views and understand that technology should be used as a pedagogical tool (Stevens, 2013). Stevens (2013) explored the experiences of learning designers and instructors during the online course development process to determine if their experiences had an effect on the process itself. Using a case study approach, Stevens (2013) interviewed both learning designers and instructors and identified several contributing factors to a successful online course development process including communication, commitment to quality online courses, commitment to building robust working relationships, mutual respect for one another’s time and talents, and satisfaction in working with online course development. Of these factors,
communication was the most common factor identified as having a positive effect on the development process (Stevens, 2013). Although many of these factors are prevalent in the course development literature, Stevens (2013) also identified the need for enjoyment. Because his qualitative study included in-depth interviews, the researcher was able to detect that participants felt a sense of enjoyment while working with their assigned partner. In fact, several participants described their sense of pride in the final product and provided responses that reflected enjoyment with the development process in general. For example, one instructor commented, “The relationship in my opinion makes the whole difference as to whether or not you go work with someone and you get acquainted with them” (Stevens, 2013, p. 9).

Another interesting finding when considering the relationships between faculty and learning designers is the emphasis of soft skills. Richardson et al.’s (2018) study examined faculty perceptions of motivators and concerns regarding online education. A researcher-designed questionnaire revealed that both parties discussed the need for building trust and rapport, listening actively, coaching and facilitating, being open-minded and flexible, and being sensitive to cultural differences (Richardson et al., 2018).

Barriers to success. Although most of the responses were positive, participants did identify potential barriers to collaboration including limited time and uncooperative attitudes (Stevens, 2013). Another major barrier cited by learning designers was faculty buy-in. As previously discussed, some faculty are hesitant to transition to the online environment while others simply do not have the time to commit to the process. Either way, these challenges can impede the development of the course and the relationship between both roles. Perhaps the biggest challenge identified in the study was the misconception of roles and the learning design process (Richardson et al., 2018). Learning designers felt that faculty were unclear about what
they do or how they can help (Richardson et al., 2018). This same finding was echoed in a national report on the role, workflow, and experience of learning designers. In fact, there seems to be a common misconception that learning designers are glorified IT staff who simply put courses online (Intentional Futures, 2016). As that is the case, learning designers should clearly articulate their role in the early stages of the course development process and provide examples and recommendations for how they can support faculty through online course design.

**Course Design Models**

Effective course design is extremely important within the context of online course development and can directly impact student success (Baldwin, 2017; Merrill et al., 1966). The design of the course should prioritize a student-centered pedagogical approach through active learning and modern technologies (Scoppio & Luyt, 2017). Learning designers have a wide range of learning design models to leverage; however, design-related decisions can often be impacted by the context of the institution or the experience level of the faculty member.

**Collaborative design models.** One qualitative study investigated team roles and curricular decisions of a course development team involving faculty and learning designers (Xu & Morris, 2007). The design model, in this case, involved four face-to-face planning meetings and an online site established by the development team. Individual team members included four faculty members, a technical support staff person, and project coordinator. The project coordinator played a large role in the process and served as project manager, group facilitator, and learning design expert while faculty were primarily involved with course content.

Using a case study approach, the researchers relied on semi-structured interviews, observations, and content analysis of the online site to better understand the roles assumed and
the curricular decisions made. Although all faculty participants perceived the development process to be beneficial, they did acknowledge the increased workload and potential conflicts with a collaborative approach. In fact, all team members described a heavier workload compared to developing a course independently; however, they did express that the process enabled them to look at things through new lenses. Although faculty primarily focused on the curricular decisions, there was some conflict regarding the project coordinator’s involvement with the course design. Most of the issues revolved around the differences between traditional pedagogy and online pedagogy, and while some of the project roles were interrelated, all team members felt that the absence of any of the roles would have impeded the overall process (Xu & Morris, 2007).

Chao et al.’s (2010) study also examined a collaborative design model in an effort to achieve quality online standards. The researchers argued that quality guidelines are necessary to reassure stakeholders that online courses are an effective and rewarding experience for students (Chao et al., 2010). This study also utilized a case study approach and included four cases where learning designers worked collaboratively with faculty to develop online courses while utilizing quality standards to both design and review the courses. Purposeful sampling was used to ensure diversity among courses and multiple data-gathering strategies were utilized including document analysis, surveys, and semi-structured interviews (Chao et al., 2010).

Although the findings indicated that learning designers and faculty focused on different quality standards, all participants agreed that the standards were helpful in the development process. Both the survey data and interviews suggested that the participants’ views on quality standards depended on their level of experience. Factors that facilitated collaboration included rapport, establishing expectations, and a shared vision for the course. Interestingly, the cases
revealed that the extent of collaboration was dependent on whether the course was new or simply required revisions. Factors that hindered collaboration included feelings of being overwhelmed by the amount of information and feedback from the learning designers. According to Chao et al., (2010), “If the course required a minor revision, the nature of the collaboration became task-oriented, rather than based on building a vision and relationship” (p. 116).

The study’s findings revealed key takeaways for both learning designers and faculty. Recommendations include using quality standards in a more flexible way to support the varying needs of each course, planning for additional collaboration time if working on new online courses, using the quality guidelines to assist throughout the development process, and building awareness at the university level for the quality standards (Chao et al., 2010).

**Flexible design models.** Scoppio and Luyt (2017) investigated two cases of course design that emphasized the skill gap that some instructors face as they develop online courses. The researchers argued that, “By providing a flexible and interactive model of support to instructors, learning designers can shorten this gap in theoretical knowledge and practical skills” (Scoppio & Luyt, 2017, p. 725).

The authors utilized a comparative approach and qualitative methodology to study both cases at their respective institutions. They also drew upon their own experience with online learning to provide deeper analysis of each model, which could be viewed as a potential limitation (Scoppio & Luyt, 2017). The authors discussed gaps in both meaning and technology adoption and argued that some faculty do not fully understand the role of a learning designer. Another identified gap in meaning involved the theoretical frameworks associated with the field of learning design. Learning designers often rely on learning theories such as adult learning theory and constructivism to design student-centered learning environments (Scoppio & Luyt,
By discussing these frameworks within the context of the course design process, learning designers can scaffold faculty and rationalize the pedagogical and technical suggestions made (Scoppio & Luyt, 2017).

Although the case studies varied in size and level of support, they both prescribed to a non-linear design model. The RMCC case involved three levels of support from the learning designer: moderate, limited, and minimal. In addition, faculty also had access to tools, resources, and workshops to assist them throughout the development process. On the other hand, the SUNY case involved a two-day workshop led by learning designers. After this intensive session, faculty collaborated with learning designers and attended on-going professional development sessions, as needed. Both cases emphasized a flexible and adaptive approach based on the skills and needs of the faculty member. The researchers collected data through document analysis, a survey, and semi-structured interviews. Findings revealed the need for dialogue, collaboration, flexible design support, and ongoing professional training. In addition, the authors suggested that learning designers should explore the gaps of faculty and help to bridge them utilizing diverse and individualized strategies (Scoppio & Luyt, 2017).

McCurry and Mullinix (2017) also advocated for a flexible model of course design. Coming from the perspective of two former faculty members, the researchers recognized that teaching is a highly individualized process. In order to adapt to the instructor’s perspective, knowledge, and expertise, McCurry and Mullinix (2017) proposed a concierge model of course design. As the name implies, this model is adapted from hotel concierge services and requires the learning designers to meet the instructors where they are at. The researchers suggested that:
A concierge, a good one anyway, serves a simple function: understanding where ‘the guest’ has been, where they want to go, what they want to do, and point out to them the best match in services of directions to get them efficiently and pleasantly on their way. (McCurry & Mullinix, 2017, p. 4).

Their consultative design model includes a course appraisal questionnaire followed by an initial meeting to review the answers and identify the motivation behind the course development. Based on the meeting, a work plan is developed to track project tasks and goals, checkpoints throughout the process, and a timeline for completion. After the plan is established, there are intermittent check-ins to gauge progress and discuss challenges. After a series of consultations, the course is reviewed both internally and externally, as needed (McCurry & Mullinix, 2017).

The researchers provided ten takeaways for supporting individualized development models including focusing on the course (not the instructor), meeting faculty where they are at, recognizing that each course is unique, keeping suggestions clear and simple, acknowledging that the process takes time, viewing the course through a learner’s perspective, utilizing rubrics, identifying essential elements of the course, recognizing the designer role, and acknowledging that the process is ongoing (McCurry & Mullinix, 2017).

**Mentoring design models.** Lewis and Slapak-Barski (2014) discuss communities of practice as a way to promote a culture of learning within online courses and faculty developers. Their study, which relied on the diffusion of innovations theory, aimed to teach faculty how to design and develop their own instructional materials in order to share their newly acquired skills with other faculty developers. In order to accomplish this goal, they formed a group of faculty champions who were trained by learning designers to use a variety of technology-related tools.
While the learning designers provided guidance and support, it was the faculty’s responsibility to produce the instructional materials and build their online courses (Lewis & Slapak-Barski, 2014).

Although this train-the-trainer approach allowed the designers to reach more courses and empower more faculty, there was a major challenge in that faculty were expected to share their instructional materials. As one might imagine, this caused issues with those not willing or interested in sharing their newly-created materials. To help mitigate this issue, the community relied on administrators who clarified that the materials would be used and re-used in an effort to better support online students. In addition, credit was provided to the original developer, which seemed to alleviate some of the concerns. All of the materials were collected and available online in a faculty toolbox that the learning design team managed. Although there were issues with sharing work between faculty members, the study ultimately led to the creation of a wide variety of instructional materials in addition to a community of faculty and designers that partnered together to teach other faculty how to develop sound and appropriate materials for the online environment (Lewis & Slapak-Barski, 2014).

Buckenmeyer et al. (2013) also discussed a highly collaborative course design model that utilized a mentoring approach to help faculty design and develop high-quality online courses. In this study, the researchers examined faculty participation in a structured mentoring program to see if this approach was beneficial for the creation of online courses (Buckenmeyer et al., 2013). The Distance Education Mentoring Program (DEMP) paired faculty participants with mentors to ensure a focus on learning design principles and quality standards. In the first stage, participants worked collaboratively with their mentors to design and develop their courses. They attended a two-day knowledge session, monthly workshops emphasizing skill development, and enrolled in an online course through the university’s LMS. Participants engaged in discussions and utilized
resources related to the course design process. Next, the participants self-assessed their courses and received feedback from their mentors. In the second stage, the participants taught their courses and received another round of feedback from a different mentor once the course was complete. In the third stage, the mentor team reviewed the course according to the QM rubric and designated it as pass, pass conditionally, or further review. In the fourth stage, participants whose courses had successfully passed the quality review were recognized along with the mentors who guided them throughout the process (Buckenmeyer et al., 2013).

The researchers used a questionnaire to collect data about the program, its characteristics, and whether faculty perceived a transfer of learning. The findings, which are particularly relevant to the current study, suggest that not only did participants develop high-quality courses, but they also changed their beliefs and learned skills and methods that could be applied to their teaching practices. According to Buckenmeyer et al. (2013), participants experienced a transfer of learning from their immediate task of online course development to other teaching contexts. Although the program proved to be successful in terms of developing online courses, the results showed that the success was strongly correlated to its collaborative atmosphere (Buckenmeyer et al., 2013). These findings are important to the current study as they indicate that it is possible for faculty to experience a transfer of learning from an online course development program. Because the current study is also evaluating how faculty transfer their learning to other teaching contexts, it is important to understand the factors that led to the participants’ perceived success in the DEMP program. According to Buckenmeyer et al. (2013), the design of the program is more important than the characteristics of the faculty who participated. By focusing on specific aspects of the program (instructional design for online learning, qualities of the mentoring relationship, and the collaborative nature of the program), the researchers were able to determine
that much of the perceived success was attributed to collaboration. Since the current study also evaluated a highly collaborative course development program, it was hypothesized that faculty could also experience a similar transfer of learning.

Although the Buckenmeyer et al. (2013) study provides significant insight to the current study, one limitation is that it only focused on quantitative information gathered through a single survey instrument. A qualitative approach could shed light on specific examples of transfer and help to mitigate potential threats to validity.

**Design Implications**

These course design models demonstrate a wide range of approaches to supporting faculty with online course development. Although each model employed a different design, they all emphasized the importance of collaboration and flexibility in meeting the individual and unique needs of the instructor. Furthermore, the models emphasized the need to embed learning design principles and quality standards into the program’s curriculum. Although collaboration played a major role in each of the models discussed, some limitations were revealed including potential conflicts between team members and misunderstandings between traditional pedagogy and online pedagogy.

Another aspect that played a major role in each of the programs was the context of the institution. Some models provided different levels of support while others used a train-the-trainer approach to capitalize on available resources and empower faculty participants. From a research perspective, most of the models were evaluated through a qualitative lens and a large majority of the researchers employed a case study approach. Although all of the course design models appeared to have positive impacts on faculty participants, the mentoring design models
seemed to have the most far-reaching effects. In fact, the Buckenmeyer et al. (2013) study resulted in faculty participants applying their knowledge to other teaching contexts. Although this was the only study to explore the notion of learning transfer, the researchers attributed its success to its collaborative environment. These findings emphasize the need to understand how a program’s design characteristics could potentially play a role in how faculty transfer their learning to other teaching contexts.

**Impact of Course Development Programs on Faculty Teaching Practices**

By focusing on the design features of a course development model, it may be possible to influence the extent to which faculty can benefit from their experience. There is evidence to suggest that faculty who participate in online course development programs can experience a transfer of learning from their immediate task of course development to other teaching contexts (Buckenmeyer et al., 2013). Moreover, the majority of faculty who teach online reported that the experience has taught them skills that have improved their teaching (Jaschik & Lederman, 2018). Although this finding addresses online teaching as opposed to online course development, it may be possible that the effects are similar. The following section will describe the transfer of learning and related theories and practices. It will also detail a specific model of evaluation and discuss how these concepts can provide insight on the effects of online course development programs.

**Transfer of Learning**

Transfer of learning occurs when learning in one context impacts performance in another context (Perkins & Salomon, 1992). Although transfer is one of the primary goals of education,
research suggests that transfer does not always occur, especially when the context is much different than the context of learning (Gilbert et al., 2011). Transfer occurs in two separate ways: reflexive or low road transfer and mindful or high road transfer. “Low road transfer involves the triggering or well-practiced routines by stimulus conditions similar to those in the learning context” (Perkins & Salomon, 1992, p. 2) and “high road transfer involves deliberate effortful abstraction and a search for connections” (Perkins & Salomon, 1992, p. 2). Two instructional strategies that foster the concepts of high road and low road transfer include hugging and bridging (Perkins & Salomon, 1992). Hugging is a strategy that engages the learner in the target performance that promotes reflexive transfer. For example, an instructor might provide students with sample test questions rather than explaining particular strategies that would help them succeed in the exam, ultimately leading to low road transfer. On the other hand, bridging encourages abstraction of the rules by searching for connections among various experiences and applying them to unknown cases (Hajian, 2019).

**Related theories.** Learning transfer has become a relevant topic of research in educational psychology since Thorndike and Woodworth developed the theory of identical elements (Singley & Anderson, 1989). According to this view, learning can be transferred from one activity to another if the two activities are similar and share many common elements (Hajian, 2019). Although several transfer-related theories developed simultaneously, it was the theory of situated learning that combined several branches of work into a more complete theory of learning and transfer. In this theory, learning and cognition are developed through authentic activities in social contexts (Hajian, 2019). This view is particularly relevant to the current study, especially in relation to collaborative course design. In fact, Voogt et al. (2015) argue that the situative perspective can be used as a framework for investigating learning by collaborative
design. In collaborative design, teachers create or adapt curricular materials in teams. As teachers interact in their design communities, they share knowledge, exchange ideas, and learn from each other’s expertise. This role is consistent with the literature that suggests that active engagement over an extended period is critical for learning (Voogt et al., 2015). According to Voogt et al., (2015), “By engaging teachers over an extended period in the collaborative design of curriculum materials, chances are increased that they will assume individual and collective responsibility, leading to intentional and transformative action and learning from the process” (p. 262). Although this finding has implications for the current study, there is little research in this area (Voogt et al., 2015).

As much of the literature has shown, most faculty development programs focus on practical elements of online teaching as opposed to theories of learning or research. Johnson et al. (2012) also found evidence of this when designing a faculty bootcamp to overcome technology anxiety. Their model was designed to be consistent with the transfer of learning, especially in the areas of thorough and diverse practice. The three-day faculty bootcamp, which involved research and discussions about online learning, technical training on the course management system, and hands-on learning and practice, was well-received by faculty. In fact, participants unanimously agreed that the bootcamp made them feel comfortable with creating online course content (Johnson et al., 2012). Johnson et al. (2012) equate the program’s success to the application of the theories and the importance of combining practice and theory when developing faculty trainings.

Transfer of learning and situated learning theory are relevant to collaborative course design as faculty participants are expected to apply their knowledge from the process of course development to the online courses they are teaching. Situated learning theory views learning as
an integrative process where learners are actively engaged in their learning while receiving instruction, guidance, and feedback from social interactions and authentic experiences (Hajian, 2019). Although situated learning theory is more focused on learning as opposed to transfer, both can be considered in the context of collaborative course design. Because this practice involves the creation or adaptation of curricular materials while working in teams, and faculty receive guidance, feedback, and suggestions from specialized experts (Voogt et al., 2015), collaborative course design seems to provide an authentic mechanism for faculty course developers to extend their knowledge from one related context to another (Buckenmeyer et al., 2013).

**Transfer of Training**

Closely related to the transfer of learning is the transfer of training. Formal training usually involves learning new knowledge, skills, and attitudes in one environment that can be applied in another environment. For transfer to occur, learning behavior must be generalized to the job context and maintained over a period of time. However, like the transfer of learning, several studies have demonstrated that learning from a formal training program is often not applied on the job (Baldwin & Ford, 1988; Saks, 2002; Yamnill & McLean, 2001).

**Transfer process model.** Baldwin and Ford (1988) defined transfer of training as “the degree to which trainees effectively apply the knowledge, skills, and attitudes gained in a training context to the job” (p. 63). Their framework for understanding the transfer process is described in terms of training inputs, training outputs, and conditions of transfer. Figure 1 illustrates the transfer process model.
As indicated in the model, training outcomes, or the amount of original learning that occurs during the program, and training input factors (training design, trainee characteristics, and work environment characteristics) are argued to have direct and indirect effects on the transfer process. These effects are specified through six linkages, which, according to Baldwin and Ford (1988), are “critical for understanding the transfer process” (p. 65). For example, Linkage 6 shows that training outputs of learning and retention are seen as having a direct effect on the condition of transfer. In other words, for learned skills to transfer, training material must be first learned and retained. This concept is also emphasized in Kirkpatrick’s training evaluation model, which was used to inform the research questions and evaluation in the current study.

Figure 1. A Model of the Transfer Process

Other characteristics that are hypothesized to have a direct effect on the transfer process include trainee characteristics and work environment characteristics. For example, learned skills may not be maintained on the job because of lack of motivation or supervisory support. Within the context of the current study, faculty who are not motivated to teach online or were asked to do so by their college or department chair might not retain learned skills, which would have a direct impact on their transfer. Although Baldwin and Ford’s (1988) transfer process model indicates that training outputs are directly affected by the three training inputs, training inputs only have indirect effects on transfer. In the current study, Baldwin and Ford’s transfer process model and Level 3 of Kirkpatrick’s training evaluation model were used as frameworks for evaluating the learning transfer that occurred as a result of the DLC program.

A related study that specifically addressed the transfer of training was conducted by Agyei and Voogt (2014) who investigated the extent to which beginning teachers transferred their knowledge and skills after participating in a 14-week Information Communication Technology (ICT) professional development program. The study involved 100 final-year preservice mathematics teachers. Of particular relevance was the potential transfer of the ICT-enhanced activity-based learning in the teachers’ professional and teaching practices. Using Baldwin and Ford’s (1988) transfer process model, Agyei and Voogt (2014) considered three groups of characteristics, including the characteristics of the training program itself, to evaluate the potential transfer. Results of the study indicated that participants continued to employ aspects of the ICT-enhanced learning in their professional and teaching practices approximately six, eighteen, and twenty-eight months after the program with the most influential factor being the pedagogical views of the program itself. Although the findings indicate that participants experienced a transfer of learning, there was a significant difference in the level of transfer that
was attributed to a range of factors across the individual participants and their environmental characteristics (Agyei & Voogt, 2014). Overall, participants highly valued the skills and knowledge obtained through the program, but their use of the ICT-enhanced activities were hindered by their learner characteristics such as commitment, availability of time, and dissatisfaction with the status quo. Other factors that impacted their use of the ICT activities were more related to school environmental characteristics such as school culture, availability of resources, rewards, and incentives (Agyei & Voogt, 2014).

Although this study targeted a different population than the current study, it still provides some key insights, especially regarding transfer of learning and the utilization of Baldwin and Ford’s (1988) transfer process model. Through semi-structured interviews, the researchers were able to identify specific practices that demonstrated how participants employed aspects of the program into their own teaching practices including the use of teamwork among their students and the use of lesson notes in guiding lessons. Another important insight (and major hindrance) of transfer was the mix of school-related constraints that resulted in a lack of creativity in using certain components of the activities. For example, lack of access to the ICT infrastructure and unenthusiastic school cultures were found to have a major impact on transfer. Knowing that these are common barriers to transfer, this study will closely consider the factors that have both direct and indirect effects on transfer by utilizing Baldwin and Ford’s (1988) transfer process model.

Program Evaluation

In the context of higher education, executives, leaders, administrators, and managers need to know the value that is provided by the programs they operate or fund. Although anecdotal
evidence has shown that the DLC program has impacted faculty participants’ teaching practices, a more formalized evaluation is needed. Program evaluation is defined as the “application of system methods to address questions about program operations and results” (Newcomer et al., 2015, p. 8). Although program evaluation can include ongoing monitoring and one-time studies of program impact, Kirkpatrick and Kirkpatrick (2016) argue that there are three major reasons to evaluate training programs: program improvement, maximize learning transfer, and demonstrate program value.

**Kirkpatrick’s Training Evaluation Model**

As this study has evaluated a collaborative course design program, it is necessary to discuss one of the most widely used evaluative models—Kirkpatrick’s training evaluation model. Kirkpatrick’s training evaluation model grew organically out of a series of articles written by Donald Kirkpatrick in the 1950s (Kirkpatrick & Kirkpatrick, 2016). Kirkpatrick’s articles titled “Reaction,” “Learning,” “Behavior,” and “Results” gained major traction with training professionals and became known as the four levels of Kirkpatrick’s training evaluation model (Kirkpatrick & Kirkpatrick, 2016). The levels represent a program evaluation sequence, and each level serves a specific purpose and has an impact on the next. In 2009, the model was enhanced to help operationalize the levels in modern working and learning contexts (Kirkpatrick & Kirkpatrick, 2016). Kirkpatrick’s training evaluation model is depicted in Figure 2.

As this study leveraged the first three levels of the Kirkpatrick training evaluation model to evaluate the DLC program, these are described in detail below.

Level 1 Reaction, which is the level most familiar to learning professionals, measures the extent to which participants find the training favorable and relevant to their jobs. This level can
be evaluated through formative or summative methods; however, summative methods, and particularly surveys are the most common (Kirkpatrick & Kirkpatrick, 2016). Post-program survey items may evaluate overall satisfaction with the program, engagement in the program based on how it was delivered, relevance of the program material to the participant’s job, and general view on the program quality (Kirkpatrick & Kirkpatrick, 2016).

**Figure 2.** Kirkpatrick’s Training Evaluation Model

*Adapted from Kirkpatrick Partners, LLC.*

Level 2 Learning measures the extent to which participants acquire knowledge and skills based on their participation in the training. Although Level 2 is usually evaluated in most programs, some trainers fail to consider the goal of increasing job performance and maximizing organizational results. Kirkpatrick and Kirkpatrick (2016) argue that all program materials and activities should contribute to the learning and be able to provide the data needed to show that an
acceptable level of learning has occurred. Like Level 1, Level 2 can be measured through formative or summative methods and may include a variety of formats including knowledge checks, discussions, group activities, action planning, surveys, interviews, or focus groups, to name a few (Kirkpatrick & Kirkpatrick, 2016).

Level 3 Behavior measures the extent to which participants apply or transfer what they learned during the training when they are back on the job. Perhaps the most important level of the model and the most relevant to the current study, Level 3 is about more than evaluation. In fact, Kirkpatrick and Kirkpatrick (2016) argue that this level is “the missing link in moving from learning to results” (Chapter 7, Section 1, para. 3). Although Level 4 is not considered in the current study, Level 3 is most closely related to the notion of learning transfer. Kirkpatrick and Kirkpatrick (2016) argue that in order for Level 3 to be evaluated, critical behaviors must be defined. Critical behaviors are the behaviors performed by the training audience on the job. These behaviors or outcomes should be measurable and specific. Furthermore, the authors argue that trainers should consider required drivers that monitor, reinforce, encourage, and reward performance of critical behaviors on the job. These drivers, which can take a variety of formats, can provide additional support and accountability to all participants. For example, suggested support drivers may include follow-up modules, job aids, and communities of practice while suggested accountability drivers may include interviews, surveys, observation, and self-monitoring (Kirkpatrick & Kirkpatrick, 2016).

Although Kirkpatrick’s training evaluation model has been used extensively, some critics contend that the model is too focused on the end results and does not consider some of the contextual variables of the work environment. Although this criticism has been addressed in the New World Kirkpatrick Model, one study took Kirkpatrick’s training evaluation model a step
further by combining it with Baldwin and Ford’s (1988) transfer process model. In this mixed methods study, Aluko and Shonubi (2014) investigated the impact of a distance education program on graduates’ job performance. Collecting data through surveys and focus groups, the researchers found that the organizational climate had a strong influence on learning in the workplace. In fact, they concluded that the workplace environment, along with other personal factors, played a major role in the trainees’ abilities to transfer their learning to the work environment (Aluko & Shonubi, 2014).

In another study that explored the long-term impact of a faculty development program, Tennill and Cohen (2013) leveraged Kirkpatrick’s training evaluation model and reported that participants retained learning five years after the program was complete. The program, titled New Faculty Teaching Scholars (NFTS), sought to acclimate new faculty members to their roles and responsibilities across the university. It operated from 2001 to 2009 and included fifty participants each year with the goal of engaging and encouraging early-career faculty to stay at the university until they attained tenure and beyond (Tennill & Cohen, 2013).

Using a qualitative approach, the researchers employed several methods of data collection including document review, interviews, and observations. They selected twelve participants from two program years and interviewed them to learn how the NFTS program affected them over time. Using Kirkpatrick’s training evaluation model as their guide, the researchers reported positive results in all four levels. In fact, Tennill and Cohen (2013) identified specific behavior changes and impacts on the professional lives of the participants including the integration of instructional strategies focused on active and engaged learning. Although Tenill and Cohen (2013) attributed much of the program’s success to its collaborative and social environment, a major limitation of this study was that a myriad of other factors could
have contributed to the changes in participants over time. By solely relying on the Kirkpatrick’s training evaluation model, the researchers did not factor in other potential influences such as trainee or work environment characteristics, which are known to have direct effects on transfer. In the current study, the researcher has considered environmental characteristics that could impact learning transfer.

**Summary**

This chapter revealed critical information about the landscape of online learning and the nuances of online course development. When considering the research questions that drive this investigation, the literature has shown that barriers still exist despite the increasing number of faculty who teach online. Although these barriers have precipitated the need for learning designers in higher education, the literature has shown that there are no universal approaches when it comes to supporting faculty. Instead, institutional contexts and available resources drive existing faculty development programs.

One of the programs that seems to have the most far reaching effects on faculty teaching practices is online course development. An in-depth examination of course design models revealed the importance of collaboration and flexibility within the design. In an effort to understand how these models potentially impact learning transfer, the research has shown that transfer can be promoted through program inputs such as training design and work environments. Although these factors play direct and indirect roles in the learning transfer process, there is limited research in this area. Therefore, additional research is needed to fully understand the potential impact of the DLC program. Evaluating the program through the lens of Kirkpatrick’s training evaluation model and Baldwin and Ford’s (1988) transfer process model will not only
justify the value of the program but will also illuminate the factors that ultimately lead faculty to success.
CHAPTER THREE:
RESEARCH METHODS

There is great potential for research to uncover the evolving nature of faculty development. In the previous chapter, online learning was explored with a focus on the development of online courses and the collaborative design models that support these efforts. The review resulted in valuable information and revealed that the majority of related studies were qualitative in nature. Although the review confirmed the need for several existing characteristics of the DLC program, such as its highly collaborative environment and personalized support, it also revealed a major gap in evaluative studies overall. Of the studies reviewed, only one considered the notion of learning transfer and the application of skills and knowledge to faculty teaching practices.

This chapter presents the research design that was used in this study. It includes demographic information about the study participants and explains the use of purposeful sampling. It also details the research setting and design model utilized in addition to an explanation of the data collection and analyses procedures. The chapter concludes with ethical considerations and a brief perspective provided by the researcher.

Research Design

This study used an explanatory case study approach to evaluate the DLC program using Kirkpatrick’s training evaluation model. In particular, the study explored faculty perceptions of
the program and sought to explain the impact on their learning and transfer to other teaching contexts. A case study is appropriate for this purpose as it focuses on the search for meaning and understanding and results in a richly descriptive end product (Merriam, 2016). Case studies, and qualitative research in general, are particularly good for exploring practical problems—“for questions, situations, or puzzling occurrences arising from everyday practice” (Merriam, 2009, p. 43). This study used an inductive approach where themes or categories emerged based on the qualitative data collected. It was documented in a descriptive report that included direct quotations and personal narratives that represent the learning and application of learning to other contexts. Although a large portion of the data was qualitative, some quantitative data was also collected in order to quickly gather information and evaluate the program to better understand participants’ perceptions, learning, and transfer.

As this investigation utilized a case study approach, it is necessary to discuss several varying definitions of the case study methodology. According to Stake (1995), a case study is “the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances” (p. xi). Merriam (2016) defines case study as “an in-depth description and analysis of a bounded system” (p. 37). Yin (2018), on the other hand, offers a twofold, process-driven definition that considers the scope and features of a case study. Yin (2018) further describes a case study as “an empirical method that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident” (p. 14). Merriam (2016) argues that of these varying definitions, the most defining characteristic of case study research is the case itself. According to Stake (2005), the case study is less of a methodology choice than “a choice of what is to be studied” (p. 443). The “what” is a single entity or a unit in which there are boundaries.
Case studies generally fall into one of three categories: exploratory, descriptive, or explanatory. An exploratory case study aims to define the questions and hypotheses of a broader study. A descriptive case study presents a detailed description and aims to include relevant details of an event within context. An explanatory case study aims to establish a cause-and-effect relationship, explaining which causes produced which effects within a specific context (Newcomer et al., 2015).

In the current study, the researcher adopted Merriam’s (2016) definition of case study as it emphasizes the importance of the case itself or, in other words, the unit of analysis. The single-case that was studied in this investigation was the DLC program. Because this study focused on the evaluation of a specific program and sought to solve a practical problem, it was ultimately categorized as an explanatory single-case study.

**Study Participants**

All faculty course developers who participated in the Summer and Fall 2020 cohorts of the DLC program were recruited for this study. Although 18 faculty developers agreed to participate, three were unable to fully complete the program. Among the 15 participants, eight were female and seven were male, and the majority of participants (53%) were between the ages of 45-54. Most participants were not on a tenure track (n = 8); however, six participants were tenured, and one was not tenured but on a tenure track. The participants represented a variety of academic colleges including Arts and Sciences, Behavioral and Community Sciences, Education, and Business in addition to several disciplines including exercise science, management, accounting, English, behavioral health, and social work. Table 1 presents participant demographics for this study.
The majority of participants (40%) taught in higher education for more than 15 years and only one had not previously taught online. Although the majority of participants (93%) had online teaching experience, only four had taught online for at least five to ten years. Table 2 presents participant teaching characteristics.

Table 2. Teaching Characteristics of Faculty Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years teaching in higher education</td>
<td>15</td>
<td>3.93</td>
<td>1.163</td>
</tr>
<tr>
<td>Years teaching at this university</td>
<td>15</td>
<td>3.27</td>
<td>1.100</td>
</tr>
<tr>
<td>Years teaching online courses</td>
<td>14</td>
<td>2.14</td>
<td>.663</td>
</tr>
</tbody>
</table>
Among the 15 participants, two had never developed an online course and eight had never taken an online course as a student. When asked about their adoption of technology, nine participants indicated that they adopted new technology after seeing their peers use them effectively, five considered themselves early adopters of technology, and only one was disinclined to use educational technologies altogether. Of the 15 participants, two were co-developing four courses; therefore, there were 17 online courses developed during the Summer and Fall cohorts of the DLC program.

Of the 15 participants, a purposeful sample of seven were selected to participate in semi-structured interviews. According to Merriam (2016), purposeful sampling is based on the assumption that the researcher wants to gain insight and must select a sample from which the most can be learned. When collecting data through interviews, Merriam (2016) argues that the number of participants is not as important as the potential each person can contribute to the understanding of the phenomenon. Since the literature has shown that faculty who have online teaching experience tend to have more positive perceptions of online learning, the researcher selected interview participants with varied levels of online teaching experience, ranging from never having taught online ($n = 1$), teaching online for one to five years ($n = 4$), and teaching online for five to ten years ($n = 2$). Of the seven interview participants, four were female and three were male. The interview participants also represented a diverse range of academic disciplines including accounting, management, exercise science, addiction/mental health, and social work. This type of maximum variation sampling allowed the researcher to examine distinct perspectives of the program in order to identify common elements in their perceptions, learning, and transfer.
Research Setting

The study was conducted at a preeminent state research university in the southeastern United States. It was administered within the context of a large academic support unit that contributes to student success through a wide variety of programs and services. The focus was on a specific online course development program, DLC, that facilitates the creation of high-quality online courses.

Although the aim of this study was not related to COVID-19, the pandemic did play a role within the context of this investigation. Shortly before the study was conducted, widespread shelter in place orders were in effect, ultimately impacting the modality of the course development meetings that occurred throughout the program and the general setting in which the study occurred.

Digital Learning Collaborative

The DLC program is a cohort-based program that pairs faculty course developers with experienced learning designers to design and develop high-quality online courses that meet the needs and expectations of today’s learners. The program was created in 2014 to support the growing demand of online learning at the university. The DLC program is administered through Digital Learning, which is part of a larger organization known as Innovative Education (InEd). InEd works to design, develop, and implement change that supports learning for all learners through flexible and academically rigorous online programs.

The DLC program utilizes a four-phase course design model that combines elements of the ADDIE model of instructional design, the design thinking process, and collaborative learning/problem solving. The DLC model is structured, yet flexible, allowing faculty and
learning designers to spend longer in certain phases depending on the specific needs of the instructor and course. The DLC course design model is illustrated in Figure 3.

**Figure 3.** Digital Learning Collaborative Course Design Model
Planning and Analysis

In this phase, the groundwork is set for a collaborative partnership. The course development team conducts an initial kickoff meeting to discuss project roles, expectations, and development timelines. The development team consists of the faculty course developer, lead learning designer, co-learning designer, and project manager, who provides project oversight and leadership. The lead learning designer, who also serves as the main point of contact for faculty developers, performs a thorough analysis of the course to understand the objectives, student learning outcomes, and specific learner and instructional challenges. Simultaneously, the faculty developer begins an initial draft of the course map, which serves as a detailed plan or blueprint of the course. The course map, which is major program deliverable for faculty developers, demonstrates the alignment between module-level learning outcomes, instructional materials, and assessments and facilitates the building of the online course in the Canvas LMS.

Design and Prototype

In this phase, learning designers work closely with faculty developers to identify effective methods for content delivery based on the analysis conducted in the previous phase. The course development team focuses on creating a practical model of the course, which usually equates to approximately one-third of the course modules. The modules are built in the Canvas LMS, and the learning designer customizes and applies a visual design to the course. Once the prototype modules are built, the learning designers conduct a preliminary quality review to ensure the course is being developed with quality standards in mind. The completion of this phase is a major milestone in the DLC program.
Development

In this phase, the prototype structure that was established in the previous phase gets applied to the remainder of the course. Faculty participants continue to map their remaining modules while working collaboratively with their learning designers on the development of custom multimedia. During this phase, learning designers may bring in additional team members, if developing custom videos, graphics, animations, etc. If faculty course developers prefer to develop their own instructional materials during this phase, learning designers may play a more supportive role in this process by assisting them with customized design templates, recording or editing recommendations, technology support, etc.

Evaluation

In the final phase of development, learning designers conduct a quality evaluation of the completed course relying on the standards of QM’s Higher Ed Rubric. The course development team schedules a close-out meeting to discuss the results of the quality evaluation and the overall development program. During this meeting, support is transitioned from the learning design team to the faculty support team, who assist faculty during the implementation and facilitation of the online course.

Study Procedure

The study procedure began with the researcher seeking approval from the Institutional Review Board (IRB) (Appendix E). Once approval was granted, the researcher communicated with the leadership of each academic college to identify faculty participants for the DLC program. Although each college had a slightly different strategy for identifying faculty
developers based on their existing needs, all program participants were directed to submit a course intake form (Appendix A). The intake form collected preliminary information about the course including the motivation for developing and offering it in an online environment.

Prior to the start of the program, all faculty participants received an email message from the researcher inviting them to participate in the study and directing them to a consent form, which they completed if they chose to participate, and the Online Experience (OE) Questionnaire (Appendix B). The consent form informed the participants about the purpose of the study, its design features, possible risks and benefits, and the right to withdraw (Appendix F). The OE Questionnaire collected information about the faculty participant and their experience with online learning, online course development, and comfort level adopting and using educational technologies. The data collected from the OE questionnaire was shared with the course development team in preparation of the DLC program and also provided insight to the faculty participants’ initial perceptions of online learning.

The DLC program began with an initial kick-off meeting conducted by the course development team. During this meeting, faculty participants were enrolled in the online companion course, Designing Your Online Course (DYOC), which provided just-in-time resources, best practices for quality design, active learning strategies, tips and guidance for content development, technology considerations, sample artifacts, and faculty testimonials from previous development cohorts. The companion course also included a digital learning community where faculty could share ideas and resources and engage in asynchronous conversations centered around the development of high-quality online courses. Participants had access to the companion course throughout the duration of the program, which supplemented their efforts when working closely with their assigned learning designer.
Learning designers played a major role in the DLC program, with each course being assigned a lead learning designer and a co-designer. The lead learning designer facilitated the program by developing a plan for each course based on an analysis of the learners and the goals of the course. In addition, they identified appropriate learning design methodologies and technologies to facilitate student learning outcomes, provided evidence-based course design recommendations and best practices, provided feedback on organizational structure and instructional materials, developed custom multimedia that supported learner engagement, branded and built course materials that adhered to quality standards and accessibility, maintained ongoing communication with the faculty developers throughout the program, facilitated ongoing course planning meetings, and conducted both preliminary and final quality evaluations of the online course.

At the end of phases one, two, and three (Planning and Analysis, Design and Prototype, and Development), faculty developers participated in brief, design activity assessments, which measured their learning on course design strategies, learning design principles and practices, quality standards, and tools and technologies. During the final phase of development, the participants’ completed online courses were evaluated based on QM’s Higher Ed Rubric. Each course received a quality score (out of 100) in addition to qualitative feedback from the learning designers, which detailed the courses’ strengths and identified potential areas for improvement.

After the DLC program was completed, all faculty participants received an email message from the researcher inviting them to participate in the DLC Participant Questionnaire (Appendix C). The DLC Participant Questionnaire primarily measured the participants’ perceptions of the program and their learning transfer, although it also included one question pertaining to their learning. Once the questionnaires were completed, the researcher analyzed
the results and identified a purposeful sample to participate in semi-structured interviews. These participants received an email message from the researcher inviting them to participate in a virtual interview via Microsoft Teams. The researcher communicated directly with faculty participants to determine interview times and locations. All interviews were informed by the question guides (Appendix D) and sought to expand upon the participants’ responses from the DLC Participant Questionnaire. Once the interviews were completed, a thorough data analysis process began.

**Data Collection**

The case study design does not prescribe a specific method of data collection. Instead, it relies on multiple sources of data using a variety of methods. In qualitative research, the researcher is the primary instrument for data collection and analysis (Merriam, 2016). Yin (2018) discusses several common methods of data collection including documentation, interviews, direct observations, participant-observation, and physical artifacts. In order to evaluate the DLC program, it was necessary to use multiple sources of data. This study relied on two primary data sources that aligned with the first three levels of Kirkpatrick’s training evaluation model including semi-structured interviews and questionnaires. Table 3 presents the alignment of research questions to data sources and data analyses methods that were employed in this study.

Since the data sources in this study aligned with Kirkpatrick’s training evaluation model, they are presented according to each of level of the model.
Table 3. Alignment of Research Questions to Data Sources and Data Analyses Methods

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Data Sources</th>
<th>Data Analyses Methods</th>
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<tbody>
<tr>
<td><strong>Perception (Level 1)</strong></td>
<td>• Online Experience Questionnaire</td>
<td>• <em>Quantitative</em> – Likert scale rating general effectiveness of online courses</td>
</tr>
<tr>
<td>How do faculty participants</td>
<td>• DLC Participant Questionnaire</td>
<td>• <em>Quantitative</em> – Likert scale rating perceptions of program characteristics and general satisfaction</td>
</tr>
<tr>
<td>perceive the DLC program?</td>
<td>• Semi-Structured Interviews</td>
<td>• <em>Qualitative</em> – Constant comparative method to identify patterns and codes in relation to perception</td>
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<tr>
<td></td>
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</tr>
<tr>
<td><strong>Learning (Level 2)</strong></td>
<td>• Design Activity Assessments</td>
<td>• <em>Quantitative</em> – Analysis of knowledge check and quality evaluation scores</td>
</tr>
<tr>
<td>What do faculty participants learn</td>
<td>• DLC Participant Questionnaire</td>
<td>• <em>Qualitative</em> – Constant comparative method to identify patterns and codes in relation to learning</td>
</tr>
<tr>
<td>as a result of the DLC program?</td>
<td>• Semi-Structured Interviews</td>
<td></td>
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<td></td>
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<tr>
<td><strong>Learning Transfer (Level 3)</strong></td>
<td>• DLC Participant Questionnaire</td>
<td>• <em>Qualitative</em> – Constant comparative method to identify patterns and codes in relation to learning</td>
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<td>How do faculty participants transfer</td>
<td>• Semi-Structured Interviews</td>
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<td>their learning to other teaching</td>
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<td>contexts?</td>
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**Level 1 Evaluation: Perception**

Prior to measuring participant perceptions of the DLC program, initial perceptions of online learning were measured through the OE Questionnaire. The OE Questionnaire contained 27 close-ended questions, four of which were related to demographic and course information, 15 related to online course development and teaching experience, one related to the use of educational technologies, and seven related to perceptions of online courses in comparison to
face-to-face courses. This researcher-constructed questionnaire was used to provide a baseline for the participants’ general perceptions of online learning.

Faculty perceptions of the DLC program were measured through the DLC Participant Questionnaire, which was administered after the program was complete. This researcher-constructed questionnaire contained 19-closed-ended questions, 17 of which related to the major program characteristics and four related to general satisfaction of the program. The majority of items required participants to rate their perceptions using a five-point Likert scale where 1 corresponded with a rating of strongly disagree and 5 corresponded with a rating of strongly agree. The questionnaire also contained four open-ended questions, one of which measured perceptions of the program. Questionnaires enabled the researcher to quickly gather necessary information that could be further explored during the semi-structured interviews.

One-on-one interviews allowed the researcher to gather extensive information about the DLC program, expand upon the responses from the DLC Participant Questionnaire, and determine if participants were able to transfer their learning from one instructional context to another. Yin (2018) argues that interviews can be one of the most important sources of case study evidence and can shed light on key events along with participants’ insights and reflections.

**Level 2 Evaluation: Learning**

Participant learning was measured through design activity assessments including end-of-phase knowledge checks and the final quality evaluation. The end-of-phase knowledge checks gauged participants’ learning on course design strategies, learning design principles and practices, quality standards, and tools and technologies. These brief, formative knowledge checks were presented at the end of the first three phases of development through the DYOC
companion course in Canvas. Mean scores of the knowledge checks were determined and compared in order to assess participant learning.

The second design assessment was the final quality evaluation of the course. During this process, three learning designers conducted their course evaluations independently using QM’s Higher Ed Rubric and came together to compare their overall scores out of 100. The rubric, which includes 42 specific review standards, involves a scoring system where each standard corresponds with a value of 1, 2, or 3. Online courses must meet all essential, or 3-point standards, in addition to standards of accessibility. They must receive at least 85% of the available points on the QM rubric to achieve a high quality (HQ) designation, per the statewide course design quality review process (Distance Learning and Student Services, 2020). Quality evaluation scores were analyzed to depict patterns and determine if participants learned and applied the quality standards to their online courses. Although the quality evaluation is a natural part of the research setting, it is also considered a ready-made source of data easily accessible to the resourceful investigator (Merriam, 2016).

Additional measures for participant learning included one open-ended question in the DLC Participant Questionnaire and semi-structured interviews. During the interviews, participants were asked about the skills and knowledge they obtained while participating in the program. Constant comparative analysis was used to identify patterns and codes in relation to participant learning. Qualitative data from the DLC Participant Questionnaire and the semi-structured interviews were combined to identify overarching learning themes.
Level 3 Evaluation: Learning Transfer

Faculty participants’ learning transfer was measured through the DLC Participant Questionnaire and semi-structured interviews. The questionnaire assessed participants’ perceptions of learning transfer and asked how they applied the skills and knowledge obtained from the program to other courses they were teaching. These responses were further explored during the semi-structured interviews, where participants were asked about specific examples of how they applied their newly acquired skills and/or knowledge. Participants were also asked if these skills could be applied to courses in other modalities and if there were specific promoters or barriers to their transfer of learning. Merriam (2009) contends that interviewing is necessary when behavior cannot be observed. In the current study, the transfer of learned skills and knowledge from the DLC program to other teaching contexts would be highly difficult to observe. Therefore, the interviews helped to obtain rich and descriptive accounts of how the participants transferred their learning from one context to another.

The semi-structured interviews were guided by a list of questions organized around the training inputs identified in Baldwin and Ford’s (1988) transfer process model. The inputs, which include trainee characteristics, training design, and work environment, are known to have both direct and indirect effects on conditions of transfer. The order of the questions and exact wording was flexible, and constant comparative analysis was used to identify patterns and codes in relation to learning transfer.

Data Analysis

Data analysis is the process of making sense of collected data (Merriam, 2016). In the current study, both quantitative and qualitative data were used to evaluate the DLC program and
answer the intended research questions. Quantitative data collected from the DLC Participant Questionnaire was collected through Microsoft Forms and organized in an Excel spreadsheet, which was imported into Statistical Package for the Social Sciences (SPSS) for further descriptive analysis. Vogt et al. (2014) argue that analyzing and presenting descriptive statistical data can allow early data explorations that give important clues for later in-depth analyses.

Descriptive statistics and contextual data from the semi-structured interviews were used to understand how faculty perceived the DLC program and transferred their learning from one educational context to another.

Merriam (2016) argues that the preferred way to analyze data in a qualitative study is to start the analysis while still collecting the data. According to Merriam (2016), “Without ongoing analysis, the data can be unfocused, repetitious, and overwhelming in the sheer volume of material that needs to be processed” (p. 197). As data are collected and organized, the researcher reviewed and reread information making notes and recording insights. Qualitative data was analyzed through several cycles of analysis and included different types of codes or categories to enrich the descriptions. Once the coding was complete, the researcher identified patterns within the codes to create emerging themes. The themes helped to illuminate the factors that influenced the perceptions of participants in addition to their learning transfer from the program. In order to portray a credible account of the case, the researcher included qualitative evidence in the form of excerpts of quotes, artifacts from the online courses that were developed during the program, and stories from the faculty participants. This narrative information enriched and extended the quantitative data collected through the researcher-constructed questionnaires.
Quality and Credibility of the Qualitative Data

Similar to all works of research, the issues regarding trustworthiness and credibility should be acknowledged for the current study. According to Merriam (2016), validity in qualitative research can be approached through careful consideration of the study’s conceptualization and the way the data are collected, analyzed, interpreted, and presented. In the present study, the data collection was performed carefully and the interview questions were informed by the first three levels of Kirkpatrick’s training evaluation model and the training inputs within Baldwin and Ford’s (1988) transfer process model. In order to increase the credibility of the study, the researcher made use of multiple data collection methods and sources of data. Furthermore, the data analysis followed clear guidelines and the researcher did not attempt to make generalizations. Although the results of this study are specific to the DLC program, they can be used to inform other faculty development programs, especially in relation to online course development. Institutions looking to increase their online offerings could implement similar course development programs ensuring a focus on the specific characteristics that were shown to have direct effects on participant learning transfer in this study—one-on-one collaboration with a learning design expert and a focus on course mapping.

In addition, the researcher involved a peer reviewer who assessed the accuracy of the qualitative analysis including the open and axial codes identified by the researcher. During this process, the peer reviewer analyzed the researcher’s raw data independently and provided feedback and recommendations based on their online course design expertise and familiarity with the DLC program. The researcher and peer reviewer met three times via Microsoft Teams to review all suggestions and used the bulk of the time to discuss the categorization of open and axial codes. The peer reviewer made several categorical-related suggestions, especially in
relation to the open codes identified in research question two. Any code-related discrepancies were thoroughly discussed and resolved with both the researcher and peer reviewer ultimately agreeing on all codes. Overall, the process of utilizing a peer reviewer helped to ensure both the accuracy and validity of the qualitative research.

**Ethical Considerations**

In this study, the researcher employed several precautionary measures in order to protect the rights of the faculty participants. The research protocol and consent form were submitted and approved by IRB. Consent forms, which explained the study’s purpose, procedures, benefits, and risks, were signed by all participants. Participation was completely voluntary, and each participant was assigned a number in order to keep their identities confidential (Kvale & Brinkmann, 2009). In addition, the researcher exported all survey data from Microsoft Forms and transferred it to a password protected drive, which was also used to store the audio and transcription files throughout the study.

**Researcher’s Perspective**

As argued above, it is important for me, the researcher, to acknowledge my position and perspective that may influence this study. I have worked in higher education for over a decade, and often work with faculty course developers and learning designers in the creation of high-quality online courses. I have had the opportunity to work closely with the DLC program and have played a direct role in its design and evolution over time. As a leader of a learning design team, I have seen firsthand the benefits of a collaborative approach to course development and the impact that it can have on both faculty and students.
Since 2014, I have heard from various faculty course developers who have anecdotally described their experience in the program. They have shared valuable insights and helpful feedback that has helped shape the program over time. These conversations demonstrated the potential impact of the program and the unintended outcomes of collaborative course design models in general. Although I have existing beliefs about online course development and collaborative course design models, I have tried to minimize the influence of my personal bias by approaching this study with an open mind and focusing on the data and personal accounts of the program participants.

Summary

This chapter has provided an overview of the research methods that were employed in this study and the reasoning behind utilizing an explanatory case study approach. Multiple sources of data were collected in order to evaluate the DLC program based on the first three levels of Kirkpatrick’s training evaluation model. Although the majority of the data was qualitatively analyzed, it was also supplemented with quantitative data that was used to support the findings. Ethical considerations and measures used to ensure the safety of faculty participants were presented along with a perspective from the researcher. The following chapter will present the study’s findings.
CHAPTER FOUR: FINDINGS

Introduction

This chapter presents the findings of this explanatory single-case study. The results of the evaluation are presented below and organized by each data source. The analyses of the qualitative and quantitative data are presented through Kirkpatrick’s training evaluation model and Baldwin and Ford’s (1988) transfer process model. An interpretative analysis of the findings is presented, and the chapter concludes with a summary. The following questions guided this study:

RQ1: How do faculty participants perceive the DLC program?

RQ2: What do faculty participants learn as a result of the DLC program?

RQ3: How do faculty participants transfer their learning to other teaching contexts?

Research Question One

Although research question one focused on faculty perceptions of the DLC program, participants were also asked to rate their initial perceptions of online learning more generally through the OE Questionnaire.
Online Experience Questionnaire

Prior to starting the DLC program, faculty participants were asked to rate the
effectiveness of online courses in comparison to face-to-face courses using a three-point Likert
scale where 1 = Less effective, 2 = As effective, and 3 = More effective. Table 4 summarizes
faculty perceptions of online courses in comparison to face-to-face courses.

Table 4. Perceptions of Online Courses Compared to Face-to-Face Courses

<table>
<thead>
<tr>
<th>General Perceptions of Online Learning</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading and communication about grading.</td>
<td>15</td>
<td>2.07</td>
<td>0.45</td>
</tr>
<tr>
<td>Interaction with students outside of class.</td>
<td>15</td>
<td>1.93</td>
<td>0.70</td>
</tr>
<tr>
<td>Ability to rigorously engage students in course materials.</td>
<td>15</td>
<td>1.80</td>
<td>0.77</td>
</tr>
<tr>
<td>Ability to maintain academic integrity.</td>
<td>15</td>
<td>1.73</td>
<td>0.70</td>
</tr>
<tr>
<td>Ability to deliver the content to meet learning objectives.</td>
<td>15</td>
<td>1.73</td>
<td>0.59</td>
</tr>
<tr>
<td>Ability to answer student questions.</td>
<td>15</td>
<td>1.53</td>
<td>0.51</td>
</tr>
<tr>
<td>Interaction with students during class.</td>
<td>15</td>
<td>1.27</td>
<td>0.59</td>
</tr>
<tr>
<td><strong>Overall Means</strong></td>
<td></td>
<td>1.72</td>
<td>0.62</td>
</tr>
</tbody>
</table>

Overall, faculty participants had positive perceptions of online courses and rated them “as
effective” as in-person courses in six out of seven areas including 1) Ability to deliver the
necessary content to meet learning objectives, 2) Ability to answer student questions, 3)
Interaction with students outside of class, 4) Grading and communication about grading, 5)
Ability to rigorously engage students in course materials and 6) Ability to maintain academic
integrity. The only area in which participants rated online courses as “less effective” than face-
to-face courses was “Interaction with students during class”.

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DLC Participant Questionnaire

Faculty perceptions, or the degree to which participants found the program valuable and relevant to their jobs, were measured through the DLC participant questionnaire. Perceptions were evaluated in relation to the major program characteristics and general satisfaction.

Program characteristics. Faculty perceptions were assessed in relation to the program’s major characteristics including expectations and resources, collaboration with a learning designer, and the online companion course, DYOC. Faculty perceptions of the program’s characteristics are summarized in Table 5.

Table 5. Perceptions of DLC Program Characteristics

<table>
<thead>
<tr>
<th>Program Characteristic</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expectations and Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The goals of the DLC program were clearly defined.</td>
<td>15</td>
<td>4.87</td>
<td>0.35</td>
</tr>
<tr>
<td>The development timeline of the DLC program was clearly articulated.</td>
<td>15</td>
<td>4.73</td>
<td>0.45</td>
</tr>
<tr>
<td>The roles of the course development team were clearly articulated.</td>
<td>15</td>
<td>4.47</td>
<td>0.74</td>
</tr>
<tr>
<td>The DLC program provided materials, examples, and resources that were relevant to me as an online instructor.</td>
<td>15</td>
<td>4.67</td>
<td>0.48</td>
</tr>
<tr>
<td>Overall Means</td>
<td></td>
<td>4.69</td>
<td>0.51</td>
</tr>
<tr>
<td><strong>Collaboration with learning designer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My learning designer shared information to help me visualize course development processes and outcomes.</td>
<td>15</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td>My learning designer provided me with effective feedback and recommendations on my instructional materials.</td>
<td>15</td>
<td>4.93</td>
<td>0.25</td>
</tr>
<tr>
<td>My learning designer devoted time to establishing a good rapport with me.</td>
<td>15</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td>My learning designer facilitated my learning about online course design best practices.</td>
<td>15</td>
<td>4.87</td>
<td>0.35</td>
</tr>
<tr>
<td>My learning designer facilitated my learning about online quality standards.</td>
<td>15</td>
<td>4.87</td>
<td>0.35</td>
</tr>
<tr>
<td>Overall Means</td>
<td></td>
<td>4.93</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>Online Companion Course (DYOC)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The online companion course was organized and easy to follow.</td>
<td>15</td>
<td>3.93</td>
<td>0.88</td>
</tr>
</tbody>
</table>
The content and resources provided were helpful to the design and development of my online course.  
I found value in participating in the learning community.  
The companion course complemented the program overall.  

Overall Means

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The content and resources provided were helpful to the design and development of my online course.</td>
<td>3.93</td>
<td>0.96</td>
</tr>
<tr>
<td>I found value in participating in the learning community.</td>
<td>3.87</td>
<td>0.99</td>
</tr>
<tr>
<td>The companion course complemented the program overall.</td>
<td>3.93</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Overall, faculty participants had positive perceptions of the major program characteristics. Findings from each characteristic are detailed below.

*Expectations and resources.* Faculty participants had positive perceptions of the program’s expectations and resources, which involved defining the program’s goals along with clearly articulating the development timeline, and roles of the development team. Within this characteristic, participants rated program goals the highest with a mean score of 4.87 out of 5 ($SD = 0.35$). Overall, the mean score for expectations and resources was 4.69 ($SD = 0.51$).

*Collaboration with learning designer.* Of the major program characteristics, faculty scored collaboration with a learning designer the highest with an overall mean of 4.93 ($SD = 0.19$). In fact, all faculty participants ($n = 15$) rated two components of this characteristic with a mean score of 5 ($SD = 0.00$), indicating that they “strongly agreed” that their learning designer shared information that helped them visualize course development processes and devoted time to establishing a good rapport with them. This finding is also consistent with the qualitative data described below.

*Online companion course.* Although faculty perceptions of the online companion course were still generally positive, this program characteristic, which involved the use and participation of Designing Your Online Course (DYOC), had the lowest overall mean score of 3.92 out of 5 ($SD = 0.94$). All means within this characteristic were fairly consistent with the lowest score ($M = 3.87; SD = 0.99$) being attributed to participation in the learning community within DYOC.
**General satisfaction.** Participants were also asked to rate their general satisfaction with the DLC program and their online course that was developed as a result of their participation. Overall perceptions of the DLC program are presented in Table 6.

Overall, faculty participants were satisfied with the program, which was evident by the overall mean score of 4.85 out of 5 ($SD = 0.40$). Three out of four mean scores within general satisfaction were rated 4.87, indicating that faculty participants were satisfied with the program overall and would develop another online course through the program.

**Table 6. General Satisfaction of DLC Program**

<table>
<thead>
<tr>
<th>General Satisfaction of DLC Program</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would recommend the DLC program to my colleagues who are thinking about developing an online course.</td>
<td>15</td>
<td>4.80</td>
<td>0.41</td>
</tr>
<tr>
<td>I would develop another online course through the DLC program.</td>
<td>15</td>
<td>4.87</td>
<td>0.51</td>
</tr>
<tr>
<td>I am satisfied with my online course that was developed through the DLC program.</td>
<td>15</td>
<td>4.87</td>
<td>0.35</td>
</tr>
<tr>
<td>I am satisfied with the DLC program overall.</td>
<td>15</td>
<td>4.87</td>
<td>0.35</td>
</tr>
<tr>
<td><strong>Overall Means</strong></td>
<td></td>
<td>4.85</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Among the 15 participants, 13 (87%) “strongly agree” that they were satisfied with their online course and 12 (80%) “strongly agree” that they would recommend the program to their colleagues who were considering online course development.

**Semi-Structured Interviews**

After analyzing the quantitative data for research question one, the researcher reviewed the data collected from the semi-structured interviews and used constant comparative analysis to group similar and different pieces from the open-ended questions and interview transcripts. After two holistic readings of the data, open coding was used to create 21 preliminary categories. After a third review, axial coding was used to combine categories and create five main themes:
1) Learning design support, 2) Ability to learn and apply, 3) Time intensive planning, 4) Plan for time needed, and 5) Approach with open mind. Table 7 summarizes the faculty participants’ perception themes.

**Table 7. Participant Perception Themes**

<table>
<thead>
<tr>
<th>Learning design support</th>
<th>Ability to learn/apply</th>
<th>Time intensive planning</th>
<th>Plan for time needed</th>
<th>Approach with open mind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration on learning materials</td>
<td>Improved teaching/ learning</td>
<td>Course map</td>
<td>Needing time for quality course design</td>
<td>Be open-minded</td>
</tr>
<tr>
<td>Course design expertise</td>
<td>Linking materials to objectives</td>
<td>Syllabus</td>
<td>Needing time for potential learning curves</td>
<td>Embrace collaboration</td>
</tr>
<tr>
<td>Content development</td>
<td>Rubrics</td>
<td></td>
<td></td>
<td>Will enhance course</td>
</tr>
<tr>
<td>Praise for team</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fourteen out of fifteen participants mentioned “Learning design support” when discussing the most valuable aspect of the DLC program. “Learning design support” includes collaboration on learning materials, course design expertise, content development, and general praise for the course development team. This finding is consistent with the existing literature that faculty strongly prefer working one-on-one with learning design experts (Grover et al., 2016). The majority of participants specifically mentioned the learning designer they collaborated with and the expertise their designer brought to the partnership. Participants described the learning designers as “professional”, “knowledgeable”, “responsive”, “patient”, and “flexible.” Beyond praise for the learning designers, many participants honed in on the collaborative nature of the program. They described the interactions they had with the designers
and acknowledged the roles that each person brought to the team. One participant, who had developed multiple online courses through the DLC program, said:

For me, the most valuable part of the process was being able to rely on the trust established with the learning design team and knowing that the collaboration was rooted in all of us understanding the expertise people bring to the table. (Participant 1, personal communication, January 6, 2021).

The participants also described the artifacts that were created for their online courses and the collaborative brainstorming that occurred throughout the program as a result. One participant commented, “I think instructors (including myself) don’t realize that a good designer can actually make your presentation better than what you can do in a face-to-face course.” (Participant 6, personal communication, January 25, 2021). Figure 4 depicts two artifacts from an interactive presentation that were created by the course development team in order to gauge student comprehension.

**Figure 4. Interactive Presentation Artifacts.**

*Interactive presentation artifacts developed during the Fall 2020 DLC cohort.*
Another participant, who had also developed multiple courses through the DLC program, described how the collaboration enabled him to consider new ideas for content development. He said:

They [learning designers] took my ideas and made them better and more interconnected. So I really appreciated the insights that I didn't have. Not just the doing part of it but the actual brainstorming part of it. That's the part I found really helpful because after having conversations with my designer, I would be like, wow, okay. I didn't realize that was possible. Then I started thinking in an entirely new direction. (Participant 4, personal communication, January 5, 2021).

The next theme, “Ability to learn and apply” was also identified in the responses when asking participants about their favorite part of the DLC program. Although learning will be further evaluated within the context of research question two, this theme includes improved teaching and learning and linking the course materials to objectives. When discussing their favorite aspects of the program, the majority of the interview participants described their own learning and how they were able to take that knowledge with them after the program was complete. One participant responded, “Knowing how to configure your course so that students get the most out of it and are meaningfully engaged is something I have taken with me” (Participant 4, personal communication, January 5, 2021). Another participant, who was new to the DLC program and the online environment in general, described how she viewed the program as a learning experience in an effort to improve other courses she teaches. She said, “I always looked at this as a learning opportunity. My favorite part was finding this outside support and knowing I can fall back on what I’ve learned and apply it to other places” (Participant 10, personal communication, November 16, 2020).
Faculty participants also explained how the program allowed them to reflect on their own course materials including the connection to the course objectives and student learning outcomes. In fact, one participant suggested that the program should include face-to-face courses as most instructors tend to lecture on specific topics and are less focused on learning outcomes. She stated, “I think if anything, it just shows how good of a process it is to improve teaching and learning in general” (Participant 10, personal communication, November 16, 2020). This finding directly relates to the existing research that most faculty have extensive training in their discipline but often lack training in the pedagogical approaches to teaching (Baldwin, 2019; McKee & Tew, 2013; Schmidt et al., 2016). Another participant, who had developed previous online courses through the DLC program, described how the program enabled her to think in a way that made her more effective as an online instructor. She said, “You’re forced to understand exactly what you’re trying to teach. When you’re in a classroom, you have a topic and hope something sticks whereas it’s a much more deliberate process when you do it online.” (Participant 8, personal communication, November 2, 2020).

The next theme, “Time intensive planning” was found in seven out of seven interview responses when asking participants about their least favorite part of the DLC program. “Time intensive planning” includes the completion of course planning documents such as the course map, syllabus, and rubrics. Three participants specifically mentioned the course map, which is a detailed plan for the course that that outlines all instructional materials and their alignment to the student learning outcomes. One participant stated, “I personally think the course map is helpful. Is it a pain to fill out? Yes, but I totally see the value in it. It lays out your course” (Participant 7, personal communication, January 12, 2021). Figure 5 depicts a course map that illustrates the instructional alignment between module-level learning outcomes and instructional materials.
Although the remaining interview participants described their experiences with other planning documents, all perceptions were similar. Faculty participants viewed the documents as valuable although tedious and time consuming to complete.

Figure 5. Course Map Artifacts

Course map artifacts developed during the Fall 2020 DLC cohort.

The final two themes, “Plan for time needed” and “Approach with open mind” were both identified when participants were asked to offer advice to other faculty considering the DLC program. “Plan for time needed” includes needing time for quality course design and potential learning curves. Five out of seven participants discussed time or lack thereof and advised new participants not to underestimate the time needed to develop a high-quality online course. One participant said, “I feel very proud of the course. We were able to put together a really good course but having the time to do it is extremely, extremely important.” (Participant 12, personal communication, November 5, 2020). Another participant discussed needing time to adapt to the technology. He stated, “You’re going to have to devote some time to learning stuff, figuring things out, especially for folks who are not tech savvy” (Participant 4, personal communication,
January 5, 2021). It is somewhat surprising that technology, which fell into the theme of “Plan for time needed”, was only mentioned by one faculty participant although it was a major concern of faculty identified in the existing literature (Hunt et al., 2014; Jaschik & Lederman, 2018).

The fifth theme, “Approach with open mind,” was found in four out of seven interview responses. This theme, which includes being open-minded, embracing collaboration, and knowing it will enhance your course, proved particularly interesting as several participants revisited the collaboration between them and their learning designer. One participant said:

You have got to go into this with an open mind. They [the learning designers] will remind you that you're the expert in the field, but they are the expert in online learning. So be open to that. Be open to them making your work go from great to fabulous. The biggest thing is being open to the workload and to the creativity the team has to offer (Participant 8, personal communication, November 2, 2020).

Another participant, who was new to the DLC program but had previous experience teaching online, described being educated by his designer and having to acknowledge the expertise that each person brings to the collaboration. He said, “I think having an open mind and checking your ego at the door when it comes to the suggestions plays into the whole collaborative effort” (Participant 3, personal communication, December 15, 2020). Another participant discussed how the program could benefit faculty teaching in other modalities. When offering advice to new faculty developers, she said, “I’d say absolutely do it. It [the DLC program] will help with in-person classes, online classes. It’s just going to make your class better” (Participant 7, personal communication, January 12, 2021).

**Post program perceptions of online learning.** Interview participants were also asked to discuss their post-program perceptions of online learning and whether their participation in the
program had an impact on any perceived changes. Although all participants had generally positive perceptions of online courses, several interview participants admitted to having some negative perceptions early on in the program and/or a lack of experience with online learning. One participant said, “I don’t think that my original conception of online learning accounted for the capacity of technology that allows me to connect with my students” (Participant 5, personal communication, January 14, 2021). Other participants described common misconceptions of online learning. One participant said, “It gets frustrating because administration thinks online courses are easier to teach and students think online courses are easier to take and that’s completely the opposite from both sides” (Participant 7, personal communication, January 12, 2021). Another participant, who had developed several online courses through the DLC program, described the negative views of online learning within his department. He said, “I think a lot of the faculty in our department have sort of a dim view of online learning. It’s sort of an inferior way of teaching. Face-to-face is just of a higher quality” (Participant 4, personal communication, January 5, 2021).

Post-program perceptions of online learning were noticeably different with many participants describing their own shift in perspective. One participant said:

So the big thing for me was learning that online learning can be just as effective and engaging and interactive as a classroom. And in some cases, I came away feeling like the interaction that can be facilitated online is better then you could have in a classroom. There really was a science behind it. There's really a lot of thought and thinking, and when it's done well, it can be done really well. (Participant 4, personal communication, January 5, 2021).
The majority of the interview participants had similar sentiments and even made comparisons to their face-to-face courses, which was consistent with the literature that faculty adapt through assimilation (Baldwin, 2019; Schmidt et al., 2013). Another participant commented, “Just seeing all of the new possibilities to keep students engaged and all the improvements and things that we can do now, then I certainly think there’s a place for online learning” (Participant 7, personal communication, January 12, 2021).

**Research Question Two**

Research question two, which also aligns with Level 2 of Kirkpatrick’s training evaluation model, is focused on learning or the degree to which participants acquired new skills and/or knowledge based on their participation in the program. Participant learning was primarily measured through design activity assessments and semi-structured interviews.

**Design Activity Assessments**

Participant learning was initially assessed through design activity assessments including end-of-phase knowledge checks and the final quality evaluation.

**End-of-phase knowledge checks.** End-of-phase knowledge checks were brief, formative assessments implemented at the end of the first three phases of the DLC program. Each knowledge check contained five multiple-choice questions, with each correct answer corresponding with one point. Participation in the knowledge checks was relatively low with only six \((n = 6)\) faculty participating overall.

Despite low participation, faculty participants scored relatively high on each of the knowledge checks. The third knowledge check, which gauged learning on the three types of
interaction and tools to facilitate communication and collaboration, resulted in the highest mean score of 4.13 out of 5 ($SD = 1.24$). Mean scores from each knowledge check are shown in Table 8.

<table>
<thead>
<tr>
<th>Knowledge Check Assessments</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Check 1: Planning &amp; Analysis</td>
<td>6</td>
<td>4.08</td>
<td>0.49</td>
</tr>
<tr>
<td>Objectives/alignment, instructional modes, LMS tools for organization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Check 2: Design &amp; Prototype</td>
<td>4</td>
<td>3.56</td>
<td>1.14</td>
</tr>
<tr>
<td>Instructional strategies, content development tools, principles of multimedia, UDL, accessibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Check 3: Development</td>
<td>2</td>
<td>4.13</td>
<td>1.24</td>
</tr>
<tr>
<td>Types of interaction, tools for communication/collaboration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Means</td>
<td></td>
<td>3.92</td>
<td>0.96</td>
</tr>
</tbody>
</table>

The second check, which resulted in the lowest mean score of 3.56, assessed participant learning on instructional strategies, content development tools, principles of multimedia, Universal Design for Learning (UDL), and accessibility. The overall mean score for all three knowledge checks was 3.92 out of 5 ($SD = 0.96$) indicating that participants were relatively familiar with many of the learning design and online best practices and principles. Although the knowledge checks did not prove to be the most useful source of data collected, it did provide information that was later expanded upon during the semi-structured interviews.

**Quality evaluation.** Another data source for measuring participant learning was the final quality evaluation conducted during the last phase of the DLC program. All 17 online courses developed through the Summer and Fall 2020 cohorts of the DLC program achieved overall quality scores of 100 points (out of 100) and high-quality designations per the statewide course design quality review process (Distance Learning and Student Services, 2020). The evaluations were based on QM’s Higher Ed Rubric, which includes 42 specific review standards focused
around eight general standards pertaining to course overview and introduction, learning objectives, assessment and measurement, instructional materials, learning activities and learner interaction, course technology, learner support, and accessibility and usability (Standards from the Quality Matters Higher Education Rubric, Sixth Edition).

Although these findings are impressive from a quality course design perspective, they also indicate that participants were receptive to the learning designers’ feedback and course design recommendations made throughout program and were able to apply these standards to their own online courses.

In addition to the natural research setting in which three learning designers conducted independent reviews of the courses and combined their efforts to determine the final quality evaluation score, a small pilot exercise was also conducted to further integrate faculty into this process. This exercise involved four faculty participants who completed self-assessments of their online courses. Their assessments, which involved an abridged version of QM’s Higher Ed Rubric, provided them with an opportunity to reflect on their courses and provide examples and evidence of how the quality standards were achieved. This pilot exercise, which will be more fully implemented in future DLC cohorts, demonstrated that participants gained a strong understanding of the quality standards throughout the course development program and could clearly articulate evidence for how the standards were met. Because the statewide course design quality review process requires three trained reviewers to evaluate each course, the eventual goal is to include faculty course developers as one of the reviewers who will serve as the subject matter expert (Distance Learning and Student Services, 2020).
Semi-Structured Interviews

After analyzing the quantitative data for research question two, the researcher reviewed the data collected from the DLC Participant Questionnaire and the semi-structured interviews and used constant comparative analysis to group similar and different pieces from the open-ended questions and interview transcripts. After two holistic readings of the data, open coding was used to create 18 preliminary categories. After a third review, axial coding was used to combine categories and create three main themes: 1. Learning design/online best practices and principles, 2. Course design framework, and 3. Use of technology to develop/deliver content. Table 9 summarizes the faculty participants’ learning themes.

Table 9. Participant Learning Themes

<table>
<thead>
<tr>
<th>Learning design/online best practices and principles</th>
<th>Course design framework</th>
<th>Use of technology to develop/deliver content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chunking</td>
<td>Systematic framework</td>
<td>Tools/technology</td>
</tr>
<tr>
<td>New formats of content delivery</td>
<td>Course mapping</td>
<td>Impact of technology on pedagogy</td>
</tr>
<tr>
<td>Objectives and alignment</td>
<td>Design planning</td>
<td></td>
</tr>
<tr>
<td>Opportunities for practice and feedback</td>
<td>Design structure/organization</td>
<td></td>
</tr>
<tr>
<td>Strategies for engagement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality standards</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fourteen out of fifteen participants mentioned “Learning design/online best practices and principles” when discussing what they learned during the DLC program. This theme includes chunking, new formats of content delivery, objectives and alignment, opportunities for practice and feedback, strategies for engagement, and quality standards. Six participants discussed the process of chunking their instructional content. Chunking is a widely used practice in online learning known to reduce cognitive load (Clark & Mayer, 2016; Mayer & Pilegard, 2014;
Mendez-Carbajo & Wolla, 2019). One participant said, “I learned to keep my videos short and chunk them into bite sized pieces” (Participant 5, personal communication, January 14, 2021). Another participant replied, “I learned to condense a video down to fifteen minutes to where students really get what they need” (Participant 3, personal communication, date). Other participants described being introduced to new formats of content delivery. One participant commented, “Learning about other resources really forced me to think about new ways I could deliver the content other than just narrated PowerPoints” (Participant 7, personal communication, January 12, 2021). This participant worked closely with their learning designer to create interactive knowledge checks that promoted student engagement and student comprehension (See Figure 6).

**Figure 6.** Interactive Content Artifacts

*Interactive content artifacts developed during the Fall 2020 DLC cohort.*

Another common response from faculty participants regarding their learning was objectives and instructional alignment. In fact, six participants discussed the importance of alignment and how the program facilitated their learning in that area. One participant, who was new to the DLC program, said:
I really liked how we approached the objectives to make sure that what we plan to do is what we actually do through the lectures, the presentations, the assignments, and the assessments. I felt like I learned a lot with that aspect of things, making sure those outcomes and objectives were being covered. (Participant 3, personal communication, December 15, 2020).

Several participants described learning new strategies for student engagement, which is an interesting finding as it extends beyond course design and into facilitation. One participant said, “The program helped me to think creatively about keeping students engaged, especially in the online environment” (Participant 7, personal communication, January 12, 2021). Another participant commented, “Putting myself in the learner’s shoes is something I’ve learned to do more of. I think we do some of that when we’re in the classroom but the program puts you in that mindset” (Participant 8, personal communication, November 2, 2020).

The second theme, “Course design framework” was found in six participant responses. This theme, which includes systematic framework, course mapping, design planning, and design structure/organization, started to reveal how participants were able to apply what they learned to other teaching contexts, which is the primary focus of research question three. Several of the responses within this theme included the word “systematic,” with participants describing how the program enabled them to approach the development in a purposeful and organized manner. One participant said, “Most of the time, I was very systematic, but this [the DLC program] took it to another level” (Participant 12, personal communication, November 5, 2020). Another participant, who was new to the DLC program and online teaching, explained how the program enabled her to think more holistically when planning the design of her course. She said, “Going through this process opened up so many gaps that I didn’t realize I had because I had not
approached it in this way before” (Participant 10, personal communication, November 16, 2020). A third participant described the benefits of course design more generally. She said, “I really saw the benefit of designing my course. Instead of just putting an announcement out, I learned that I can have that information in multiple places, which will hopefully cut down on the amount of questions I get from students” (Participant 7, personal communication, January 12, 2021).

Figure 7 illustrates how important course information such as the Getting Started Module and module overviews can be presented throughout the course to better inform online students.

![Figure 7](image)

**Getting Started Module Overview Artifacts**

* Getting started and module overview pages developed during the Fall 2020 DLC cohort.

The third theme, “Use of technology to develop/deliver content” was found in seven participant responses. This theme includes tools and technology and the impact of technology on pedagogy. Most of the responses within this theme were centered around specific tools used for content development including Camtasia, a screen recorder and video editor, and Kaltura, a video hosting platform. Several participants described learning new techniques and best practices for creating video-based instructional materials and opportunities for student-to-student...
collaboration. One participant said, “My video lectures are much more effective having done this. One of the things I learned and have gotten better about doing is not timestamping my videos in a way that will make them awkward for a future use” (Participant 5, personal communication, January 14, 2021). In addition to best practices for using technology, participants also described the pedagogical impacts of technology on their teaching. One participant responded, “I have learned that technology can be effectively used to improve a typical face-to-face presentation, greatly freeing up class time and making it easier to have a flipped class” (Participant 6, personal communication, January 25, 2021).

**Research Question Three**

Research question three focused on how faculty participants transferred their learning from the program to other teaching contexts. This was measured through the DLC Participant Questionnaire and semi-structured interviews, which were also guided by the training input factors identified in Baldwin and Ford’s (1988) transfer process model.

**DLC Participant Questionnaire**

Of the four open-ended questions in the DLC Participant Questionnaire, one was related learning transfer and the application of skills and knowledge gained from the program to other courses the participants were teaching. These were combined with the responses from the semi-structured interviews and were analyzed collectively using constant comparative analysis. After two holistic readings of the data, open coding was used to create 34 preliminary categories. Axial coding was then used to combine categories and create ten themes. Each theme is
discussed below in relation to the three training inputs. Participant transfer themes are presented in Table 10 and organized by training input.

**Semi-Structured Interviews**

**Trainee characteristics.** Three themes were identified within the training input of trainee characteristics: 1) Course enhancements, 2) Student demand, and 3) COVID-19.

**Table 10.** Participant Transfer Themes by Training Input

<table>
<thead>
<tr>
<th>Trainee characteristics</th>
<th>Training design</th>
<th>Work environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course enhancements</td>
<td>Collaborative brainstorming</td>
<td>Apply design framework</td>
</tr>
<tr>
<td>Student demand</td>
<td>Course planning documents</td>
<td>Utilize technology to enhance student experience</td>
</tr>
<tr>
<td>COVID-19</td>
<td>DYOC</td>
<td>Barriers/promoters to application</td>
</tr>
</tbody>
</table>

Faculty participants were asked about their motivations for developing their online courses and two themes quickly emerged: “Course enhancements” and “Student demand”. Five out of seven interview participants mentioned “Course enhancements”, which includes updating courses, increasing quality, and COVID-19. Although COVID-19 was not the main motivation for any of the faculty participants, it was briefly mentioned in two responses as “accelerating” the plan to bring the courses online. Instead, the majority of participants described the enhancements needed to their courses whether it was bringing a course into the 21st century, updating outdated technology, making the course more interactive, or merging the curriculum of two courses into one. The second theme, “Student demand” was also an important motivator for several of the participants. Four out of seven participants mentioned “Student demand”, which includes the need to increase enrollment and using the course as a prerequisite. Three
participants described needing to develop their courses to alleviate student demand and increase enrollment while three other participants discussed the importance of developing prerequisite courses as pipelines into other programs. One participant said, “This course is extremely important because it’s a prerequisite for applying to the BSW program so it’s a pipeline for us” (Participant 12, personal communication, November 5, 2020).

Participants were also asked if any external factors impacted the outcome of the program for them and one theme was overwhelmingly identified: “COVID-19”. Participants discussed being impacted by COVID-19 both professionally and personally. Although only one participant discussed the personal impacts of COVID, the majority of participants described how the pandemic negatively impacted their time, and in one case, the development of course content. One participant said:

Each week we featured a different guest lecturer and we launched this concept at the beginning of the development in early 2020. Then COVID hit and no one could come to campus to do the recordings. Although we continued them in a virtual format, there was a clear difference in quality. (Participant 5, personal communication, January 14, 2021).

Another participant described how COVID-19 prompted her to enhance the design of her other courses, both online and face-to-face. She commented, “I taught online before and with the rapid transition of all my courses, it just became apparent that both my in-person classes and my online classes could be structured in a much better way” (Participant 7, personal communication, January 12, 2021).

**Training design.** Three overarching themes were identified within the input of training design including: 1) Collaborative brainstorming, 2) Course planning documents, and 3) DYOC.
Because collaboration is such a critical component of the DLC program, it was not surprising that the first theme identified in six out of seven responses was “Collaborative brainstorming”. Participants described how their courses benefitted from the collaborative nature of the program and often used words like “synergy”, “fluid”, and “camaraderie” when describing the relationship with their learning designer. One participant said, “I would not have been able to do the course in the way it is being done now if it wasn’t for the collaborative nature” (Participant 12, personal communication, November 5, 2020). Other participants detailed the brainstorming sessions and described how new ideas were generated throughout the program. One participant said, “There’s a very fluid process where I’ll share my vision for the course and they provide feedback and ideas on how to make it work. That collaboration was invaluable” (Participant 4, personal communication, January 5, 2021).

Another participant detailed how the collaboration among the course development team led to some creative multimedia solutions. For example, the students in her course utilized a textbook that focused on six complex mindsets. Instead of various references to the textbook, the course development team collaborated to create a custom multimedia interaction that allowed students to hone in and engage with each mindset (see Figure 8). The participant said, “It’s just such an effective summary tool that encompasses the full book and will allow students to take these concepts with them” (Participant 8, personal communication, November 2, 2020).
The second theme found in training design was “Course planning documents”. This theme, which was identified in five responses, included the course map, tracking and communication, the timeline infographic, and the quality rubric. These resources were found to be the most useful to faculty participants with the course map being discussed most frequently. One participant said, “I would say the map gave me the vision of how to approach the development process” (Participant 3, personal communication, December 15, 2020). Other resources that were mentioned were the timeline infographic and the QM Higher Ed Rubric. Two participants discussed how the timeline helped to keep them focused throughout the program. One participant said, “I think the timeline really helped me to understand the magnitude because one of the big things I don’t think people understand is the amount of time and effort that goes into doing this right” (Participant 8, personal communication, November 2, 2020). The other commonly discussed resource was the quality rubric. Two participants described the rubric as being a useful resource that gave them an extra boost of confidence. One participant said, “I really liked having the rubric because I was able to think about things as I
went through it. It made me very thoughtful in what I was doing as opposed to me just kind of knowing” (Participant 7, personal communication, January 12, 2021).

The third theme identified in training design was “DYOC”. All faculty discussed their experience in using the online companion course, although several participants admitted to not having enough time to fully take advantage of this resource. Three out of seven interview participants said that the materials in the course were useful and that they plan to use them in the future, but that they were under too much of a time constraint to fully use them during the program. One participant even described how COVID-19 played a role for her in utilizing the course. She said, “I think a lot of people are starting to experience COVID burnout. We’re starting to find some balance but it’s a feeling of how much longer can we do this? I think if this was Fall last year, the course would have worked really well for me” (Participant 8, personal communication, November 2, 2020). Two other participants described navigating the course but not relying on it heavily. One participant, who had previously participated in the program, mentioned that the course was useful but that she already knew a lot of the information presented. Of the two participants that did use the course heavily, one said they used it as a refresher while the other commented that they used it as a learning tool and found value in the community discussions. One participant even suggested expanding the learning community further to help faculty engage in broader conversations about online learning. She said, “I think there’s a lot of us that take value from you and could help be a catalyst, if you will, in these kinds of discussions” (Participant 8, personal communication, November 2, 2020). Despite low participation in DYOC, participants provided valuable feedback on their experience, which will help to implement future iterations of the companion course. See Figure 9 for DYOC artifacts.
including the companion home page and two course pages showcasing content samples and visual aids.

**Figure 9.** Designing Your Online Course Artifacts

![Diagram showing course design elements and flow]

*Companion home page and instructional artifacts depicted from DYOC.*

**Work environment.** Four themes were identified within the work environment training input: 1) Apply design framework, 2) Utilize technology to enhance the student experience, 3) Barriers to application, and 4) Promoters of application.

The first theme “Apply design framework” was found in seven participant responses. Faculty were asked how they applied the knowledge and skills obtained from the program to other courses they were teaching. All seven participants described how they used a similar design approach when working on other courses, both face-to-face and online. One participant said, “I used the fundamentals of how this course was developed and applied it to another course I was teaching. If you reverse engineered that course, you could see the course map in the framework of how I developed it” (Participant 3, personal communication, December 15, 2020). This particular example demonstrates how course mapping, a strategy learned within the DLC program, was later transferred to another course to facilitate curriculum development. Another
participant, who was new to the DLC program and online teaching, described how her process for curriculum development shifted since participating in the program. She said, “We never had a systematic approach. This time, I used the same approach that I went through with you and it’s working well for me because I am locking in on the learning outcomes” (Participant 10, personal communication, November 16, 2020). In describing how they were applying the design framework, several participants mentioned the course map and how they utilized the same principles of instructional alignment to ensure that their course materials aligned with the student learning outcomes.

Faculty also honed in on the importance of course design and described how good design could be transfer to other courses, even in varying modalities. One participant, who was also new to the DLC program, commented, “I am much more sensitive to how my course is structured and how you need to present the materials and modules in a consistent manner” (Participant 13, personal communication, January 14, 2021). Another participant said, “I’ve used the same approach in all my courses. There’s no reason why I would do it differently for my live class than my online class because all the materials are there. It’s very well structured” (Participant 7, personal communication, January 12, 2021). Both of these examples show how the course design framework, facilitated by the course map, could be applied to other courses to ensure ease of use for students. Another participant, who had developed several courses through the DLC program, described how the design framework impacted her pedagogical approach. In fact, she explained how she presents digestible pieces of content to students and strives for interactivity within her lectures. She said:

I don’t lecture for very long anymore. I used to go in with a deck of 25 slides and now it’s more like six or seven. It’s much more interactive and I would say that my approach
is heavily influenced by the online courses I’ve developed. Your department fundamentally changed the way I teach and the way I think about teaching. That mindset has changed (Participant 8, personal communication, November 2, 2020).

The second theme, “Utilize technology to enhance the student experience” was found in seven responses. The majority of participants described being introduced to new technologies and discussed how they applied them in other courses to promote student engagement, interaction, and communication. One participant explained how his technical skills improved after the program and enabled him to create more effective and accessible videos. He said, “I make sure all my videos have transcripts and I’m much better at recording and editing now. Even the videos I record on my own are much more effective having gone through this process” (Participant 5, personal communication, January 14, 2021). Other participants discussed how they leveraged technology to enhance communication and interaction between students. One participant said, “My communication is richer because of the suggested idea of having an email go out to summarize what’s going on that week. I also added introductory videos (See Figure 10) to all my modules, which I do for all my courses now” (Participant 8, personal communication, November 2, 2020). Another participant described how a suggested approach from her learning designer impacted her use of technology. She explained how several of her assessments were reimagined into videos quizzes, allowing her students to reflect on real-world scenarios. She said, “That wouldn’t have even been on my radar so it was invaluable to have people who can see other possibilities for what you’re trying to do” (Participant 8, personal communication, November 2, 2020). All of these examples demonstrate the variety of ways in which faculty participants transferred their learning from the program to their own work environments.
Although technology was the focus of this theme, participants also explained the importance of using the right blend of technology and ensuring that it does not overshadow the learning. For example, one faculty participant was introduced to Flipgrid, a video-based discussion platform, while participating in the program. Although she did not utilize this tool within the course she developed, she described how she planned to use it within another course to promote student-to-student interaction. She said, “The [DLC] process opened my eyes to new technologies but at the right amount. I believe that the technology should never take over the learning and we achieved a nice balance that I plan to continue in my other courses” (Participant 12, personal communication, November 5, 2020).
Although participants were clearly able to articulate how they were applying the skills and knowledge obtained from the program to other courses they were teaching, they also detailed several barriers and promoters to their transfer of learning. The third and fourth themes identified in the responses were “Barriers to application” and “Promoters of application”.

Faculty participants described several barriers to their application of learning, most of which were related to institutional issues. Two participants discussed the realities of working in a preeminent state research university where expectations to conduct research were high. One participant said, “I would worry about sending one of our junior faculty members through the program because at the end of the day, they’re going to assess her research and the demands on her time are enormous” (Participant 5, personal communication, January 14, 2021). Other participants described cultural barriers such as “siloed teaching” and being trained in the “lecture format”. One participant commented, “Faculty members are trained to lecture so it’s very hard to get out of that mindset. The extent to which this program can lift the burden of course development and allow us to be innovative is a huge benefit” (Participant 3, personal communication December 15, 2020). Two other participants described the negative perceptions of online learning within their departments and other faculty who are resistant to change. One participant said, “Any time you’re trying to innovate, there is always resistance. And because some people still think online is lower quality, you have to combat that kind of thinking” (Participant 10, personal communication, November 16, 2020).

On the other hand, faculty also described several promoters of their learning including supportive departments, having more time to dedicate to teaching, and the ability to reflect upon their own teaching practices. Although two participants described negative perceptions of online learning within their departments, the majority of participants discussed having “supportive
One participant detailed how teaching online allowed her to focus more on facilitation. She said, “I find that I have more time to respond to my students in a very detailed way because I’m not worried about my lecture for the week” (Participant 8, personal communication, November 2, 2020). Another participant, who was new to the DLC program, discussed how the program contributed to his own philosophical approach to teaching. He said, “I’ve taken elements from this experience and applied them to the forefront of my approach. While some things might seem fundamental like ensuring students come away with the intended outcomes, I think sometimes those things fly under the radar” (Participant 3, personal communication, December 15, 2020).

Summary

This chapter presented the findings from this explanatory single-case study. Qualitative and quantitative data revealed how faculty participants perceived the DLC program, what they learned throughout the program, and how they transferred their knowledge and skills to other courses they were teaching. The study’s findings were organized within the framework of Kirkpatrick’s training evaluation model and further analyzed through the lens of Baldwin and Ford’s (1988) transfer process model.
CHAPTER FIVE:

DISCUSSION

Introduction

This study evaluated the Digital Learning Collaborative program in an effort to understand how faculty perceived the program, what they learned as a result of the program, and how they transferred their learning to other educational contexts. Specific factors that impacted their transfer were identified in Chapter 4 and are summarized below. This chapter presents an overview of the study, its purposes, and research methods. Practical implications of the findings are discussed including specific recommendations for learning design staff, higher education leadership, and faculty seeking effective models for online course development. Finally, areas for further inquiry and suggestions for future research are discussed.

Problem Summary

Although there is a growing amount of research that supports collaborative models of course design, there are few studies that evaluate these models and even fewer that consider the far-reaching benefits of these faculty development programs. As faculty are being increasingly asked to teach in varying modalities to meet student demand, there is no longer a clear division between online and face-to-face instruction. Therefore, it is critical that online course development programs are purposefully evaluated to understand if the skills and practices
obtained within them can be transferred to improve teaching practices in other instructional settings.

**Overview of Study**

The purpose of this study was to evaluate the DLC program based on Kirkpatrick’s four-level training evaluation model. In this study, the first three levels of evaluation were conducted to understand how faculty perceived the DLC program, what they learned as a result of the program, and how they transferred their learning to other teaching contexts. Evaluation data were collected from faculty participants in order to draw conclusions regarding their perceptions, learning, and learning transfer.

DLC was a cohort-based program rooted in collaboration between faculty course developers and experienced learning designers. During the semester-long program, the course development team including video producers, multimedia developers, and faculty support professionals, worked in partnership to create student-centered, high-quality online courses.

As described in Chapter 3, three data collection techniques were used in this study including questionnaires, semi-structured interviews, and ready-made design activity assessments that were part of the natural research setting. All faculty participants were asked to complete two questionnaires (one focused on their online experience and the other focused on their perceptions and learning transfer) at the beginning and end of the program. Seven faculty developers were also invited to participate in semi-structured interviews in order to gain an in-depth understanding of their perceptions, learning, and learning transfer.

Quantitative data were collected and analyzed using descriptive statistics. Qualitative data were collected and analyzed using the constant comparative method in order to identify and
refine major themes of interest in relation to the first three levels of Kirkpatrick’s training evaluation model and Baldwin and Ford’s (1988) transfer process model.

Summary of Findings

Both quantitative and qualitative analyses methods were used in this study. Descriptive statistics showed total and mean scores for participant perceptions of program characteristics (expectations and resources, collaboration with learning designer, and online companion course) and general satisfaction, in addition to mean scores of participant knowledge checks to gauge learning.

Three holistic readings of the qualitative data were completed using constant comparative analysis. After the first two readings were conducted, open coding was used to combine categories of interest. During the third reading, axial coding was used to combine categories and create emerging themes. Twenty-one preliminary categories were identified for Level 1 Evaluation: Perception, which were later combined to create the following themes: 1) Learning design support, 2) Ability to learn and apply, 3) Time intensive planning, 4) Plan for time needed, and 5) Approach with open mind. The same process of analysis was conducted for Level 2 Evaluation: Learning, which revealed 18 categories, which were later refined into the following three themes: 1) Learning design/online best practices and principles, 2) Course design framework, and 3) Use of technology to develop/deliver content. Data for Level 3 Evaluation: Learning Transfer was also analyzed using the same constant comparative approach but was even further delineated by Baldwin and Ford’s (1988) training inputs to understand if trainee characteristics, training design, and work environment factors had an impact on learning transfer. Thirty-four preliminary categories emerged, which were later combined to create ten overarching
themes within the training inputs including: Training characteristics: 1) Course enhancements, 2) Student demand, and 3) COVID-19; Training design: 1) Collaborative brainstorming, 2) Course planning documents, and 3) DYOC and; Work environment: 1) Apply design framework, 2) Utilize technology to enhance student experience, 3) Barriers to application, and 4) Promoters of application.

The qualitative analysis findings were triangulated by using multiple collection methods and sources of data. In addition, a peer reviewer was utilized to confirm the accuracy of the analysis in order to strengthen the findings and address any gaps related to using only one method of collection (Merriam, 2016). Data analyses revealed that 1) faculty participants had positive perceptions of the DLC program and highly valued the collaborative learning design support, 2) faculty participants learned new learning design and online best practices and principles while participating in the DLC program, and 3) faculty participants were able to transfer their learning to other courses they were teaching, regardless of modality, by applying the course design framework utilized within the DLC program. The following section discusses each of the study’s findings and connects them with previous research and the two models that guided this study.

Discussion

RQ1: How do faculty participants perceive the DLC Program?

Data was collected from the OE Questionnaire, the DLC Participant Questionnaire, and semi-structured interviews. Survey findings were consistent with previous studies in that participants had positive perceptions of the program and valued the collaborative learning design support (Buckenmeyer et al., 2013). Qualitative analysis revealed the following five themes: 1)
Learning design support, 2) Ability to learn and apply, 3) Time intensive planning, 4) Plan for time needed, and 5) Approach with open mind. These themes are consistent with previous research on collaborative course design models.

Fourteen out of 15 participants mentioned “Learning design support” when describing the most valuable part of the DLC program. This theme, which also included collaboration on learning materials and course design expertise, was clearly evident in previous research. Faculty strongly prefer working one-on-one with learning design experts and agree that they helped them in areas where they lacked expertise (Jaschik & Lederman, 2018; Grover et al., 2016; Lackey, 2011). The emphasis on collaboration, which will be discussed throughout this section, was also evident in the existing research. In fact, several course design models described in Chapter 2 also emphasized the importance of collaboration and attributed this characteristic to their programs’ success (Buckenmeyer et al., 2013; Chao et al., 2010; Xu & Morris, 2007).

The second theme, “Ability to learn and apply”, was also identified in Buckenmeyer et al.’s (2013) study, which explored the impact of a collaborative course design program on faculty beliefs and teaching practices. The research showed that faculty changed their beliefs and learned new skills and methods that could be applied to their teaching practices (Buckenmeyer et al., 2013). Although transfer is further discussed later in this chapter, this finding aligns with the current study and demonstrates that learning transfer is possible within the context of collaborative course design. Not only did the current study reveal a similar finding regarding learning transfer, it also showed that faculty valued this aspect of the program.

Perception themes three and four were both related to the time needed to develop high-quality online courses. Time was one of the major limitations identified in the literature, especially in relation to collaborative models of course design (Chao et al., 2010; McCurry &
Mullinix, 2017; Stevens, 2013). In fact, Chao et al. (2010) argued that new online courses, as opposed to existing courses needing minor revisions, need even more time when working in a collaborative model. The participants in that study also acknowledged the increased workload when working collaboratively, which was a similar finding to the current study as several participants mentioned, “Time intensive planning”. Although several studies referenced time as a potential challenge when working in a collaborative model, participants still agreed that the end result would have been impeded had any of the collaborative roles been absent (Chao et al., 2010; Xu & Morris, 2007).

The fifth theme, “Approach with open mind” was found in four out of seven interview responses and included embracing collaboration and being open-minded. Richardson et al.’s (2018) study, which examined successful collaborative relationships between faculty and learning designers, revealed that being “open-minded and flexible” was one of the key strategies that led to success. Participants in that study had similar views to the current study and recognized that a lack of openness to the ideas presented could be a major hindrance to both collaboration and completion of the course. In fact, one participant in Richardson et al.’s (2018) study said, “My advice would be to get rid of the pre-perceptions about what is possible. Because there are so many new possibilities” (p. 867). Outlaw and Rice (2016) identified similar perspectives of faculty who partnered with learning design experts. Participants in that study agreed that it was essential to work with a learning designer and stressed the importance of approaching the relationship with a positive and collaborative attitude (Outlaw & Rice, 2016).
RQ2: What do faculty participants learn as a result of the DLC program?

Data were collected from the design activity assessments and semi-structured interviews and the following three themes were identified: 1) Learning design/online best practices and principles, 2) Course design framework, and 3) Use of technology to develop/deliver content.

Fourteen out of 15 faculty participants mentioned “Learning design/online best practices and principles” when describing what they learned as a result of participating in the DLC program. This finding was also evident in the Buckenmeyer et al. (2013) study, which found that faculty participants perceived their success based on three major program characteristics, one of which focused on principles of learning design. Some of the same learning design practices were identified in the current study including the ability to develop learning objectives and aligning objectives with learning activities and assessments. Although the current study took a deeper dive into these practices to better understand how faculty applied them to other courses, the findings regarding participant learning were closely related.

The second theme, “Course design framework” was found in six out of seven participant responses. This theme, which included systematic framework, course mapping, design planning, and design structure/organization, revealed that participants learned these specific course design strategies while participating in the DLC program. Although most participants mentioned the course map when describing their learning in this area, others referenced course design best practices such as having a clear and consistent organizational structure. Therefore, instructional alignment, course mapping, and organizational course design strategies formed the basis of what participants considered to be the “course design framework”. Similar findings were identified in the Buckenmeyer et al. (2013) study, where faculty reported that they learned instructional design principles such as developing learning objectives and aligning objectives with learning
activities and assessments. Although instructional alignment was identified as a learning gain in the current study and the existing literature, course mapping was not specifically mentioned as a strategy used in other course design models.

In this study, the course map, which was a major deliverable scaffolded throughout the program, can simply be described as a concept map. Concept maps refer to a knowledge representation that depicts individual concepts with linking words that connect and indicate the relationship between them (Novak & Cañas, 2008). Although a variety of concept mapping techniques exist and have been widely used for curriculum development, they have proved particularly helpful in the context of online course design and collaborative working methods (Sherborne, 2008). Sherborne (2008) argues that a concept map can help reduce the ambiguity in a collaborative group through the power of shared visualization. Concept maps can provide key features of a plan and their connections in order to provide reference points for group discussion (Sherborne, 2008). Since collaboration is arguably the most critical component of the DLC program, it is not surprising that this technique has proved effective. Although curriculum mapping is usually associated with academic programs, course mapping focuses on the design of a specific course and depicts how student learning outcomes are connected to course activities, assessments, and instructional materials. Beckham et al. (2017) also discussed the use of course maps in online course design and even argued that sharing these tools with students can prove beneficial for showing the connections and boosting engagement.

The third learning theme, “Use of technology to develop/deliver content” was found in seven participant responses. This theme includes tools and technology and the impact of technology on pedagogy. A similar finding was found in the 2018 “Inside Higher Ed Survey of Faculty Attitudes on Technology,” where 75% of faculty agreed or strongly agreed that learning
designers helped them to understand the available educational technologies and integrate them into their courses. Although the finding from this study is reflective of the existing literature, it is somewhat dependent on the course design strategies and technologies that were implemented within each of the courses. For example, the faculty participants who took more of an active role in the development of their instructional materials indicated that they learned more about technology and best practices as opposed to the participants who had their learning designers create the majority of their learning materials for them.

**RQ3: How do faculty participants transfer their learning to other teaching contexts?**

The following learning transfer themes emerged and were presented according to the trainee characteristics input: 1) Course enhancements, 2) Student demand, and 3) COVID-19.

The first and second themes identified in trainee characteristics, “Course enhancements” and “Student demand”, respectively, were also addressed in the existing literature. Hunt et al. (2014) found that faculty who have experience teaching online, which includes the majority of participants in the current study, were motivated to teach in that modality by being able to meet student needs. In the current study, all identified categories within “Course enhancements” and “Student demand” were closely related to student needs including the need to update existing courses, increasing the quality of the course, increasing enrollment, and using the course as a prerequisite.

The third theme found in trainee characteristics was “COVID-19”. Although this finding is specific to the research setting in which this study occurred, there is some early evidence that the rapid shift to emergency remote teaching has not only shown that online learning can be
sustained but that there could be even more opportunities for digital and hybrid learning in the future (Adedoyin & Soykan, 2020; Pokhrel & Chhetri, 2021).

It can be concluded that trainee characteristics seemed to have less of an impact on participants’ learning transfer. Because the participants in this study were generally motivated to enhance their online courses and meet the needs of their students, their characteristics seemed to have more indirect effects on their transfer as compared to the training design and work environment inputs.

The next set of transfer themes that emerged were analyzed in relation to the training design input, which seemed to play a much larger role in participants’ learning transfer: 1) Collaborative brainstorming, 2) Course planning documents, and 3) DYOC.

The first theme in training design, “Collaborative brainstorming” was identified in six faculty responses. Buckenmeyer et al. (2013) found similar results in their evaluation of the DEMP course development program discussed in Chapter 2. Their study, which evaluated an online course development program that paired course developers with faculty mentors, attributed much of its success its collaborative atmosphere. In fact, this unique program used peer-to-peer mentoring and a four-stage design model to ensure a focus on learning design practices and quality standards. Like the current study, the Buckenmeyer et al. (2013) study examined specific program characteristics (including collaboration) and determined that the participants’ perceptions of the collaboration significantly predicted their views of the program overall. The more participants felt that the program was collaborative, the more likely they felt that the program was effective. Furthermore, like the current study, the findings from the Buckenmeyer et al. (2013) study not only indicated that participants developed high-quality
online courses, but that they changed their beliefs and learned new skills and methods that could be applied to their teaching practices (Buckenmeyer et al., 2013; Hixon et al., 2015).

“Course planning documents” was found in five responses and included categories such as the course map, tracking and communication, and the quality rubric. Although these resources were specifically designed to support the DLC program, similar findings were present in other studies. Xu and Morris (2007) briefly mentioned the role of instructional resources such as maps and websites as aids for making curricular decisions. Chao et al. (2010) found that the use of quality standards was valued by faculty when working collaboratively with learning designers to design and develop online courses. Although course mapping was not identified as a main component in other collaborative models of course design, there is a great deal of evidence that supports course mapping as an effective strategy for curriculum development (Beckham et al., 2017; Martin, 2011).

The third and final theme within the input of training design, “DYOC”, was discussed by all interview participants. Although the majority of faculty did not fully take advantage of this just-in-time resource while participating in the program, online resources in general were valued by faculty in other professional development models. In fact, Grover et al. (2016) found that the most strongly preferred learning format for faculty professional development, next to one-on-one meetings with learning design experts, was online resources and support websites. Interestingly enough, faculty participants also preferred informal interactions with colleagues (Grover et al., 2016), which was another component of DYOC. Although this finding does not reflect the current study, it is hypothesized that COVID-19 played a role. Because DYOC is a newer component of the DLC program and was implemented during the COVID-19 pandemic, further research is needed to better understand its impact on learning transfer.
In order to understand the overall impact of the DLC program, it is critical to understand the factors that directly impacted learning transfer. In this study, the design of the program seemed to have the most influence on participant learning transfer, which is congruent with Buckenmeyer et al.’s (2013) study. The analysis revealed that the collaborative nature of the DLC program and the focus on course mapping directly impacted the extent to which participants were able to benefit from the program and make changes and improvements to other courses they were teaching.

The final set of transfer themes emerged and were presented according to the work environment input: 1) Apply design framework, 2) Utilize technology to enhance student experience, 3) Barriers to application, and 4) Promoters of application.

The first theme, “Apply design framework” was also found in participant learning, which is consistent with Baldwin and Ford’s (1988) transfer process model, which states that in order for learning to transfer, training material must first be learned and retained. Therefore, it makes sense that this theme was reflected in both learning and transfer. Within the context of transfer, participants described how they applied the design framework to other courses they were teaching. A similar finding was evident in the Buckenmeyer et al. (2013) study indicating that faculty were able to apply the skills and knowledge acquired from the DEMP program to other courses they were teaching. Although these findings were similar, this study examined transfer from a qualitative lens and discovered how participants were able to transfer their learning.

The second theme, “Utilize technology to enhance student experience” was also reflected in the 2018 “Inside Higher Ed Survey of Faculty Attitudes on Technology,” where 65% of faculty agreed or strongly agreed that learning designers shared tips and effective practices to foster student engagement in their courses (Jaschik & Lederman, 2018). A congruent finding
was also identified in Scoppio and Luyt’s (2017) study, which examined the skill gaps between faculty and learning designers. In that study, the researcher’s argued that the gap in technical skills was perhaps one of the biggest challenges in online course design. Because learning designers are more likely to have used a wider range of technological tools, they are more equipped to target specific areas in the course that need technological attention (Rubley, 2016; Scoppio & Luyt, 2017).

The third and fourth themes found within work environment were related to the participants’ application of learning. The third theme, “Barriers to application” included institutional issues such as working within the context of a research university and negative perceptions of online learning. Both of these challenges were clearly identified in the literature. As described in Chapter 2, faculty still remain skeptical about online learning and the ability to achieve learning outcomes in the digital environment (Allen et al., 2016; Jaschik & Lederman, 2018; Mansbach & Austin, 2018). However, instructors with online experience are more likely to agree that online courses are equivalent to in-person courses (Jaschik & Lederman, 2018). Therefore, it should come as no surprise that the participants in this study will have to combat those negative perceptions, especially from those who do not have online experience. Although the issue of working within a research university is specific to the context of this study, similar barriers were reported in the existing literature including the lack of incentives for online teaching and the lack of rewards for contributions made to digital pedagogy, especially in relation to tenure and promotion decisions (Jaschik & Lederman, 2018).

The fourth theme, “Promoters of application” included supportive departments, having more time to dedicate to teaching, and the ability to reflect upon teaching practices. Jaschik and Lederman (2018) reported a similar finding in their survey of faculty attitudes on technology. In
fact, nearly three-quarters of the faculty members who taught online reported that the experience taught them skills that have improved their teaching, both online and in the classroom (Jaschik & Lederman, 2018). Faculty also indicated that they now think more critically about how to engage students with content, make better use of multimedia content, and are more likely to experiment to improve the learning experience (Jaschik & Lederman, 2018). These findings were also consistent with the Buckenmeyer et al. (2013) study, which indicated that faculty changed their pedagogical beliefs and teaching practices after participating in the DEMP course development program.

Similar to the trainee characteristics input, work environment seemed to play a less significant role in participants’ learning transfer. Although there were mixed findings in terms of departments, participants indicated that institutional issues and pressures related to conducting research were common barriers to their transfer. Although these are difficult challenges to overcome, participants also described several promoters of their transfer including the reflection of their own teaching practices and the application of new methods, strategies, and even philosophies in their approach.

**Researcher’s Perspective**

In addition to acknowledging my position and role in this study, as described in Chapter 3, it is also important to describe a few key experiences that I found particularly valuable while conducting the study. First, I was surprised to learn that some participants felt that the program helped them to reflect upon their own teaching practices. Although I received anecdotal feedback prior to conducting the study, the notion that the program could facilitate reflection was a new discovery. Participants, especially those who had previous experience in the program,
described how it enabled them to think about their curricular materials in new ways that ultimately made their teaching more effective. In fact, several participants explained how the process of online course development not only allowed them to reflect upon their existing teaching practices but also enabled them to explore new approaches that they had not previously considered. Several participants described the practices they planned to include such as responding in more detail to their online students, considering the accessibility of their instructional materials, leveraging technology in new ways to promote engagement, providing more interactive and digestible lecture materials, and ensuring the alignment between their learning activities and assessments to enable their students to achieve the learning outcomes.

Similarly, it was also surprising to learn that faculty described several online facilitation strategies within the context of their learning. Although the majority of the learning themes were in fact related to course design, there were several that touched upon facilitation including opportunities for practice and feedback, strategies for engagement, and use of technology to deliver content. This finding was particularly insightful and showed that transfer not only occurs in relation to online course design but can also bleed into pedagogy.

Finally, the third experience that stood out from my own perspective was the feedback collected on DYOC. Although participants did not fully utilize this resource to its fullest extent, the data showed that the resources were helpful, when utilized, and that faculty had invaluable feedback based on their experience. For example, two participants described that because they had already participated in the program that the information was not as relevant to them. Other participants suggested ideas for future iterations including the use of faculty champions to promote dialogue about effective online course design, additional resources to clarify development team members and roles, and clearer expectations on how and when to use the
course. All of these suggestions provide tangible ideas for future improvements and will help to ensure that this resource remains a valued part of the DLC program.

**Study Limitations**

Because a case study focuses on a single entity, the researcher needs to be aware of the issue of generalizability. However, as Stake (2005) points out, there is much to learn from narrative description. Case studies can portray rich and vivid accounts that can become models or prototypes for similar situations. This transferability allows the reader to apply this knowledge to his or her own context (Stake, 2005). Although generalizability is a concern with case study research, Yin (2018) argues that case studies are generalizable to theoretical propositions instead of populations. In other words, the goal of a case study is to expand upon theories, or make analytical generalizations as opposed to statistical generalizations (Yin, 2018).

Reliability can be another limitation with case study research; however, there are tangible steps that a researcher can take to increase reliability such as describing the participant selecting process, describing the characteristics of the research setting, defining the study’s concepts, constructs, and units of analysis, and describing the overall data collection strategy (Gagnon, 2010). Another area of concern regarding reliability is researcher bias. Because the researcher was the primary instrument for data collection, it is particularly important to address this issue. Researchers will undoubtedly have beliefs and experiences related to the topic being investigated. Therefore, they must define their position and describe to what extent they are part of the phenomenon they are studying (Gagnon, 2010). Although it might not be evident to the researcher that the analysis could somehow be influenced by their background, they must clarify
their role early on so readers are aware of the standpoint from which they are reporting (Gagnon, 2010). This perspective was presented in Chapter 3.

Conclusions

Three essential discoveries were revealed in this explanatory single-case study. First, faculty participants had overwhelmingly positive perceptions of the DLC program and highly valued the collaborative learning design support. This conclusion was drawn from the analysis of the responses from the Online Experience Questionnaire, the DLC Participant Questionnaire, and the semi-structured interviews conducted with seven faculty participants. Twenty-one preliminary categories were combined into five main themes, which confirmed what participants liked most about the program, least about the program, and the advice they would offer new faculty developers: 1) Learning design support, 2) Ability to learn and apply, 3) Time intensive planning, 4) Plan for more time needed, and 5) Approach with open mind.

Second, participants learned new learning design and online best practices and principles while participating in the DLC program. This conclusion was made by analyzing the responses from the design activity assessments, the DLC Participant Questionnaire, and the semi-structured interviews. Eighteen categories were identified in participant learning, which were later combined into three overarching themes: 1) Learning design/online best practices and principles, 2) Course design framework, and 3) Use of technology to develop/deliver content.

Finally, the third discovery revealed that faculty were able to transfer their learning to other courses they were teaching, regardless of modality, by applying the course design framework utilized within the DLC program. This conclusion was drawn by analyzing the responses from the DLC Participant Questionnaire and the semi-structured interviews. Thirty-
four preliminary categories emerged, which were later analyzed in relation to Baldwin and Ford’s (1988) training inputs to understand their impact on participants’ learning transfer.

**Trainee characteristics**: 1) Course enhancements, 2) Student demand, and 3) COVID-19.

**Training design**: 1) Collaborative brainstorming, 2) Course planning documents, and 3) DYOC.

**Work environment**: 1) Apply design framework, 2) Utilize technology to enhance student experience, 3) Barriers to application, and 4) Promoters of application.

Of the three training inputs from Baldwin and Ford’s (1988) transfer process model, training design seemed to play the most significant role and had the most direct impact on participant learning transfer. This finding was congruent with Buckenmeyer et al.’s (2013) study, which also concluded that the design of the program is more important than the characteristics of the faculty who participate.

**Practical Implications and Recommendations**

This explanatory single-case study highlighted the skills and knowledge that can be obtained and applied to other courses through a collaborative online course development program. Although there is an existing gap within this area of inquiry, the findings from this study provide important practical implications for learning design staff, higher education leadership, and faculty seeking practical solutions to online course development. These implications can add to the existing literature pertaining to online course development and specific models of collaborative course design.

Buckenmeyer et al. (2013) also examined learning transfer within a collaborative course development program. Aluko and Shonubi (2014) fused Baldwin and Ford’s (1988) transfer process model with the second level of Kirkpatrick’s training evaluation model to understand the
role of workplace factors in transfer and the extent to which the combined model helped to emphasize those factors. Other researchers have utilized both of these models, in countless contexts, to evaluate programs and understand the impacts of specific factors on transfer.

This study has extended the limited research on learning transfer within a collaborative course design model. It can be used by leaders in higher education to determine specific models of faculty development. Faculty, who are continually being asked to teach in varying modalities, can be made aware of the benefits of collaborative course design and the broader impacts not only to their online courses but to their teaching practices in general. The development of student-centered online courses, through collaborative and purposeful models of design, can be created and experienced by students who continue to demand more flexible, personalized, and digitally-enhanced environments. Learning design staff, who continue to demonstrate their value and expertise in higher education, can realize their impact not only on student-centered learning experiences but on faculty teaching practices and beliefs. Specific recommendations for each of these stakeholders are detailed below:

**Recommendations for Leaders in Higher Education**

Recognize institutional challenges that prevent faculty from being innovative in their teaching. As demonstrated in this study, faculty continue to face institutional issues that often compete with teaching. Although siloed teaching and being trained in the lecture format are difficult issues to overcome and extend beyond the scope of this study, higher education leadership can recognize and acknowledge these challenges and provide opportunities that empower faculty to focus on innovative teaching practices.
Provide appropriate incentives and opportunities for online course development, online teaching, and contributions made to digital pedagogy. As this study has demonstrated some of the far-reaching benefits of collaborative course development, higher education leaders need to recognize the time commitment and effort in developing high-quality online courses. In addition, they should provide appropriate incentives and/or opportunities for faculty to embrace these digital contributions, which directly align with the expectations of today’s modern learners.

Recognize that collaborative course design provides a practical mechanism for learning and transferring new knowledge, strategies, and approaches to faculty teaching practices. Existing research, in addition to the data collected in this study, supports the notion that collaborative course design provides a practical mechanism for learning and applying new teaching strategies. As this is the case, higher education leaders should further promote this type of professional development and recognize the value and benefits of these types of programs.

**Recommendations for Faculty**

Embrace the spirit of collaborative design. Collaborative working models are often a shift for higher education faculty who tend to assimilate to the online environment with strategies more suited to traditional learning. Because collaboration has proved to be one of the most influential factors on participant learning transfer, faculty need to be willing to embrace the collaborative aspects of these programs and recognize the value of their learning design partners.

Plan for the time needed to develop a high-quality online course. Although time is an ongoing challenge when working in a collaborative design model, the benefits of this approach far outweigh the limitations. Faculty should plan accordingly for the time needed and know that the investment will provide benefits that far exceed the development of a single online course.
Plan for the time needed to address potential technology learning curves. Similarly, faculty should also plan for the time needed to address any potential technology-related learning curves. Although these needs will vary per instructor and course, knowing this ahead of time will allow faculty to plan accordingly and recognize that this is part of the program and their own professional development.

Recognize that collaborative course design provides a practical mechanism for learning and transferring new knowledge, strategies, and approaches to your teaching practices. As this study has demonstrated, collaborative course design can provide a practical mechanism for learning and applying new teaching approaches. Therefore, this discovery can be shared with new faculty course developers to ensure they recognize the value of this support and know that their efforts will extend beyond the development of an online course.

**Recommendations for Learning Design Staff**

Do not underestimate the value of collaborative learning design support. Although most learning design experts seem to recognize the value of this support, these findings are particularly important to acknowledge and discuss through everyday practices, especially when working with challenging partners or stakeholders who are unaware of the potential benefits.

Recognize the expertise of all members of the course development team. Although learning design experts bring much-needed value and expertise to the course development partnership, it is critical to understand that all roles make significant contributions and are needed to create the most impactful learning experiences for students.

The design of collaborative development programs has the most far-reaching impact on faculty learning transfer. Because the design of these collaborative models has such a large
impact on learning transfer, it needs to be examined and evaluated regularly to ensure it remains relevant, flexible, and effective. Online learning is a continually evolving field and collaborative design models should continue to evolve with it as new technologies, research, course design strategies, and online pedagogies are discovered.

**Recommendations for Future Research**

The findings from this study contribute and extend the limited research on the evaluation of collaborative course design models. Although the conclusions are specific to the fifteen faculty participants in the Digital Learning Collaborative program, there is much to learn from the narrative descriptions and rich accounts they provided. This qualitative data can support the reasoning behind offering these programs and demonstrate the value that far exceeds course development. Although the findings confirmed the anecdotal evidence collected and the existing literature on collaborative course design, they also highlight additional areas of interest that are in need of further research.

Perhaps the most logical extension of this study would be to evaluate a collaborative course design model using all four levels of Kirkpatrick’s training evaluation model. A more longitudinal study could reveal how faculty continue to use or maintain the knowledge and strategies obtained while participating in the program.

Because the majority of participants in the current study had previous online teaching experience, it would be interesting to evaluate the program with participants who were new to the online environment altogether. Furthermore, because the trainee characteristics input from Baldwin and Ford’s transfer process model seemed to play less of a role in learning transfer, it
would be intriguing to see if this would be more of a factor with participants who had varying characteristics and motivations for online course development.

Further research could also examine the use of DYOC, or other just-in-time online resources, in a non-COVID-19 environment. Because the majority of participants in this study did not fully participate in this resource and attributed it to the ongoing pandemic, it would be interesting to determine if that was in fact the primary cause.

Finally, the current study demonstrated the effective strategy of course mapping in relation to online course design. Because this was not an area commonly discussed in other collaborative models of course design and seemed to facilitate transfer of the course design framework, it would be an interesting area to further investigate and explore.

Closing

This qualitative research study has evaluated a successful and collaborative online course development program. Each of the participants have provided valuable insight on their perceptions, learning, and transfer to other teaching contexts. Their willingness to participate and openness in sharing helped to illuminate the numerous factors that impacted their learning and transfer. It is hoped that the stakeholders involved in the design, development, and facilitation of these effective programs will be able to utilize this research to inform their models and recognize the far-reaching impacts that extend beyond the program.
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APPENDIX A:

COURSE INTAKE FORM

Email address
Full name
Role/Position
Associate Dean
Online Coordinator
Faculty
Dean
Other

Course Information
College
Arts
Arts & Sciences
Behavioral and Community Sciences
Business
Education
Engineering
Global Sustainability
Honors College
Marine Science
Other

Department
Course Prefix and Number
(e.g. OCE 2001)

Course Title
(e.g. Intro to Oceanography)

Development Semester
(options depend on date)

Launch Semester
(options depend on date)

Duration of Course
16 weeks
12 weeks
10 weeks
8 weeks
6 weeks
3 weeks (Maymester/Winter Session)

Is this course?
New
Existing online
Existing Face-to-face

Additional comments

**Course Developer**

Faculty/Course Developer Name

Email
Telephone
Department Chair
Are you the course developer?
Yes
No

Will you teach this course?
Yes
No

Who will teach this course?

**Course Details**

Have you taught this course online previously?
Yes
No

Have you taught this course face-to-face previously?
Yes
No

If the course has been previously taught in your department, what delivery mode was used?
Face-to-face
Hybrid or blended
Online

Do you or your program have an existing syllabus that will be utilized for this course?
Yes
No
List the current textbook or other materials for this course
List any ideas related to the course design, based on its current delivery
Special requirements or area(s) of concern
Additional comment(s)

**Additional Support**
Will anyone be assisting you with the course development?
(e.g. Co-developer, Graduate Assistant, etc.)
Yes
No

**Support Contacts**
Name
Role
Email
Name(s) of additional support
Additional comment(s)

**Historic Enrollment**
Project number for online enrollment
Enrollment cap
Current number of sections offered
(online or face-to-face)

**Priority Areas**
Please indicate which of these priority areas apply to this course and provide explanation (check all that apply).
Meets general education requirements
Meet exit requirements
Full-degree program
High enrollment course
Generates new SCH
Update existing course
State mandate

Describe how this course currently fits into your program(s) requirements.
What’s the rationale for developing this course for online delivery?
Additional comments
APPENDIX B:

ONLINE EXPERIENCE QUESTIONNAIRE

Thank you for taking the time to complete this questionnaire. The purpose of this questionnaire is to collect information about your experience with online learning, online course development, and comfort level using educational technologies. The information collected will be used for quality enhancement purposes and will allow your course development team to best support you throughout the DLC program.

1. Full Name
2. College
3. Course prefix and number for the course you will be developing/refreshing (e.g. IDS 6235)
4. Course title

Online Teaching & Development Experience

5. How many years have you been teaching in higher education?
   a. Less than 1 year
   b. 1-5 years
   c. 5-10 years
   d. 10-15 years
   e. More than 15 years

6. How many years have you been teaching at USF
   a. Less than 1 year
   b. 1-5 years
   c. 5-10 years
   d. 10-15 years
   e. More than 15 years

7. Have you ever taught an online course?
   a. Yes
   b. No

7a. How long have you been teaching online courses?
   a. Less than 1 year
   b. 1-5 years
   c. 5-10 years
d. 10-15 years

7b. Were you involved in designing the online course(s) you taught?
   a. Yes
   b. No

7c. Are you a certified USF online instructor?
   a. Yes
   b. No

7c1. Which certification did you complete?
   a. Online Instructor Certification (OIC)
   b. Teaching Online 101

8. Have you ever developed an online course?
   a. Yes
   b. No

8a. Have you ever worked with a learning designer to develop an online course?
   a. Yes
   b. No

8b. Have you ever collaborated with a multimedia team to create original content?
   a. Yes
   b. No

9. Have you ever taken an online course as a student?
   a. Yes
   b. No

10. Have you completed any trainings or professional development related to online course development?
    a. Yes
    b. No

10a. Please list any trainings you have participated in.

11. Are you familiar with Quality Matters?
    a. Yes
    b. No

11a. Please list any Quality Matters trainings you have participated in.

**Preferred Teaching Practices**
12. Describe your teaching philosophy.
13. Describe your preferred teaching methods (online or face-to-face).
15. How, if at all, do you expect your instructional approach to change in the online environment?

**Educational Technology Experience**
16. Which of the following states best describes you?
   a. An early adopter of new educational technologies.
   b. Someone who typically adopts new technologies after seeing peers use them effectively.
   c. Someone who is disinclined to use educational technologies.
APPENDIX C:

DLC PARTICIPANT QUESTIONNAIRE

Thank you for taking the time to complete this questionnaire about your experience in the DLC program. Your responses will be kept confidential. Unless otherwise stated, the course being addressed in this questionnaire is the online course you developed while participating in the DLC program.

Demographics
1. Full Name
   (will be used for identification purposes only and will not be used in any reporting)
2. Age
   a. 18-24 years old
   b. 25-34 years old
   c. 35-44 years old
   d. 45-54 years old
   e. Over 55
3. Gender
   a. Male
   b. Female
   c. Non-binary
   d. Prefer not to say
4. Academic discipline:
5. I am currently:
   a. Tenured
   b. Not tenured, but on a tenure track
   c. Not on a tenure track (ongoing appointment)
   d. Not on a tenure track (temporary/fixed-term appointment)

To what extent do you agree or disagree with the following statements about the DLC program?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>The goals of the DLC program were clearly defined.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>7.</td>
<td>The development timeline was clearly articulated.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>8.</td>
<td>The roles of the course development team were clearly articulated.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>
9. The DLC program provided materials, examples, and just-in-time resources (e.g. syllabus template, QM rubric, objectives handout, etc.) that were relevant to me as an online instructor.  

<table>
<thead>
<tr>
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<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
</table>

10. The DLC program provided materials, examples, and just-in-time resources that are relevant to my job.

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<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
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</thead>
</table>

11. I would recommend the DLC program to my colleagues who are thinking about developing an online course.

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<th>SD</th>
<th>D</th>
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<th>A</th>
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12. I would develop another online course through the DLC program.

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</table>

13. I am satisfied with my online course that was developed through the DLC program.

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<th>N</th>
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</table>

14. I am satisfied with the DLC program overall.

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<th>N</th>
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<th>SA</th>
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</table>

To what extent do you agree or disagree with the following statements about collaborating with your learning designer?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

15. My online teaching has improved as a result of participation in the DLC program.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
</table>

16. My face-to-face teaching has improved as a result of participation in the DLC program.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
</table>

17. I have been able to apply the skills and knowledge acquired from the DLC program to my other courses.

<table>
<thead>
<tr>
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<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
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</thead>
</table>

18. I have made changes to my other courses as a result of participating in the DLC program.

<table>
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<tr>
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<th>N</th>
<th>A</th>
<th>SA</th>
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</thead>
</table>
To what extent do you agree or disagree with the following statements about Designing your Online Course (DYOC)?

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<thead>
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<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>The online companion course (DYOC) was organized and easy to use.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>20</td>
<td>The content and resources provided in DYOC were helpful to the design and development of my online course.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>21</td>
<td>I found value in participating in the DL learning community within DYOC.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>22</td>
<td>The DYOC companion course complemented the DLC program overall.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>

To what extent do you agree or disagree with the following statements about training transfer?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>My perceptions of online learning have changed as a result of participating in the DLC program.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>24</td>
<td>I will be able to apply the skills and knowledge acquired from the DLC program to other courses I am teaching.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>

25. Which part of the DLC program did you find the most valuable?

26. What did you learn as a result of the DLC program? If possible, describe any specific skills and/or knowledge acquired.

27. How do you intend to apply the skills and knowledge obtained to other courses you are teaching?

28. Do you have any additional comments, feedback or suggestions for how we can improve the DLC program?
APPENDIX D:

QUESTION GUIDE FOR FACULTY DEVELOPER INTERVIEWS

Trainee characteristics
- What was the main motivation for developing your course online?
- Did any external factors impact the outcome of the DLC program for you?
- Did your participation in the program change your overall perceptions of online learning?

Indicate whether you think online course are generally more effective than, as effective as, or are generally less effective than most in-person courses in the following ways:
  - Ability to deliver the necessary content to meet learning objectives:
  - Ability to answer student questions:
  - Interaction with students during class:
  - Interaction with students outside of class:
  - Grading and communication about grading:
  - Ability to rigorously engage students in course materials:
  - Ability to maintain academic integrity:

- What did you learn as a result of the program? If possible, describe specific skills and/or knowledge you obtained (specific skills, knowledge, strategies, etc.)

Work environment
- Describe the changes, if any, you have made to other courses as a result of this program.
- Could the skills and knowledge you obtained be applied to courses in other modalities? How so?
- Were there any particular promoters of the application of learning to other courses you’re teaching?
- Were there any particular barriers to the application of learning to other courses you’re teaching?
  - Can you discuss any workplace factors that have impacted the application of the skills and knowledge obtained in the program? (e.g. environment, culture, support of supervisors, on the job support, etc.)

Training design
- Do you feel like your course benefited from the collaborative nature of the course development program?
- Which resources were most useful to you in the development of your online course?
- Describe your experience in using the online companion course, DYOC.
Level 1: Perception

- What did you like most about the DLC program?
- What did you like least about the DLC program?
- What advice would you give a colleague who is considering the DLC program?
APPENDIX E:

IRB LETTER OF APPROVAL

UNIVERSITY OF SOUTH FLORIDA

APPROVAL

July 15, 2020

Christie Nicholas
4202 E. Fowler Avenue
Tampa, FL 33618

Dear Mrs. Nicholas:

On 7/14/2020, the IRB reviewed and approved the following protocol:

<table>
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<th>Application Type:</th>
<th>Initial Study</th>
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<tr>
<td>IRB ID:</td>
<td>STUDY001082</td>
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<tr>
<td>Review Type:</td>
<td>Expedited 5 and 7</td>
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<tr>
<td>Title:</td>
<td>Beyond the Program: A Case Study Evaluating the Training Transfer of an Online Course Development Program</td>
</tr>
<tr>
<td>Funding:</td>
<td>None</td>
</tr>
</tbody>
</table>

IND. IIE. or IDE: None

Approved Protocol and Consent(s)/Assent(s):
- HRP-503a Social Behavioral Protocol;
- Consent;

Approved study documents can be found under the 'Documents' tab in the main study workspace. Use the stamped consent found under the 'Last Finalized' column under the 'Documents' tab.

Within 30 days of the anniversary date of study approval, confirm your research is ongoing by clicking Confirm Ongoing Research in BullsIRB, or if your research is complete, submit a study closure request in BullsIRB by clicking Create Modification/CR.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).
Your study qualifies for a waiver of the requirements for the documentation of informed consent for the online survey as outlined in the federal regulations at 45 CFR 46.117(c).

Sincerely,

Various Menzel
IRB Research Compliance Administrator
APPENDIX F:

INFORMED CONSENT FORM

Informed Consent to Participate in Research Involving Minimal Risk
Information to Consider Before Taking Part in this Research Study
Title: Beyond the Program: A Case Study Evaluating the Training Transfer of an Online Course Development Program
Study # 001082

Overview: You are being asked to take part in a research study. The information in this document should help you to decide if you would like to participate. The sections in this Overview provide the basic information about the study. More detailed information is provided in the remainder of the document.

Study Staff: This study is being led by Christie Nicholas who is a doctoral candidate at the University of South Florida (USF). This person is called the Principal Investigator. She is being guided in this research by Dr. Sanghoon Park.

Study Details: This study is being conducted at USF and is supported by the College of Education. The purpose of the study is to evaluate Digital Learning’s online course development program, Digital Learning Collaborative Program (DLC). The research will involve participation and completion of the DLC program, completion of two 20-minute online questionnaires, and for a select few participants, a one-hour virtual interview.

Participants: You are being asked to take part in this study because you are a faculty member developing an online course through the DLC program.

Voluntary Participation: Your participation is voluntary. You do not have to participate and may stop your participation at any time. There will be no penalties or loss of benefits or opportunities if you do not participate or decide to stop once you start. Your decision to participate or not to participate will not affect your job status, employment record, employee evaluations, or advancement opportunities.

Benefits, Compensation, and Risk: The potential benefit of participating in this study is reflecting on the factors that promote your ability to apply what you have learned from the DLC program to other courses you are teaching. There is no cost to participate. You will not be compensated for your participation. This research is considered minimal risk.

Confidentiality: Even if we publish the findings from this study, we will keep your study information private and confidential. Anyone with the authority to look at your records must keep them confidential.
Why are you being asked to take part?
We are asking you to take part in this research study because you will have first-hand experience as a faculty participant developing an online course in the DLC program.

Study Procedures:
As a standard part of the DLC program, you will be asked to complete a 20-minute online questionnaire, which will gauge your experience with online learning, online course development, and educational technologies. This brief survey will help your course development team get an understanding of your course development needs and establish a baseline for your perceptions of online learning. After completing this survey, you will begin the DLC program, working closely with your assigned learning designer and completing brief design activity assessments at the end of each phase of development. As a standard part of the course development process, your completed online course will be reviewed by at least two learning designers using the Quality Matters Higher Ed Rubric.

If you choose to participate in this research study, you will be asked to complete a second 20-minute online questionnaire after the program is complete. This questionnaire will measure your perceptions of the program and your ability to apply the skills and knowledge acquired from the program to other courses you are teaching. Although most of the participants’ participation will conclude at this point, a range of 4-6 participants will be asked to participate in a one-hour virtual interview. The interview will include additional questions about your perceptions of the program, what you’ve learned as a result of the program, and how you’ve potentially applied the skills and knowledge to other courses you’re teaching.

Total Number of Subjects
Approximately 20 faculty participants will take part in this study at USF.

Alternatives / Voluntary Participation / Withdrawal
You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. The decision to participate or not to participate will not affect your job status.

Benefits and Risks
The potential benefits of participating in this research study include reflecting on the factors that promote your ability to apply what you have learned from the program to other courses you are teaching. In addition, faculty participants can benefit by knowing that their contributions and feedback will ultimately impact future faculty cohorts of the DLC program. This research is considered to be minimal risk.

Compensation and Costs
You will receive no payment or other compensation for taking part in this study. It will not cost you anything to take part in the study.
Privacy and Confidentiality
We will do our best to keep your records private and confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Certain people may need to see your study records. These individuals include the Principal Investigator, the advising professor, and USF’s Institutional Review Board (IRB).
If completing an online survey, it is possible, although unlikely, that unauthorized individuals could gain access to your responses. Confidentiality will be maintained to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet. However, your participation in this online survey involves risks similar to a person’s everyday use of the Internet. If you complete and submit an anonymous survey and later request your data be withdrawn, this may or may not be possible as the researcher may be unable to extract anonymous data from the database.

Contact Information
If you have any questions, concerns or complaints about this study, call Christie Nicholas at (954) 655-3701. If you have questions about your rights, complaints, or issues as a person taking part in this study, call the USF IRB at (813) 974-5638 or contact by email at RSCH-IRB@usf.edu.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. You can print a copy of this consent form for your records.

Consent to Take Part in Research
I freely give my consent to take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

_______________________________________________________________
Signature of Person Taking Part in Study

_______________________________________________________________
Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent and Research Authorization
I have carefully explained to the person taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

_______________________________________________________________
Signature of Person Obtaining Informed Consent

Date
APPENDIX G:

PERMISSION TO USE KIRKPATRICK’S TRAINING EVALUATION MODEL IMAGE

Request for permission

KP Permissions <permissions@kirkpatrickpartners.com>
To: Christie Nicholas <cwnicholas@mail.usf.edu>

Thu, Mar 25, 2021 at 4:48 PM

Dear Christie,

Sorry for the delay in response. Thank you for contacting us to request permission to use the Kirkpatrick Model in your academic work. It’s no problem for you to use the table you cited. Technically, if you want to use that exact table, I think you have to contact copyright.com and obtain permission through the publisher.

However, that table is something we use all the time and I have attached an image that you can use and attribute to Kirkpatrick Partners, LLC. Either way is fine with us.

The definitions reflect the newest version of the model. They have evolved slightly over the years; we don’t use the old definitions any longer. You said you weren’t interested in the new world version of the model, but the image you selected reflects the newest definitions, and therefore the new world model.

We are always interested in seeing how people apply the model, so if you can share a copy of your research with us when it is completed, we would love to see it.

Best regards,
Wendy

[Quote text here]

Wendy Kayser Kirkpatrick
President - Kirkpatrick Partners
8 Madison St., Suite C, Newnan, GA 30263
Customer service: (770) 382-5500

Learn how to build business partnership and create program success -
https://www.kirkpatrickpartners.com/Training-Events/Strategic-Evaluation-Planning-Certification

---

Kirkpatrick Model - upside down.jpg

https://mail.google.com/mail/u/0?ik=010282d706&view=pt&search=all&q=permimg-id:permimg-id-1695284414870553126&ui=2&num=50&pli=1
APPENDIX H:
COPYRIGHT CLEARANCE SUMMARY FOR TRANSFER PROCESS MODEL IMAGE

Thank you for your order!

Dear Mrs. Christie Nicholas,

Thank you for placing your order through Copyright Clearance Center’s RightsLink® service.

Order Summary
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Order Date: Mar 13, 2021
Order Number: 5027211280405
Publication: Personnel Psychology
Title: TRANSFER OF TRAINING: A REVIEW AND DIRECTIONS FOR FUTURE RESEARCH
Type of Use: Dissertation/Thesis
Order Total: 0.00 USD

View or print complete details of your order and the publisher’s terms and conditions.

Sincerely,

Copyright Clearance Center

Tel: +1-855-239-3415 / +1-878-646-2777
customeercare@copyright.com
https://myaccount.copyright.com
APPENDIX I:

RIGHTSLINK PRINTABLE LICENSE FOR TRANSFER PROCESS MODEL IMAGE

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<tr>
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<td>J. KEVIN FORD, TIMOTHY T. BALDWIN</td>
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v1.10 Last updated September 2015

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