ECOLOGY OF FAITH AND LEARNING: A CASE STUDY OF THE EXPERIENCE OF

SPIRITUAL FORMATION OF ONLINE UNDERGRADUATE STUDENTS

by

Phillip James Vincent

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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Abstract

The purpose of this collective case study was to describe the spiritual formation practices of online undergraduate students at a Christian college. This study employed a qualitative methodology approach involving 12 online undergraduate students engaged in studies at a Christian college in the United States. The theoretical framework that guided this study was the ecological systems theory and the ecologies of faith model. The central research question was: How do online undergraduate students describe their experiences of spiritual formation while engaged in online studies? The data collection methods consisted of interviews, journal prompts, and document analysis. The data analysis process involved open coding, values coding, thematic synthesis, and categorical aggregation. Research was needed to understand the nature of spiritual formation within the online educational environment and the perceived influence of technology upon the broad ecosystem of undergraduate students. This study highlights some of the theological, technological, and pedagogical intersections of spiritual formation through online learning environments associated with undergraduate Christian education as well as the ecology of faith and learning.

Keywords: spiritual formation, online education, Christian education, undergraduate.

Copyright Page

Dedication

This manuscript is dedicated to my parents who have dedicated their life to teach and model the value of spiritual formation. They have faithfully championed the value of Christian higher education. It is fitting that I dedicate this body of work back to the family who instilled in me everything this research underscores. I love you both dearly.

Acknowledgments

The doctoral process is certainly a journey and would not have been successful without my own ecological system of support. First, I would like to express gratitude to Mrs. Paula Campbell and Dr. Tylitha Whatley for instilling in me a love for the written word and the ministry of teaching. Second, I would like to express full appreciation for my dissertation committee comprised of my chair, Dr. Dina Samora and my methodologist, Dr. Sarah Pannone for their gracious encouragement, patience, and guidance as I have navigated the dissertation journey. Third, I must articulate my profound gratitude for the research sites and participants who shared their experiences and gave voice to this study. Fourth, I would like to thank my staff family and my church family at Mayfield Road Baptist Church for their encouragement in this process; most notably, I must acknowledge my pastor, Dr. Doug McPherson, whose theoretical fingerprints can be seen throughout both this manuscript and my life; Doug is a treasured friend and brother. Fifth, I offer thanksgiving for my extended family – Jason and Shannon Brown, Dusty Dodge, Dr. Whit Goodwin, Bryan Howell, Janie Milam, Weston Rino, and Adele Suddath, who continue to show grace and inspiration to this redhead.

Above all, I echo the words of the apostle Paul, "I do not account my life of any value nor as precious to myself, if only I may finish my course and the ministry that I received from the Lord Jesus, to testify to the gospel of the grace of God" (*English Standard Version Bible*, 2001, Acts 20:24). I pray both my life and this manuscript serve as a faithful testimony of the gospel of God's grace.

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List of Abbreviations

Association for Biblical Higher Education (ABHE)

Association of Christian Schools International (ACSI)

Barna Research Group (BRG)

Christian Higher Education (CHE)

Council for Christian Colleges and Universities (CCCU)

Digital Learning Environment (DLE)

Institutional Review Board (IRB)

Learning Management Software (LMS)

National Center of Education Statistics (NCES)

Southern Association of Colleges and Schools Commission on Colleges (SACSOCS)

CHAPTER ONE: INTRODUCTION

Overview

An icon of instruction throughout higher education, the lectern symbolizes centuries of traditional pedagogical practices such as the lecture and seminar approaches of instruction where dissemination of truth occurs between faculty and students (Karges-Bone, 2014). These established instructional customs developed within European academia and transitioned to institutions of higher education across the United States (Perna & Ruiz, 2016; Smith, 2017). Today, the distribution of truth may be acquired globally simply through the stroke of a keyboard or the touch of one's smartphone (Bernacki et al., 2020; Budhwar, 2017).

The cultural progression of contemporary enlightenment incorporated the technological advances of the modern era and demanded evolving thought related to traditional pedagogical practices within higher education (Graziano & Bryans-Bongey, 2018; Hashim, 2018; Trust, 2018). An emerging modernization within higher education has led to expanding use of digital technologies and online educational mediums which further extend the reach of the contemporary classroom toward a global audience through the world wide web and develop a rich ecosystem for students engaged in higher education (Collins et al., 2021; Daniela et al., 2018). The fall semester of 2018 recorded 6,932,074 students enrolled in any type of distance education undergraduate course and comprised up to 34% of the total undergraduate student population with 17% of students engaged exclusively in distance education. (National Center for Education Statistics, 2018). Additionally, a global health crisis in 2020 led to the largest educational paradigm shift within generations. The impact of the international pandemic garnered an unprecedented shift in forms of instructional delivery and an extraordinary move toward a digital learning environment for students and educators across academia (Valverde-

Berrocoso et al., 2020). Online education, specifically, provides academic programs which are more affordable, accessible, and accommodating to the modern student, including a means to continue education when traditional educational formats are not suitable, such as during a health crisis (Black, et al., 2019; Valverde-Berrocoso et al., 2020).

Contemporary institutions of Christian higher education, in particular, exist at a unique intersection of theology, pedagogy, and technology. Two significant biblical imperatives drive the progression of God's rescue story within the narrative of Scripture and Christian education. First, Jesus declares, "You shall love the Lord your God with all your heart and with all your soul and with all your mind and with all your strength" (*English Standard Version Bible*, 2001, Mark 12:30). This biblical imperative encapsulates the divine mission of Christian higher education institutions to provide educational environments and opportunities which are holistic in nature. Second, Jesus commands, "Go therefore and make disciples of all nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit, teaching them to observe all that I have commanded you" (*English Standard Version Bible*, 2001, Matthew 28:19-20). This biblical command envisions a global mission of Christian education, spiritual formation, and discipleship.

The commands of Scripture delineate Christian education as discipleship (Drovdahl & Keuss, 2020; Pazmino, 2008). Discipleship involves the formation of Christians into faithful followers of Jesus Christ. Discipleship, as a means of spiritual formation, serves to equip Christians for the highest order citizenship both on earth and in heaven, namely to equip them to serve the kingdom of God (Cox & Peck, 2018). By championing a holistic love of God, self, and others, Christian colleges best prepare students for life in God's kingdom. Forrest and Lamport (2013) contend, "Christian education is more than just content; it is spiritual formation" (p. 112).

The biblically-mandated, theologically-driven mission of Christian institutions of higher education does not diminish due to the presence of educational technologies or online learning environments (Lowe & Lowe, 2018). Understanding learning through a theoretical framework of an ecosystem, the current research explores how spiritual formation is demonstrated within online undergraduate programs offered by a Christian college in the United States. Within this chapter, the particular background, problem and purpose statements, significance, and key definitions which form the current study will be addressed.

Background

The context of this present study included a broad historical, social, and theoretical background. The innovations which have characterized higher education since its inception have thrust Christian higher education, in particular, into a unique intersection of theology, pedagogy, and technology (Roberts, 2019). The continued innovative practices of modern Christian colleges, such as online undergraduate education, emphasize the sustainability and credibility of Christian institutions to be *salt* and *light* in the evolving digital age (Cassell & Merkel, 2018). Through holistic discipleship as well as rigorous and relevant academic experiences for all students, Christian colleges are able to balance both historical and theological convictions with continuing invocations.

Historical Context

Innovation has remained a central element within the historical landscape of higher education (Cai et al.,2020). Shugart (2013) argued, "To ignore the influence of history on [modern colleges and universities] almost guarantees failure in our efforts to change culture and the systems it supports" (p. 9). At the inception of American higher education, most colleges and universities boasted of religious affiliation (Mattingly, 2017). As the population grew and

diversified on both national and international levels, changes to the structure of higher education were required in order to develop consistent and quality academic programs. Further, federal assistance programs, such as the G.I. Bill, granted accessibility and affordability of undergraduate degrees to recipients (Jenner, 2019). As the need for more higher education institutions intensified, some colleges and universities dismissed the traditional faith-based approach to education for a more marketable and reproducible approach to higher academic study (Guilbault, 2018; Shugart, 2013). There were, however, a select group of Christian colleges and universities, including the college within the present study, who remained committed to their biblical and theological convictions, while also seeking to remain relevant and innovative in their approach to higher education (Fogarty et al., 2018).

The emergence of the Internet in 1992 allowed innovation within American higher education to expand yet again (Kentnor, 2015; Palvia et al., 2018). Online education increased accessibility and collaboration while also revolutionizing pedagogic and instructional norms (Palvia et al., 2018). As the number of students engaged in face-to-face undergraduate studies continues to decline, the number of students engaged in online undergraduate studies continues to rise with public and non-profit institutions recording the largest percentage of students taking online undergraduate classes (Seaman et al., 2018). Harasim (2000) remarked, "Online learning is no longer peripheral or supplementary; it has become an integral part of mainstream society" (p. 59). As of October 2020, 59% percent of the global population was active internet users, with mobile internet users accounting for 91% of total internet users (Internet World Stats, 2020). The sustainability and credibility of contemporary Christian colleges lies in the institution's ability to innovatively balance cultural relevancy through online education with the institution's biblical and theological convictions (Parker, 2020).

Social Context

The social context of the present study surrounded the innovation and diversity of the modern era. The innovations of modern higher education provide opportunities for higher education to mirror the diversity among the greater population, especially as it relates to spirituality and personal values (Astrachan et al., 2020). In a 2016 study, one in five undergraduate students viewed themselves as "spiritual but not religious," but among that majority of students who viewed themselves as "religious," more than nine in 10 also saw themselves as "spiritual" (Astin, 2016, p. 21). The distinctions between "spiritual" and "religious" understood by the participants are unclear, but Astin (2016) found "it seems likely that 'religiousness' implies acceptance of a set of beliefs and practices associated with a particular religious denomination or group" (p. 18). This may imply undergraduate students are comfortable with identifying with spiritual practice, but are not comfortable identifying with a specific religious group. Interestingly, however, the four institutions in Astin's sample with over 90 percent of students reporting they are religious are all private, Christian liberal arts colleges, such as the one in the current study (Astin, 2016). An emerging collection of literature supports the significant role spirituality, purpose, and religion play within the formation of undergraduate students (Astin, 2016; Glanzer et al., 2017; Sriram et al., 2018; Vaccaro et al., 2018). This research finding underscores the distinctive nature of Christian higher education and warrants further investigation which is specific to spiritual formation of online undergraduate students at a Christian college.

Spiritual formation, as a cornerstone of Christian higher education, cultivates the image of God within students by helping students internalize and apply faith, transforming both the mind and heart of students through holistic discipleship (English, 2020; Wilkin, 2019). Within a

modern context, the act of Christian education must intersect with the formative nature of modern technology in providing a mooring within the personal ecosystem of the modern online student (Astin, 2016; Lowe & Lowe, 2018). Christian higher education provides a holistic experience in formation through a rich ecosystem of learning and faith development, including online education (Lowe & Lowe, 2018).

Theoretical Context

The historical and social dimensions of Christian higher education underscore the innovative approach to Christian higher education across generations and provide a rich ecosystem for academic learning and personal formation (Collins et al., 2021). Spiritual formation, however, remains a central distinctive to the mission and activity of Christian colleges and universities, even in the evolving progression of student diversity and technological innovation (Astin, 2016; Beech, 2021; Thompson, 2019). Through a holistic approach to spiritual formation and learning, the Christian college positions itself to acknowledge how an individual's holistic experiences and environments encompass a hierarchy of systems which interconnect and engage in reciprocity, even as it relates to spiritual formation. Within a theoretical context, general research has been conducted related to human development and spiritual formation (Fowler, 1991; Goldman, 1968; Steele, 1998), yet a gap in the literature existed related to the interactions between spiritual formation, technology, and Christian education. Fowler (1991), in particular, argued spiritual growth occurred in seven, linear stages of faith development. Other theorists insisted social presence, cognitive presence, and teaching presence are essential elements within the formative community of higher education (Garrison, 2016) and underscored the formative nature of the academic community itself upon the undergraduate student (Rovai, 2002). The present generation of undergraduates, however, draws meaning and identity through

a broad ecosystem of support and personal formation (Drovdahl & Keuss, 2020). The current study will theoretically observe human growth and development in concentric circles rather than in linear array.

Bronfenbrenner's (1992, 1999) ecological systems theory provides a theoretical framework to picture the interconnected nature of the online undergraduate student. The online undergraduate student is comprised of a network of experiences and relationships including: the microsystem of one's faith and relationships with family and peers; the mesosystem of one's extra-curricular group; the exosystem of one's campus culture and online interactions; the macrosystem of American democracy; and the chronosystem of the impact of time across systems (Brofenbrenner, 1999; Woods et al., 2019). Each subsystem provides influence upon the student's personal formation and interplays with other subsystems (Brofenbrenner, 1992, 1999). Further, through Lowe and Lowe's (2018) ecologies of faith model, the microsystem of spiritual formation and discipleship intersects with the various subsystems of an undergraduate's personal and social framework, including spiritual formation through online education.

Problem Statement

The problem is spiritual formation is more challenging in an online learning environment than in a traditional, face-to-face learning environment for undergraduate students due to the requisite skills for distance learning, such as self-regulation, and the autonomous nature of the digital learning environment (Antonelli et al., 2020; Lewis, 2018; Naidoo, 2019).

The goal of Christian higher education includes the formation of students into faithful followers of Jesus Christ, equipped for service in God's kingdom (Cox & Peck, 2018; Drovdahl & Keuss, 2020; Pazmino, 2008). Within face-to-face learning environments, this is accomplished through residential course instruction, faculty and staff interactions, as well as various on campus

programs, such as Chapel and other Student Life departmental programs (Mann, 2020). There

exists, however, a difference in how online undergraduate students are engaged. Within Christian

colleges, such as Grand Canyon University and Liberty University, the requirements for weekly

chapel attendance differ between residential and online students. Further, opportunities to

cultivate community, such as through Student Life programs, small group meetings, or

student/staff mentorships do not exist for online undergraduates in similar ways these

opportunities exist for residential students (Grand Canyon University, 2021; Liberty University,

2021).

　　　　Given the formative nature of technology along with the theologically driven mission of

Christian colleges, further research was needed associated with spiritual formation through

online learning environments. Precedent literature has focused on online graduate students

(Etzell, 2015; Lewis, 2020), or is narrowed in scope to non-liberal arts Christian colleges

(Ledbetter, 2017) or is associated with international students (Lam, 2020). Researchers have

focused on the role, or experience, of the instructor in spiritual formation from a distance

(Gowan & Miner, 2021; Korn, 2020; Lam, 2020; Ledbetter, 2017). Additional researchers have

concentrated on the role of the church in spiritual formation (Dunlow, 2021; Maddix, 2018;

McPherson, 2018; Sironen, 2020). A gap exists within the literature with regard to spiritual

formation through distance learning environments, particularly through the online learning

environment of undergraduate students at a Christian college within the United States.

Purpose Statement

　　　　The purpose of this multiple case study was to describe how online undergraduate

students experience spiritual formation through online learning at a Christian college. For this

study, spiritual formation is defined as man's "continuing response to the reality of God's grace

shaping us into the likeness of Jesus Christ, through the work of the Holy Spirit, in the

community of faith, for the sake of the world" (Greenman & Kalantzis, 2015, p. 24). The theory

guiding this study is Bronfenbrenner's (1992, 1999) ecological systems theory and Lowe and

Lowe's (2018) ecologies of faith model as it explains the intersection of spiritual formation,

higher education, and technology as well as describes the interplay of subsystems within an

individual's personal formation, experiences, and faith development (Lowe & Lowe, 2018). This

theoretical framework will allow the voices and experiences of online undergraduates to be

heard, while providing a framework to highlight the formative nature of Christian online

education, specifically spiritual formation through online learning.

Significance of the Study

The significance of this study was practical, theoretical, and empirical. Given the trajectory

and evolution of technology and educational practice in the present day, as well as the

foundational element of spiritual formation within a Christian college's mission, the perceptions

and experiences of online undergraduate students require further study. Researchers have noted

how spirituality allows for extensive learning gains and greater student satisfaction and serves as

a significant contributor to student success, especially for minority students, such as those

engaged in online studies (Astin, 2016; Goodwin, 2021; Koenig, 2001; Kuh & Gonyea, 2005).

The formative nature of technology has accelerated the expansion of Christian higher

education while also hastening addictive and habitual behaviors among adults (Bayer & LaRose,

2018). The present study will provide a contextual lens to the theoretical framework associated

related to the ecology of faith and learning (Bronfenbrenner, 1992; Lowe & Lowe, 2018).

Through a review of the literature within the present study, the intersection of theology,

pedagogy, and technology will be identified as it relates to spiritual formation through online

undergraduate Christian education. The interconnectedness and reciprocity observed throughout a student's personal ecological framework will be underscored as a means for informing policy and practice as well as propelling the research forward associated with spiritual formation of online students.

The present study served as an evaluative exercise that will help identify key significant practices currently employed by contemporary Christian colleges and articulate students' perceptions associated with those practices. Given the continued reliance upon online education within modern higher education, the present study served as an assessment tool for the credibility and sustainability current practices within online Christian higher education related to spiritual formation.

The theoretical significance of the present study began by filling a gap within precedent literature by describing the concentric, interconnected nature of formative practice within technology, theology, and Christian education through the experiences of this study's participants associated with the phenomenon of spiritual formation through online learning. This study provided a contextual scope of Lowe and Lowe's (2018) ecologies of faith model framed through Brofenbrenner's (1992, 1999) ecological systems theory.

Research Questions

Creswell and Creswell (2018) recommended researchers employ two types of qualitative research questions: a central question, which is the fundamental inquiry a researcher explores within a study, and a variety of sub-questions which further refine the central question. The central research question within this study asked: How do online undergraduate students describe their experiences of spiritual formation while engaged in online studies? (Greenman & Kalantzis, 2015)? This central research question provideed a foundation for the current research project.

The answers to these questions allowed participants' experiences to be shared and for knowledge to be advanced in order to improve practice (Creswell & Poth, 2018).

Three sub-questions within this study helped provide a better understanding of the broad nature of the phenomenon (spiritual formation) through the individual experiences of the participants.

Central Research Question

How do online undergraduate students describe their experiences of spiritual formation while engaged in online studies?

Sub Question One

How do online undergraduate students describe their experience of spiritual formation in an online environment?

This first sub question inquired of the specific spiritual formation practices engaged by the participants and how those practices interconnect with other aspects (subsystems) of his or her life, including relationships, school, media usage, etc. (Lowe & Lowe, 2018; Whitney, 2014).

Sub Question Two

How do online undergraduate students experience encouragement related to their spiritual formation?

The second sub question inquired of how each participant's subsystems (such as the college, family, church, etc.) encourage, or foster, spiritual formation practice within the life of the online student (Brofenbrenner, 1992; Lowe & Lowe, 2018).

Sub Question Three

How do online undergraduate students' experiences of spiritual formation connect to the online educational environment?

Given both positive and negative effects of technology use within undergraduate students, the final sub question inquired of how each participant perceives the influence of the subsystem of digital technology, in particular, upon his or her spiritual formation. (Cyzewski, 2020; Dovich, 2017; Lowe & Lowe, 2018; Smith & McMullen, 2020).

Definitions

The following section provides an overview of concepts and terms pertinent to the present study.

1. *Online education* – A phrase positioned within the broader context of distance learning, online education refers to educational activity where "the instructor and student are separated for the entirety of the course, and the majority of instruction utilizes the Internet" (Etzell, 2015, p. 26).

2. *Spiritual formation* – A phrase which refers to man's "continuing response to the reality of God's grace shaping us into the likeness of Jesus Christ, through the work of the Holy Spirit, in the community of faith, for the sake of the world" (Greenman & Kalantzis, 2015, p. 24).

3. *Christian education* – Smith (2009) found two differentiating factors of Christian education from other forms of education: (1) Christian education has a starting point of objective truth as found in the Person, activity, and word of God and (2) Christian education moves beyond mere content knowledge toward developing a way of life for students.

4. *Christian formation* – This phrase indicates the broader end and aim of Christian education, namely formation of students into the image and likeness of Christ. This

phrase also provides "a more encompassing term to house Christian education and spiritual formation" (Estep & Kim, 2010, p. 247).

5. *Theological anthropology* – A phrase which refers to the holistic understanding of humanity's role within creation. For man to have been made "in the image of God means that man is like God and represents God" (Grudem, 2009, p. 442).

Summary

Key imperatives recorded within the narrative of Scripture are educational in nature (Mark 12:28-34; Matthew 28:19-20) and form the theological and biblical underpinnings of contemporary Christian colleges and universities. The historical, social, and theoretical context of American higher education underscores an educational enterprise characterized by extraordinary innovation (Cai et al.,2020). As the trajectory of technological expectation and evolution continues to revolutionize the pedagogic methods of higher education instruction, the theological and biblical convictions of Christian colleges and universities, in particular, remain. By championing spiritual formation of students in all educational environments, namely a holistic love of God, self, and others, Christian colleges best prepare students for life in God's kingdom, highlighting how the heart cannot love what the mind does not know (Wilkin, 2019). The problem addressed in this study is spiritual formation is more challenging in an online learning environment than in a traditional, face-to-face learning environment for undergraduate students due to the inability to physically connect from a distance (Antonelli et al., 2020; Lewis, 2018; Naidoo, 2019). Understanding the phenomenon of spiritual formation through online learning as an ecological framework (Lowe & Lowe, 2018), this case study described the spiritual formation practices of online undergraduate students at a Christian higher education institution.

CHAPTER TWO: LITERATURE REVIEW

Overview

Contemporary society boasts of an ongoing prevalence of online learning platforms within higher education as well as a cultural evolution and expectation of technology use within both personal and professional spheres (Kellner & Share, 2019; Postman, 2006). Christian institutions of higher education, in particular, find themselves at the unique intersection of theology, pedagogy, and technology (Etzell, 2015). The overall mission of Christian higher education in providing holistic discipleship does not diminish due to a particular course delivery format. As the use of educational technologies and digital learning environments advances, Christian professors and institutions must embrace these innovations with the same creativity, passion, and urgency modeled throughout the metanarrative of Scripture.

This chapter comprises of a review of the theoretical framework for this study associated with the spiritual formation of online undergraduate students as well as the related research. Precedent literature related to theological anthropology, online pedagogy, and Christian education and discipleship will be discussed in the context of spiritual formation. Within this literature review, the areas of research which are incomplete, particularly as these areas overlap, are highlighted as a cause for this study.

Theoretical Framework

The theoretical framework guiding this study comes from two different theories: Bronfenbrenner's (1992, 1999) ecological systems theory associated with the ecology of human development and Lowe and Lowe's (2018) ecologies of faith model. This theoretical framework provides a systematic lens and developmental construct through which to view the perceptions

and practices of online undergraduate students who live and study at the intersection of theology, pedagogy, and digital technology.

Ecological Systems Theory

The concept of an ecology of human development fostered by Bronfenbrenner (1992) articulated contexts of human development in terms of a "hierarchy of systems at four progressively more comprehensive levels" (p. 80). Bronfenbrenner, while influenced by Vygotsky (1978), centers his theory on a holistic view of human development and reflecting on the multiple dimensions associated with human growth and maturity According to Bronfenbrenner (1992), the developed person is comprised of an ecological universe of "nesting structures," namely the microsystem, mesosystem, exosystem, and the macrosystem (p. 3). Bronfenbrenner (1999) ultimately added the chronosystem to his theory to explain environmental and social changes over the course of time.

The five layers of Bronfenbrenner's theory represent the multi-dimensional construct of human development as well as the relationships and interactions which are essential for human growth and formation. The microsystem represents an individual's core environment and most immediate relationships. This includes relationships with family, school, church, and peers. The mesosystem serves as the connecting point of two or more systems. An example within this system involves the relationship between parents and school teachers. The exosystem shapes an individual's larger social system and includes the influence of forces beyond the individual, such as media, politics or social services. The macrosystem outlines an individual's larger cultural context and showcases the individual's shared cultural narrative, heritage, identity, and values (Bronfenbrenner,1992; Cross, 2017). Finally, the chronosystem outlines the environmental changes and socio-historical transitions over time (Bronfenbrenner, 1999). While complex in

nature, Bronfenbrenner pursued an understanding of holistic human development, including an individual's intellectual, social, moral, emotional, psychological, and spiritual dimensions.

While innate patterns of personal development play a role in a person's maturity, Bronfenbrenner (1992) found these patterns do not operate mechanistically, but always in relationship to and in interaction with a variety of social contexts and settings (p. 11). Within Bronfenbrenner's theory, the inner world of an individual's thoughts and feelings as well as an individual's range of material and social resources directly influences the individual's developmental pathway (Houston, 2017). The interaction, interconnectedness, and reciprocity among personal ecological systems, thus, have significant influence upon a person's cognitive and affective development. According to Bronfenbrenner's theory, the reciprocal, social interactions of limitless varieties which take place across the spectrum of an individual's social ecosystems serve as the catalyst for human growth and development and drive an individual's habitus, character, predispositions, and interpretations. Within the present study, Bronfenbrenner's theory provides framework for understanding the dominant cognitive patterns within participants' thoughts and emotional reactions which provide formation to the individual's actions. Specifically, the interplay between the participant and his or her online social context and how this setting shapes formative experience and practice will be observed.

Ecologies of Faith Model

Utilizing Bronfenbrenner's theory, Lowe and Lowe (2018) conceptualized spiritual formation through an ecological framework and argued spiritual formation can occur within Christian higher education, regardless of course delivery format. Through an ecologies of faith model, Lowe and Lowe (2018) observed how "the created order or at human beings (human ecology) from an ecosystems orientation encompasses both the part and the whole. One is not

sacrificed to the other because both are important for a more complete and thorough understanding of reality" (p. 88). Through aspects of interconnectedness and reciprocity, educational environments and spiritual formation practices comprise a hierarchy of systems, including social, church, and familial connections and personal experiences, including online educational environments. By incorporating faith-based and online environments within their model, such environments and social structures become part of an individual's macrosystem as well as the fundamental philosophy through which the individual and their microsystem, mesosystem, and exosystem function together in the wider social, political, and economic environment (chronosystem) over time, as well as in spiritual formation practice (Fearnley, 2020; Lowe & Lowe, 2018). Within the present study, this model provides a structure for understanding the intersection of theology, formation, technology, and higher education and the influence of this intersection upon the mind and spiritual practice of an online undergraduate student.

Christian higher education involves a holistic approach to the cognitive, affective, social and spiritual dimensions of students (Wallace, 2021). In the current digital age, students are turning to technology for cultural discernment and personal identity (Francis & Hoefel, 2018; Kinnaman & Matlock, 2019; Vițelar, 2019). Within online learning, in particular, a holistic approach becomes imperative when addressing the paradox of digital technology (Edara, 2021; Paulus et al., 2019). For this particular study, the ecological systems theory (Bronfenbrenner, 1992) and the ecologies of faith model (Lowe & Lowe, 2018) provide an interpretive lens to examine how formation occurs both through student experiences (e.g., formative practice) and within the environments (e.g., online education) of each student's personal ecological framework and how spiritual formation can occur through distance learning.

Related Literature

Precedent literature related to the spiritual formation within higher education and spiritual formation through distance learning revealed the theological context as well as the challenges to spiritual practice within the modern era, including the unique challenges of forming community through digital technologies (Astin, 2016; Horan, 2017; Lam, 2020; Morrow, 2020). In the synthesis of the literature for this study, the nature of spiritual formation of online undergraduate students is clustered into four distinct areas: the theological context of spiritual formation; spiritual formation and Christian education; spiritual formation and digital technology; and spiritual formation through an ecology of learning. Research indicates the cognitive and affective benefits of spiritual formation practice, regardless of the educational environment (Copan, 2016; Francis et al., 2020; Maddox & Andrews, 2018). This literature review will highlight the nature of spiritual formation of online undergraduate students through the lens of an individual's ecological framework.

The Theological Context of Spiritual Formation

All pedagogy finds root within a view of philosophical anthropology (Howard, 2018; Smith, 2009). One's understanding of the nature of mankind drives both the activity (pedagogy) and mission (formation) of education, regardless of educational medium (traditional or online). One's understanding of human development and spiritual formation are grounded by theological anthropology and the doctrine related to the image of God (Bird, 2013; Estep & Kim, 2010; Francis, 2019). For a human race designed to image its Creator, humanity currently lives in an age where the "selfie" dominates one's pursuit for personal formation and social interaction (Detweiler, 2018). Mankind's personal identity is grounded primarily in God's knowledge of humanity (Roser, 2017). As Peterson (2019) noted, "My identity does not begin when I begin to

understand myself. There is something previous to what I think about myself, and it is what God thinks of me" (p. 39).

Theological anthropology forms the heartbeat within the metanarrative of the story of Scripture (Etzell, 2015; Vorster, 2019). The story of Scripture encapsulates a shared narrative between all students and underscores the eternal plot within humanity (Setran, 2020b). This story serves as a system of formation and intersects with all other systems within the ecological framework of a student's life, experiences, and relationships (Lowe & Lowe, 2018). The metanarrative of Scripture forms a theological context for spiritual formation and speaks to God's design of human beings and the destined spiritual relationship between God and man as well as man's unique relationship with the remainder of God's creation. Roark and Cline (2018) contended, "The story of Scripture is the story of God, the King, and His loving and gracious purposes of saving a people for Himself to delight in His glorious presence forever" (p. 74). The story of modern humanity can only be found and formed through the biblical storyline. Narrative serves as a form of personal identity as well as a cultural currency; it both details and fosters personal formation (Buster, 2018). Christian education, then, as a means of Christian discipleship and formation seeks to help students find themselves in God's rescue story. The story of Scripture and its innate pedagogical examples provide a systematic, theological mooring through which holistic discipleship and spiritual formation can occur, regardless of the medium of education, whether in the traditional format or through online education. This metanarrative can be viewed through four thematic acts: creation, fall, redemption, and restoration.

Act One: Creation

In the creation narrative which opens the story of Scripture, God's unique design for man being crafted into the image of God, *Imago Dei,* underscores man's spiritual relationship with

God and man's role in the stewardship of God's creation. Through creation, the trinitarian community which comprises the character and action of God engages in the act of humanitarian formation. Grudem (2009) maintained, "The fact that man is in the image of God means that man is like God and represents God" (p. 442). Biblical commentators and historical doctrinal understanding of the terms "image" and "likeness" in Genesis 1:26-27 remain mixed (Kilner, 2017; Lustig, 2017). Etzell (2015) argued, "*Image* and *likeness* appear to represent two connected, yet distinct, relationships—mankind's relationship to God, and mankind's relationship to God's creation" (p. 66). Bruno (2015) maintained the image of God includes both the characteristics and the relational tendencies which humans share with God. While modern scholarship remains mixed within this interpretation, agreement exists related to how the image of God defines one's relationship to God as well as one's relationship to God's creation (Douglass, 2020). The doctrine of theological anthropology, as expressed in the image of God, underscores the uniqueness of humanity among all of God's creation and the element of relationship to God and others (Etzell, 2015; Johnson, 2020). The creation narrative highlights God's unique design of man for relationship with God and for relationship with the remainder of God's creation. The image of God within man comprises a holistic view of man, underscoring the modern educator's need to recognize the dignity and relationship inherent within humanity.

Act Two: Fall

Genesis 3 records man's willful disobedience and blatant distrust of God's authority. Man decided to serve as his own authority by disobeying the commands of the Creator. Through this conscious act of idolatry, man "de-godded God" (Carson, 2010, p. 33). The Fall distorted man's spirituality and humanity's relationship with God became characterized by shame, hostility, and condemnation (Morgan, 2019). Sin caused a distorting polarization within the

human population, allowing people to lean toward either worshipping the independent self or deifying their community group (Smith, 2020). Sin resulted in spiritual and physical death, severing humanity's community with God and others, yet the image of God remains intact (Etzell, 2015). God's very character requires Him to hold humanity accountable for the times mankind acts contrary to God's character. The good news of the metanarrative of Scripture, however, is that God placed accountability for humanity's corrupt actions upon His Son, Jesus, and provided a pathway of redemption through Jesus Christ; this is the Gospel. The effects of sin are both individual and corporate, thus, spiritual formation encompasses both individual and corporate aspects of human existence and intersects all subsystems within an individual's ecological framework and forms the catalyst of Christian higher education (Smith, 2020; Lowe & Lowe, 2018).

Act Three: Redemption

God sent His Son, Jesus, as the perfect Image of God. Through Jesus' life, death, and resurrection, Jesus conquered the consequences of humanity's fall and sin. The image of God was never lost, but in need of redemption. Jesus' sacrifice redeemed His people and their relationship with God, and further established Jesus' authority as the Messianic King (English, 2020). Hoekema (1994) explained Jesus' redemption of the image of God by remarking how Christ is the perfect image of God and as humans become more like God, they also become more like Christ. In Christ, sins are forgiven, righteousness bestowed, a new identity formed, and adoption into God's covenantal family as heirs of His Kingdom granted (Packer, 1973). A holistic redemption propels a holistic mission of Christian education (Nkansah-Obrempong, 2018). Modern Christian education, thus, serves as an avenue of spiritual formation and discipleship, including within online educational environments. As Christian colleges pursue

deeper learning which fosters both internal and external redemptive formation in all ecological subsystems, students develop a vision and purpose for life within God's rescue story. The act of education, then, shifts from one of information to formation (DeBoer & Cook, 2018).

Act Four: Restoration

In Jesus, the kingdom of God is restored. The image of God, redeemed by the salvific work of Jesus, will become fully restored at Jesus' final conquest over sin and death. All who believe and follow Jesus become part of the kingdom and will live in perfect community with God forever (English, 2020). In this future state, mankind will relish in perfect harmony with God, others, and with all of His creation (Etzell, 2015). The hope of this gracious restoration serves as a catalyst for community and spiritual formation within God's kingdom today and drives the activity and mission of Christian education in all of its forms.

Jesus' Pedagogical Example

As the culmination and embodiment of the metanarrative of Scripture, the life and ministry of Jesus serves as an example to the modern educator in imaginative service, loving humility, and continual presence. Lebar (1998) observed, "Christ Jesus was the Master Teacher par excellence because He Himself perfectly embodied the truth, He perfectly understood His pupils, and He used perfect methods in order to change people" (p. 65). A consistent characteristic throughout Jesus' teaching involves His creative approach to teaching. Jesus championed the use of imagination within His pedagogy and challenged listeners to both envision and faithfully advocate for God's greater Kingdom (Magro, 2019).Through one's imagination, the ability to become "lost in wonder at the creativity of the Creator" captivates both the heart and mind of the individual, fostering a lived spiritual formation and personal knowledge of the Gospel message (Vanhoozer, 2014, p. 4).

Further, Jesus viewed the act of teaching as an act of love. Jesus viewed pedagogy as a spiritual command, a divine directive that is unrestricted in its scope and application (Sales, 2020). By humbly meeting His students where they were, by understanding and serving their needs, and by developing loving community among them, Jesus provided a prudent pedagogical example for the modern educator, including those from a distance, such as through online education. Following Jesus' example, modern educators are empowered to develop a transformative, loving academic community rooted in recognition of redemption, biblical truth, theological anthropology, as well as the trajectory of God's Kingdom and rescue story. This serves as the heart of Christian spiritual formation and discipleship, regardless of the educational environment.

As it relates to Christian education and spiritual formation through distance learning environments, the trinitarian, divine nature which generated creation, inspired Holy Writ, and personalized Jesus, continues to work within and indwell modern disciples to reflect eternal glory through "complementary collaboration" (Smith, 2020). The triune community embodied by God emphasizes the capacity of mankind "to be connected to the Trinity and to one another without being constrained by time and space" (Lowe & Lowe, 2018, p. 96). Christian institutions, then, serve in response to God's nature and character by creating "an environment devoted to the development of an integrated Christ-centered education" (Otto & Harrington, 2016, p. 260). This environment, whether through traditional or distance education, should faithfully acknowledge divine character and theological anthropology, as well as connect with the metanarrative of Scripture and pedagogical example of Jesus Christ.

Paul's Pedagogical Example

The metanarrative of Scripture outlines the trajectory of the image of God within humanity and underscores a theological anthropology doctrine essential to life in community with God and others, including community developed from a distance, such as through online education. The ultimate purpose of Jesus' redemption is for the entire world to be wholly offered to its divine Creator. The apostle Paul championed this view of God's Kingdom in his writings and ministry (Fennell, 2019). Specifically, the Pauline epistles within the New Testament serve as an example of developing spiritual formation, social presence, and community from a distance. For example, Paul exhorts believers in Ephesus to engage in both personal and communal reading and study of Scripture in order to better understand and embody the character and activity of God (Ephesians 3:4-6). Lowe and Lowe (2018) concluded, "If Paul could facilitate spiritual transformation in his readers through the socially constructed mechanism of written letters, should we not expect similar results when using the socially constructed mechanism of electronically mediated communication?" (p. 96). Using Lowe and Lowe's (2018) ecologies of faith model and underscoring the practicality of Paul's pedagogical example, Forrest and Lamport (2013) articulated eight implications for spiritual formation through distance learning, among which included the "ground for spiritual formation is the gospel," (p. 116) and the "location of spiritual formation is community" (p. 117).

Similarly, Olaoreby (2016) utilized Paul's example of letter writing to the Romans as a template for teaching the elements of Christian living within a secular world. According to Olaoreby (2016), three Pauline principles of faith outline spiritual formation: justification, sanctification, and glorification. His approach views the gospel as the avenue for spiritual formation and specifically implicates the role and value of instructors upon the spiritual

formation and discipleship of students, regardless of the educational environment. The practices modeled by Paul within his formation of New Testament churches can be applied to online courses through the technologically and socially constructed educational environments of the present generation in an effort to teach and spiritually form students from a distance. These practices model faithful stewardship of an ecology of learning and formation which serves as a cornerstone of Christian education.

Spiritual Formation and Christian Education

The four thematic acts within the metanarrative of Scripture drive the act of spiritual formation. Spiritual formation serves as a central element within Christian education, intertwining both the mission and activity of Christian academic institutions, while not diminishing the intellectual and relational objectives of the institution (Otto & Harrington, 2016; Stoppa, 2017). For an education to be characterized as Christian, Roy (2020) maintained Christian institutions and instructors must orient the activity of teaching and learning around Jesus Christ and the teachings of the Bible. Likewise, Shepherd (2020) reasoned that institutions of Christian higher education will have a future as long as they are cognizant of their past, unapologetic of their Christian heritage, and driven by divine directives associated with the spiritual and intellectual formation of the next generation. The act of Christian education finds moorings in theological anthropology and the metanarrative of Scripture (Gonzalez, 2015). The activity of human life, including education, can be characterized as moral discipleship; it is a response driven by a divine command to love; the totality of the human experience receives shape from this divine command and eternal example of love (Liederbach & Lenow, 2021). Christian education as a means of spiritual formation and discipleship is both formative and worshipful in its intersections within a student's ecological framework (Lowe & Lowe, 2018).

Formative

Within Christian education, in particular, one's personal identity should be grounded within God's personal, yet sovereign knowledge of humanity (Rosner, 2017; Snodgrass, 2018). Institutions of higher education are important contexts for formation (Stoppa, 2017). For Christian institutions, in particular, formative instruction is a biblically mandated, essential aim of the Christian college and should be considered and measured similar to other educational objectives of the institution (Heringer, 2021). Otto and Harrington (2016) argued spiritual formation is the product of a Christian college; it is a coordinated commitment toward holistic development of students. The formative practices and discipline related to Christian education and spiritual growth yield love from a "pure heart, good conscience, and sincere faith" (1 Timothy 1:5; Heringer, 2021). Researchers noted, "Any education worthy of the name has to be formative, and that formation happens only through practices which inscribe a habitus—an orientation and inclination toward the world, aimed at a specific telos" (Smith & Smith, 2011, p. 9). Educational activities, by their nature, are formational (Naidoo, 2019). Self-discipline, as an agent of formation, has a larger effect on a student's academic performance than intellectual giftedness (Duhigg, 2013). Due to the formative nature of educational activity, the intentional establishment of a rule of learning enables the Christian to become disciplined within spiritual formation practice as well as within the tasks of daily life (White, 2013). The nature of formative practice emphasizes neuroplasticity and the ability of the human brain to learn, adapt, and rewire as well as the potency behind meaningful cognition, regardless of educational environment (Duhigg, 2013; Leaf, 2013). In a study, Nichols (2016) observed no significant difference in formational maturity or spiritual growth trajectories between on campus and online undergraduate students engaged in studies with a theological college in New Zealand. This

underscores how the mission and formative nature of Christian education does not diminish based upon a particular educational format or environment, yet highlights the need for such study within an American context.

Worshipful

The mission of Christian education and the act of spiritual formation cannot be separated from a heart of worship and reverence to God as the Creator and divine source of wisdom. Gonzalez (2015) posited the act of academic inquiry should be regarded as an act of devotion and obedience to God rather than simply a stimulating pastime for those who are curious. While God does not need the worship of man, man requires worship in order to develop a heart of gratitude toward God and His provision (O'Reilly, 2013). The heart of man cannot love what the human mind does not know (Wilkin, 2019). Christian education, thus, speaks to each level of an individual's ecological structure by impacting the individual's level of comprehension, personal conduct, and spiritual formation (Lowe & Lowe, 2018). The trinitarian activity whose breath composed mankind at creation serves as the agent of Christian worship, Christian education, and spiritual formation across the ages and educational mediums. Murphy (2007) remarked, "To know is to praise and to praise is to know" (p. 101). Worship and study are carefully bound together by the character and activity of God. To engage in the educational act without worship implicates an ignorant approach to the academic enterprise and diminishes the activity of God and His eternal kingdom (Willard, 2014). The identity and integrity of Christian colleges, thus, are worshipful expressions of the theological convictions which take place at the intersection of contemporary reality, vocational training, personal development, theological anthropology, the biblical metanarrative, and spiritual formation (Estep & Kim, 2010). For a Christian college or university to not address one of these areas is to limit the holistic and transformative potential

within advanced studies, including studies engaged through digital technology (Beech, 2021;

Thompson, 2019).

Spiritual Formation and Digital Technology

The role of digital technology within Christian education serves as a medium of Christian

education and not the intention of education. Within the digital environment, the call and essence

of Christian education toward discipleship remains. Spiritual formation serves as both the

pathway for and product of Christian education, regardless of the educational environment

(Lowe & Lowe, 2018; Otto & Harrington, 2016). Spiritual formation involves the learner

modeling their spiritual practice and everyday life around the example of Christ in both physical

and digital realities (Hunt, 2019). Further, digital technology provides greater accessibility to

modern adult learners (Rusitoru & Kallioniemi, 2019). The formative tendencies of digital

technologies, however, underscore the discipline necessary for digital engagement in the modern

world; yet provide opportunities for the faithful advancement of God's kingdom through

discipleship from a distance (Ferguson, 2020; Lowe & Lowe, 2018).

Online Education and Traditional Education

The mediums of online education and traditional education do differ and the significance

of this difference consummates the heart of prudent pedagogy (Ferguson, 2020). Postman (2006)

concluded, "Technology is merely a machine…Technology can never be the end of learning. It

is, has always been, and must always be the servant of human aspiration" (p. 84). As

technological advancement and cultural expectations surrounding the use of technology evolve,

online education and traditional education mediums will intersect as digital technology will

become an expectation within all educational mediums and environments (Daniela et al., 2018).

Daniel (2021) found the strengths of each educational environment to be complementary and

observed the convergence of these environments, especially within a post-pandemic world.

Interestingly, as early as 1999, researchers reviewed 355 studies and concluded there were no

significant differences in the method of course delivery (traditional vs. online) (Roberts, 2019).

Twigg (2001) affirmed this conclusion and argued for instructors to focus more on their

effectiveness as an educator rather than focus on the technology used to deliver teaching.

      The Role of the Instructor. Given both the similarities and differences of educational

mediums, the role of the instructor in developing and cultivating community, a crucial element of

spiritual formation, becomes essential, especially within online education (Ledbetter, 2017). The

viability of the role of the instructor is emphasized given the paradigm shifts related to higher

education alongside the modern advancement of online educational environments. Some

universities view the online education experience through the lens of a corporation and view

education as a product to be consumed by the student, the consumer (Nunan et al., 2000; Zhu et

al.,2021). Online instructors have a responsibility to mediate their online teaching presence

through both social and cognitive presence, providing personal, virtual, and varied means of

communication and collaboration within the online educational environment (Lee et al., 2021).

Personal interaction and active learning are key components within both traditional and online

learning environments; a corporate, transactional model of education diminishes the personal

ambition of modern education (Tartavulea et al., 2020). The role of the instructor remains a

crucial element in both traditional and online learning environments, especially in cultivating

confidence in the online learning system and learner (Tartavulea et al., 2020).

      As it relates to Christian education, Christian educators, specifically, have a biblical

calling to view their ministry of teaching as transformational rather than transactional (Holtrop,

2021). A transformational approach to online learning celebrates and cultivates God's unique

design of each student. Through the intentional integration of faith within the online learning environment, students are allowed to experience a variety of worldviews and perspectives, while also provided an opportunity to assert ownership of their own spiritual development. The online course community, carefully managed by the Christian instructor, provides an opportunity to promote depth, both in course content and in spiritual formation (Holtrop, 2021). Gresham (2006) acknowledged the educational technological advancement and advocated for Christian instructors to embody a "divine pedagogy" by employing a "pedagogy of incarnation…[embodying] truth in the life of the instructor and the instructor's ability to assist students in discovering and incarnating that truth in their own lives" (p. 26). Instructors have a unique role in carrying out the mission of the Christian college in providing holistic discipleship as well as rigorous vocational training grounded within the Christian faith (Gowan & Miner, 2021). By emulating Jesus within their course interactions, Christian instructors, regardless of educational environment, should model spiritual formation within their own lives with humble transparency and center the activity of the online course with the truth of Gospel, thus, cultivating growth and community (Ferguson, 2020). By providing individual attention throughout the course, instructors are able to motivate students toward academic achievement (Tartavulea et al., 2020). For the Christian educator, in particular, this personal approach to education, acknowledges the divine personification of wisdom found in Jesus Christ and the eternal, triune community which energizes activity within God's kingdom (Smith, 2009). Through a holistic approach to online pedagogy, instructors are able to develop a rich community for students that fosters spiritual growth reflective of divine character and action within the metanarrative of Scripture while also underscoring theological anthropology.

Distinctions of Educational Environments. The distinctions between online and traditional educational environments have caused some to repudiate online environments, especially as it relates to Christian higher education and spiritual formation. According to some scholars, the practicalities afforded by online education cannot outweigh a theological conviction for the physical presence of teaching (House, 2010; Kim, 2020). These scholars, however, may over emphasize the incarnational presence of Christ within the narrative of Scripture. Throughout Scripture, God disclosed Himself in a variety of indirect ways, such as through visions (Genesis 15:1), dreams (Genesis 20:3), a cloud (Exodus 14:19), thunderstorms (Exodus 19:16) or a voice from heaven (Daniel 4:31) (Kierspel, 2019).

On the other hand, proponents of online Christian higher education, argue for the careful design of the online classroom in order to best prioritize Christian convictions through the use of technology (Beaty, 2018; Ferguson, 2020). The faithful application of Christian values, such as human and missionary values, upon online Christian higher education will yield viability and sustainability of online Christian education, especially in response to the post-COVID pandemic educational era (Kolibu et al., 2021). The distinctive incarnational posture of Christian education allows Christian colleges to create, cultivate, and celebrate the unique ecosystems and communities of modern students by drawing students into the grander story of God's sovereign design of creation through the act and activity of higher education (Iselin, 2021). Through the intentional design of online courses, students are provided a participatory formative experience within the online educational environment that is captivated by a life of faith and marked by God's sovereign work within His kingdom (Cunningham, 2019; Necula, 2021).

Online Education and Modern Adult Learning

The online educational environment acknowledges the distinctive nature and practice of modern adult learning. The advancements and accessibility afforded by online education has cultivated a more diverse modern student population, including a rise of students from minority populations, such as Asian and Hispanic families (Espinosa et al., 2019; Rusitoru & Kallioniemi, 2019). According to one study, a growing population (75%) of undergraduate students is considered non-traditional, as they are students over the age of 25 and at least 70% also hold full-time jobs (NCES, 2020). Online higher education, as well, has seen significant growth, as 97% of college students reported switching to online instruction over traditional education due to concerns over COVID-19 (Education Data, 2020).

Adult Learning Theory. Adult learning, a central theoretical element to higher education, details the adult learner as a self-directed, problem centered, and internally motivated individual (Knowles, 1980). The prior knowledge of an adult learner helps facilitate learning within the educational environment as well as serves as a key motivator while engaged in academia. Unlike generations before them, the current generation of undergraduate students has grown up in a digital era and possesses keen prior knowledge associated with technology as they engage in the online learning environment. One study which surveyed older teenagers within Gen Z (born 1995-2009) found 95% of those surveyed had access to the internet and 45% of those surveyed reported being online constantly, mostly through engagement on social media platforms (Anderson & Jiang, 2018).

Modern adult education, in particular, is recognized as a purposeful, voluntary, and supplementary activity to the main responsibilities of the adult learner, especially within non-traditional environments, such as online education (Bohl et al., 2017; Remenick & Bergman,

2020). Several scholars articulated a holistic, participatory approach to adult learning. For example, Beard (2017) connected theories related to adult learning and transformative learning to underscore the identity, process, and experience which occurs in "missional spiritual formation", which provides an experiential process of formation within the student, yielding evidence of community, mission, and obedience. Moreover, Bass (2012) found Knowles' adult learning theory to underscore the social context required for adult learning and the key differences between adult learning and other developmental learning theories.

  The Condition of Undergraduate Students. Undergraduate students born from 1995-2010 are described as "true digital natives" as they have grown up with exposure to digital technologies, the Internet, and social media (Francis & Hoefel, 2018, para. 1; Kinnaman & Matlock, 2019). Online learners today are consistently mobile, technology driven, and seek community; this trend only accelerated due to the global COVID-19 pandemic (Barna & Impact 360 Institute, 2018; Otto & Harrington, 2016; Wilson, et al., 2021). The current generation of college students values individual expression yet shares a strong belief in the collective welfare of all living things. These students also value genuine community while maintaining the merit of one's freedom and independence (Sakdiyakorn et al., 2021). Furthermore, modern undergraduate students often have a subjective view of truth, allowing them to make decisions and relate to institutions in ways which are analytical and pragmatic (Francis & Hoefel, 2018). A recent study shows many contemporary students view technology and social media platforms, in particular, as a means of self-expression as well as an opportunity to build and convey their own identity (Vițelar, 2019). This underscores the need for contemporary Christian colleges to engage with the current generation in ways which are authentic, practical, as well as digital.

Spiritually, the present generation of college students is the first generation of college students within a post-Christian, technologically connected world (White, 2017). Millennials and Generation X populations constitute a growing number of individuals who are stepping away from organized religion and spirituality. Yet, many young adults describe their spiritual practices as "authentic, maturing, and corrective but also as guarded, fluctuating, and insecure" (Bailey et al., 2016, p. 99). Many college students report how spirituality and faith are often interwoven and not distinct natures of their own spiritual identity (Gallagher-Stevens, 2021). White (2017) posited the members of the current generation of college students are marked by spiritual illiteracy and do not demonstrate a basic knowledge of the fundamental tenants of the Bible and Christian life. The decreased religious engagement among young people may be a behavior indicator of ongoing religious and spiritual struggles among modern young adults (Exline, 2020; Twenge et al., 2016). Other studies suggest the escalating politicization of religion may play a role in the religious disaffiliation among young adults (Bengtson, 2017; Djupe et al., 2018; Hout & Fischer, 2014). Further, researchers found the secularization of modern young adults may be associated, in part, with longer years engaged in academic study (Hungerman, 2014; Liang & Dong, 2019). Without a clear framework of faith, while constantly entertaining a post-modern worldview through their digital devices, this generation experiences a lack of transcendent meaning of life, as well as reluctance toward belief in absolute truth (Ninan, 2021; White, 2017). The decreased engagement of young adults with matters and practices related to spirituality underscores the necessity of Christian higher education within the modern, digital world.

Technology and Formation

The innate formative tendencies of digital technologies highlight the seismic shift in generations toward "screen discipleship" (Bell et al., 2019, p. 27). Veldsman (2019) concluded

modern technological utilization and innovations imply agency and this agency should be influenced by theological considerations, especially related to personhood, dignity, values, and community life. This is not often the case, however. The unprecedented advancements in technological innovations and digital expectation within modern life have accelerated addictive technological behaviors among young adults, in particular. A 2018 study found adults spend 11 hours daily engaged in digital media (Time Flies, 2018). Research shows the current generation of college students watches more online, streaming entertainment than any other demographic, averaging one hour and eleven minutes per day, with over two hours daily spent engaging on social media platforms (Radcliffe, 2017). Radcliffe (2017) also reported the leading reason for social media usage among young adults was to fill spare time. The pace and abundance of information along with progressive technological innovations has caused a fragmentation of time, attention, and reading among college students, in particular (Xie, 2019). The escalation of digital media consumption in the modern era has drastically influenced personal additive behaviors, driven distractions, and decreased overall mental concentration, especially within learning environments (De-Sola Gutiérrez et al., 2016; Time Flies, 2018). In one study on the effects of the acceleration of technology use within modern life, Alter (2017) found less screen time and more face-to-face interaction actually improved social intelligence and argued that humans function best when a balance exists between togetherness and separateness. Formation, then, becomes an exercise is limiting the distractions from technology and developing a space for meaningful personal reflection (Ninan, 2021).

Negative Effects of Technology. The increased engagement of undergraduate students with digital technology and social media platforms has steered a deterioration of students' proficiencies of academic reading and writing, a dehumanization of modern educational

environments, the distortion of social interactions between instructors and students, as well as an increasing social isolation of students (Alhumaid, 2019; Wentworth & Middleton, 2014). Negative interactions with technology and social media platforms activate the brain's amygdala in ways which trigger a stress response, raise cortisol levels, disarm the brain's prefrontal cortex and, ultimately, decrease a student's ability to learn and process information (Besson, 2017; Lee, 2017; Karges-Bone, 2014). Despite the connection afforded to the modern young adult through technology, only a third of respondents in a 2018 study reported feeling cared for and 40% of respondents recorded feelings of anxiety, depression, and social isolation (Kinnaman & Matlock, 2019).

Another study reported excessive use of technology disrupted the sleep patterns of 86% of surveyed college students as well as negatively impacted the academic performance of 82% of the study's participants (Son et al., 2020). The formative tendencies of modern technology underscore the need for Christian colleges and students to practice "purposeful disengagement with an eye toward calculated reengagement" in order to develop the discipline required for cultural engagement and faith sustainability in the modern, digital era (Saylor, 2020, p. 90). Precedent literature reports negative effects of technology upon personal formation.

Positive Effects of Technology. On the other hand, precedent literature also reports positive effects of technology upon personal formation. In a synthesis of studies conducted from 2014-2019 related to mental health and digital use among adolescents, Odgers and Jensen (2019) concluded these reports detail small associations between the amount of daily digital technology usage and an adolescents' well-being. The findings do not offer a way of distinguishing cause from effect and are unlikely to be any clinical or practical significance. Similarly, Orben (2020) found the use of technology mirrored the complexity of modern human life and conveyed both

the small negative emotional effects of excessive technology use, such as mood or depression, as well as the positive social effects of technology use, such as social connectedness. Furthermore, researchers found positive engagement on social media platforms generated responses within neurological regions associated with reward processing and prosocial behaviors (Banisch et al, 2020; Sherman et al.,2018).

Additionally, digital technologies proved beneficial in providing assistance to undergraduate students in need of learning accommodations, including students with traumatic brain injuries and disorders (Brown, 2018; Jamieson, 2020). Technology also proved beneficial in providing access to medical and psychiatric care to undergraduate students. Interventions through technology proved beneficial in helping college students effectively manage the stress associated with undergraduate life (Harrer et al.,2018). One university utilizes a social media platform to help online students assess their own well-being, including academic, physical, mental and social health. Depending on how students score themselves within the assessment, the university is then able to connect students to academic or medical professionals for any required assistance (Lederman, 2019). The equitable experience afforded to students requiring learning accommodations through online education means more than a particular pedagogical preference or legal compliance by a college or instructor. Theological anthropology and active engagement in God's grander story implies action and a specific lifestyle characterized by particular values and an ethic of care for all students (Rayner, 2020). Within Christian education, in particular, technology creates space for a variety of students to engage in beneficial dialogue between theology and media. While technology offers both positive and negative effects upon an individual's personal formation, technology ultimately provides an avenue for an individual's

theological convictions to serve as an interpretive framework within the ecological system of an individual's relationships and experiences (Lowe & Lowe, 2018; Millsap, 2014).

Spiritual Formation through an Ecology of Learning

The nature of formative practice finds nurture through a holistic view of self. Formative practice intersects with each system within an individual's personal ecological configuration (Lowe & Lowe, 2018). Copan (2016) articulated a holistic definition of a spiritual formation to include the redemptive and intentional formation of an individual's interior and exterior life in order to develop the character of Christ. Through the process of spiritual formation an individual's personal ecology of heart, mind, and soul become indwelled and embodied by God.

Spiritual formation practices, in particular, are designed to become routine habits and often form deep connections within one's brain and psychology (Firth et al., 2019; Francis et al., 2020). Modern neuroscience argues for the human brain's ability to learn, adapt, and rewire itself. The science of neuroplasticity within the brain underscores how what is thought about the most will grow (Leaf, 2013). These formative habits develop an individual's character and fuel personal action. By engaging in spiritual formation practices, an individual is able to rewire the brain and change neural networks (Copan, 2016). In a study, Maddix and Andrews (2018) found undergraduate students who habitually engaged in spiritual formative practices recorded benefit to their psychological and physiological well-being, including brain energy, but this study does not address online undergraduate students. The formative nature of Christian education not only helps students focus toward their relationship with God but also positively affects their mood and cognitive efficiency (Maddix & Andrews, 2018). By engaging and empowering a student's spiritual formation, a Christian college or university creates an educational environment where

faithful response to one's discipleship and divine vocational calling can be recognized and cultivated.

In addition to an individual's neurological network, an individual's experiential network can be viewed as an ecological system, namely a living and evolving compilation of personal experiences and learning which grow and mature over time. Spiritual formation occurs through a hierarchy of an individual's past and present experiences and is not limited to the online educational medium and environment. Lowe and Lowe (2018) concluded a student's spiritual formation could be cultivated through a range of settings including encounters beyond the traditional campus, which are physical, individual, or virtual. Through online education, Lowe and Lowe (2018) argued students are able to involve a larger, more diverse ecosystem with more interaction and interconnection which has the potential of lasting impact on students.

Spiritual formation, while imperative to the mission of Christian education, must also be perceived as such within the daily practices, experiences, and ecosystems of the institution. In a recent study, millennial students (born 1980-2000) exhibited a weakening state of spiritual formation among the studied generation (Horan, 2017). Millennial students engaged in Christian education reported the need for relationally-based spiritual formation opportunities, such as mentoring. There is, however, inconsistency within implementation of spiritual formation programs. Horan (2017) concluded schools are inconsistent with what respondents think should be done in order to foster spiritual formation of students. Another study found spiritual formation within Christian education remains largely disconnected from the wider culture and curriculum of the institution (Smith et al., 2021). Spiritual formation practices should be embodied within the pedagogical design and practice of the school in order to develop solid intersections within a student's wider ecological framework (Lowe & Lowe, 2018; Smith et al., 2021). Morrow (2020)

reported that 59% of undergraduate students leave the Christian faith during college years and need consistent apologetics, wise relationships within community, and rhythms in order to practice their faith. Within online undergraduate education, specifically, these reports underscore the need to provide collaborative academic and spiritual communities faithfully mediated through digital technologies.

The Role of Community

Technology often caters to the desire of man for autonomy and unencumbered independence. Undisciplined use of technology can allow students to become increasingly private and self-focused. Spiritual formation acknowledges an individual's own ecosystem and serves as a reminder of mankind's need for active participation within the grander Christian story and Christian community (Lowe & Lowe, 2018; Setran, 2020a). Technology should not take away from pedagogy or theological anthropology, but allow the Christian faculty member and institution to facilitate growth through community. Community serves as an essential element to the online adult learner as well as within spiritual formation (Cunningham, 2019; Ferguson, 2020). The fostering of such an environment online requires the commitment and gifts of the faculty member and institution (Roberts, 2019; Rovai et al., 2008). As it relates to spiritual formation of undergraduate students, Francis et al. (2019) found undergraduate students who engaged in spiritual formation practices within a group exhibited a greater depth of personal discipleship and a clearer vocational calling, yet limited the study strictly to students engaged in on campus studies. Etzell (2015) articulated the key practices which helped online graduate students engaged in ministerial training develop community and honor theological anthropology from a distance, but found more research needed related to the spiritual formation of online undergraduate students. Transmission of shared faith practices throughout a college student's

childhood as well as continued engagement with communal spiritual practices, such as prayer and Bible discussions, serve as key indicators of young adults developing a personal faith and faith community which lasts for a lifetime (Denton & Flory, 2020).

The perception of connectedness, or sense of belonging to the larger community, is an integral value within the current generation of college students, especially as it relates to college life (Ninan, 2021). In one study, social support from the college community, often through online platforms, provided positive behavioral manifestations which allowed students to feel important and valued (Strayhorn, 2018). Academically, strong community within online learning environments fosters higher levels of student engagement, less disruptive behaviors, better grades, higher attendance, and lower dropout rates (Darby, 2019; Quin, 2017).

In addition to the social and academic life of undergraduates, relational-based practices, such as community, are essential to the process of spiritual formation and discipleship. Discipleship is embodied and is best exercised within the sensory experience and community of everyday life (Coates, 2021). Spiritually, community serves as a way to perceive the spiritual development of students within their larger ecosystem while also acknowledging that online education serves as only a part of a student's larger ecosystem (Lam, 2020). Community, as an important element of spiritual formation and even within the vast ecosystem of the online undergraduate student, breeds transformation. Within a recent study, communal spiritual formation practices of traditional, on campus undergraduate students, such as mentoring and small group meetings, developed perspective transformation of respondents associated with connectedness to God, engagement in ministry, meaningful content, learning pertinent skills, sharing and discussion, relationships, and mentoring (Mwangi, 2018).

The Role of the Local Church. A growing number of researchers have concentrated on the role of the faith community, particularly the local church, in spiritual formation (Dunlow, 2021; Maddix, 2018; McPherson, 2018; Sironen, 2020). The spiritual formation practices of the Christian college should not replace church attendance (Woodward, 2020). The local church serves as an expression of the gospel and Christian tradition within the community's local, social, and cultural contexts (Naidoo, 2019). English (2020) argued community found within the local church serves as the primary means of holistic discipleship and spiritual formation. The shared story of God's rescue provides an avenue of identity, formation, and organizing understanding for the Christian within the faith community (Naidoo, 2019). McPherson (2018) argued the understanding of the metanarrative of Scripture enables individuals to recognize and participate in God's grander story, yielding growth toward Christlikeness and engagement in faith community. For example, students engaged in online education through a particular seminary follow a model that couples online classes with face-to-face mentoring and ministerial practice within a local church (Lewis, 2018). According to one study, undergraduate students who attended a college affiliated with a local church, for instance, are more likely to follow a Christian worldview and live in ways consistent with the teachings of the Bible (Prince, 2020). Furthermore, Boyles and Pittman (2021) found undergraduate students actively engaged within their local church exhibited a greater propensity of shaping their vocational journey by the local church and a Christological hope. Similarly, Okunlola et al. (2021) reported a positive significant correlation between an undergraduate student's consistent church attendance and personal happiness. Within Christian higher education, spiritual formation programs often provide a higher frequency of worship in order to promote spiritual growth. Spiritual formation programs within Christian colleges are often designed with an awareness of a student's larger ecosystem

and serve as supplements to the spiritual activities within the community of the local church (Woodward, 2020). Spiritual formation is fostered through an ecosystem of an individual's experiences and involvement within their community and is not reduced, but rather, expanded through the online educational medium.

Summary

In summary, this chapter explored the precedent literature associated with an ecological view of learning and faith development. An individual's holistic experiences and environments encompass a hierarchy of systems which interconnect and engage in reciprocity, even as it relates to spiritual formation (Brofenbrenner, 1992; Lowe & Lowe, 2018). The present study further documents the theological moorings of anthropology and how online Christian education intersects with the metanarrative of Scripture as well as spiritual formation (Gonzalez, 2015; Otto & Harrington, 2016; Smith, 2009).

This section further highlighted previous research associated with spiritual formation within online Christian graduate programs, such as ministerial training at the seminary level, and traditional, on-campus, international academic programs (Etzell, 2015; Francis et al.; 2019; Nichols, 2016; Wang, 2020). Additional studies viewed spiritual formation of online undergraduate students through the theoretical lens of community (Lam, 2020; Lewis, 2018). Unique to the present study is the nature of spiritual formation within online undergraduate students engaged in studies at an American Christian college through an ecological theoretical lens. Through diverse interactions across an individual's personal ecosystem, an increasing amount of interactions and interconnections develop which contributes to greater personal development and formation. Online education fosters greater influence and interaction across a student's ecosystem (Lowe & Lowe, 2018). The trajectory of online education as well as the

unique composite of adult learners entering online undergraduate degree programs requires additional research within the specific context of an American Christian college associated with spiritual formation of online undergraduate students (Lam, 2020, Ledbetter, 2017; Naidoo, 2019; Nichols, 2016). In the context of an online degree program through a Christian college, the ecology of learning and faith recognizes the challenges of online Christian education and modern spirituality. An ecological system of faith and learning fosters holistic spiritual development and recognizes the trajectory of Scripture's metanarrative as well as the theological foundations of modern pedagogy, including learning and discipleship from a distance (Lowe & Lowe, 2018). Spiritual formation practices within online undergraduate studies facilitate a student's spiritual growth as well as cultivate a personal awareness of one's place in God's rescue story, shaping the individual to become a lived interpretation of Scripture's story (Vanhoozer, 2018).

CHAPTER THREE: METHODS
Overview

Researchers have described the experience of spiritual formation with online seminary students, online undergraduates in an international context, as well as the role of the instructor within the spiritual formation of online undergraduate students (Etzell, 2015; Lam, 2020; Ledbetter, 2017; Lewis, 2020). The purpose of this case study was to describe how online undergraduate students experience spiritual formation at a Christian college. Further studies recorded the theological and historical foundations of Christian higher education, the pedagogic and technological innovations of the present age, and the evolving nature of the contemporary undergraduate student (Gonzalez, 2015; Naidoo, 2019; Kinnaman & Matlock, 2019; Otto & Harrington, 2016; Smith, 2020). Education and spiritual formation, then, occurs through an interconnected network of an individual's experiences and environments (Bronfenbrenner, 1992; Lowe & Lowe, 2018).

Further research was needed on how online undergraduate students experience spiritual formation through online learning environments within the context of a Christian college in the United States. As such, a qualitative multiple case study approach was utilized in order to describe the experience of spiritual formation of online undergraduate students and glean key principles and best practices associated with the integration of faith and online learning. This chapter covers the specific methodological approach of the present study in greater detail. The subsequent topics will be addressed within this chapter: research design, setting, participants, procedures, my role in the study, data collection, data analysis, and the trustworthiness of the study.

Research Design

According to Creswell and Poth (2018), qualitative research should be utilized in research when "a problem or issue needs to be explored" (p. 47), when there is a need to "study a group or population" (p.48), and to "identify variables that cannot be easily measured [in order to have] a complex, detailed understanding of the issue" (p. 48). Similarly, Carlson (2008) contended qualitative researchers focus on discovering, describing, and explaining a phenomenon. The intent of this qualitative multiple case study was to explore the central phenomenon of spiritual formation, specifically associated with its intersection with digital technology within online higher education, and to describe how online undergraduate students experience spiritual formation through online learning environments while engaged in studies at a Christian college. By utilizing a qualitative research methodology, a better understanding of the phenomenon of spiritual formation through distance learning environments can be acquired. According to Creswell and Poth (2018), the multi-method focus of qualitative research results in an interpretive and naturalistic approach to research. Through a qualitative approach, the participants within this project were studied in their natural settings in an attempt to interpret the phenomena of spiritual formation through their specific perspectives (Creswell & Poth, 2018; Patton, 2015).

Within the present study, a qualitative, collective (or multiple) case study design was used to conduct analysis among 12 represented cases. Case studies, such as the one in the present study, approach research through a constructivist paradigm (Baxter & Jack, 2008). Yin (2018) found case studies provide for empirical inquiry that "investigates a contemporary phenomenon (the 'case') in depth and within its real-world context" (p. 16). According to Creswell and Poth (2018), a collective case study, in particular, allows the researcher to select multiple case studies

to illustrate a central issue or concern and these cases "can be bounded or described within certain parameters, such as a specific place and time" (pp.98- 99). This particular design was selected in order to better understand the experiences of online undergraduate students related to spiritual formation through online learning. This study goes beyond a simple examination of the phenomenon of spiritual formation within online students to identify key principles and best practices associated with the integration of faith and learning within the online educational environment.

Stake (1995) argued for two approaches toward case study research, namely intrinsic study or instrumental study. Intrinsic studies, in particular, view the research problem as specific to the case subject itself and not as a general problem. Instrumental studies, on the other hand, use multiple cases in order to gain insight into a specific phenomenon (Stake, 1995). Collective case study approaches, such as the approach of the present study, are instrumental in nature as they involve more than one case linked by a shared phenomenon (Stake, 1995). Researchers utilize the case study approach in order to make cases understandable and are studied in an effort to provide generalization to other cases (Stake, 1995). Through this specific research design, the present study addressed multiple cases (online student experiences) of the shared phenomenon (spiritual formation through online learning) as outlined within the research questions for this particular study.

Research Questions

This study utilized qualitative, multiple case study methodology in order to describe the experiences of online undergraduate students and spiritual formation. This study gleaned principles and best practices from student experiences with spiritual formation while engaged in an online learning environment. The following research questions guided the study:

Central Research Question

How do online undergraduate students describe their experiences of spiritual formation while engaged in online studies?

Sub Question One

How do online undergraduate students describe their experience of spiritual formation in an online environment?

Sub Question Two

How do online undergraduate students experience encouragement related to their own spiritual formation?

Sub Question Three

How do online undergraduate students' experiences of spiritual formation connect to the online educational environment?

Setting and Participants

Creswell and Poth (2018) argued the purposeful selection of the research setting and profile of participants within qualitative research provides the framework for a more focused understanding of the research problem and central phenomenon within the study. A qualitative case study methodological design provides the tools for researchers to study complex phenomena within their particular contexts (Baxter & Jack, 2008).

Setting

A qualitative case study methodological design provides the tools for researchers to study complex phenomena within their particular contexts (Baxter & Jack, 2008). The setting of the current study involves multiple Christian colleges within the United States selected through convenience sampling. According to the National Center for Education Statistics, of the over

4,300 degree-granting institutions of higher education within the United States, just over 1,000 of

these institutions associate themselves with a religious affiliation (National Center for Education

Statistics, 2018). Each of the Christian colleges within the present study offer online

undergraduate programs and are affiliated with the Council for Christian Colleges and

Universities (CCCU) or Association of Christian Schools International (ASCI). For its part,

CCCU serves as the largest, global Protestant educational organization. CCCU advances

excellence in Christian education through a tri-fold approach: the integration of biblical truth

across disciplines, a commitment to moral and spiritual formation of students, and the graduation

of students who serve as redemptive voices in the modern world (Council for Christian Colleges

& Universities, 2017). Three Christian colleges were selected for the present study.

First, Christian College A recorded a total enrollment of 123,445 undergraduate students

in 2021. 78% of the university's total undergraduate population is exclusively enrolled in

distance education programs. The university offers over 130 online undergraduate programs.

Enrolled students range in age, ethnicity, and gender (U.S. Department of Education, 2021).

Second, Christian College B documented a total of 13,353 undergraduate students in

2021. 76% of the university's total undergraduate population is exclusively enrolled in academic

programs online. Over 150 online undergraduate programs are offered by the university. 63% of

the university's online undergraduate students are women (U.S. Department of Education, 2021).

Finally, Christian College C recorded a total enrollment of 2,780 undergraduate students

in 2021. 11% of the university's total undergraduate population is exclusively enrolled in the

university's online programs. The university offers 10 online undergraduate programs. 76% of

the university's online undergraduate students are women and 65% of online undergraduate

students are above the age of 30 (U.S. Department of Education, 2021).

The particular phenomenon of spiritual formation through online learning is not unique to the setting of the current study. Through the present case study, a collective case study was employed to describe the experience of spiritual formation from the digital learning environments of online undergraduate students within these specific Christian institutions of higher education as well as glean principles and best practices from the everyday experiences of spiritual formation of online undergraduate students.

Participants

As it relates to participant selection and sampling within qualitative case studies, Stake (1995) found sampling to occur at two levels, selecting the case and selecting data sources within the case. 12 participants were purposively selected for the present study and will be chosen based on full-time enrollment as a student in an online undergraduate program within three participating Christian colleges associated with the CCCU or ASCI. Additional snowball sampling will take place in order to acquire the number of participants required for the present study. Participants must be professing Christians. Gender, age, marital status, and church denominational affiliation of the participants are not specified in this study, but these demographics are gathered for informational purposes. The purposive sampling of participants involves the selection of information-rich cases for in-depth study. Patton (2015) argued such information-rich cases yield depth and insight to the issues of central importance to the study. Further, Yin (2018) encouraged researchers engaged in purposeful sampling to select participants based on their anticipated richness and relevance to the study's research questions. Maximum variation sampling procedures were utilized in the study. This sampling procedure involves the researcher sampling cases or individuals which differ in some characteristic or trait (Creswell & Poth, 2018). The diversity of data collection may increase the study's validity (Merrium, 2009).

Within the present study, students were selected from various Christian colleges and online programs in order to achieve this diversity and validity within the study.

Researcher Positionality

My personal motivation in this topic stems from my vocational ministry as a pastor as well as my personal engagement in online graduate education. Additionally, the global health crisis of 2020 has solidified the indelible nature of the digital learning landscape. It is in this context that people are seeking hope and truth. Christian education serves as a distinctive way to think about academic life grounded in the historic Christian faith. This section details my positionality with the present research associated with the spiritual development of online undergraduate students.

Interpretive Framework

An interpretive framework, or research paradigm, refers to the researcher's beliefs which structure and guide the actions of the researcher (Creswell & Poth, 2018). For the present study, a biblical worldview and constructivist paradigm helped provide shape to the present study in understanding useful techniques implemented by a Christian college within the spiritual formation of online undergraduate students. Through a biblical worldview, spiritual formation serves as both the product and process of Christian education. As a social constructivist, I consciously choose to seek meaning and understanding of the world around me (Creswell & Poth, 2018). Successful learning employs a dedicated, active learning environment where the student is an active participant in the construction of social reality, learning, and knowledge (Creswell & Poth, 2018; Slavin, 2019). A concern within this study was how digital social engagement intersects and influences other aspects of an individual's social reality (ecosystem), including spiritual formation.

Philosophical Assumptions

Philosophical assumptions delineate the particular stances of the researcher which direct the course of the particular study (Creswell & Poth, 2018). These assumptions are consistent throughout the life of the researcher and articulate key values and belief systems within the life and work of the researcher, specifically the particular lens through which the researcher views and approaches the world. Three philosophical assumptions are addressed within this dissertation: ontological, epistemological, and axiological.

Ontological Assumption

The ontological assumption relates to the researcher's view of reality (Creswell & Poth, 2018). Within the present study, I find a singular reality within God's Word and ways. His character drives the activity of history and present reality. All of creation, including the act of education, is filled with God's glory (Isaiah 6:3). Human understanding of eternal truth, which is wound within the character of God, is imperfect and only enlightened through grace (2 Corinthian 2:5). The reality of human existence is that we are dependent creatures living an eternal story that is not our own, but graciously invited to come to saving knowledge of Christ (Grudem, 2009).

Epistemological Assumption

The epistemological assumption relates to how the researcher knows reality (Creswell & Poth, 2018). Qualitative research records subjective experiences of a real phenomenon. My firsthand experience with the phenomenon of spiritual formation through online Christian education influenced my approach to this study. This axiological assumption influenced my selection of spiritual formation of online undergraduate students for this study due to my experience with spiritual formation during my online graduate studies. Through this assumption, I was able to position myself within the study by identifying my theoretical locus in relation to

the context and setting of the research (Creswell & Poth, 2018). As a qualitative researcher, I am the human instrument fully immersed in the environment studied. I collected the participants' views objectively, allowing equitable voice, and without interjecting my interpretations (Patton, 2015).

Axiological Assumption

The axiological assumption relates to how the researcher's values are known and brought into the study (Creswell & Poth, 2018). My personal convictions, experiences, and values drive three main beliefs within the present study. First, spiritual formation is one of the main objectives of Christian higher education and of the research site. Second, Christian colleges seek to shape students spiritually both in traditional and online undergraduate programs. Third, spiritual formation can occur from a distance through online learning environments and mediums and is formed through the framework of the metanarrative of Scripture.

Researcher's Role

Qualitative research involves interpretative research as "the inquirer is typically involved in a sustained and intensive experience with participants" (Creswell & Creswell, 2018, p. 183). The inauguration of research expects reflexive identification of the researcher's biases, values, personal background, and assumptions which shape the interpretation and analysis of data. Within qualitative research, Garrison et al. (2006) found researchers typically conduct data analysis and code "in isolation according to his or her personal phenomenological point of view" (p. 3). Qualitative studies allow the researcher to insert himself into the research process as a human instrument who collects data within the natural setting while allowing the participants' unique voices experiences to be underscored (Creswell & Poth, 2018; Patton, 2015).

Within the present study, data was collected from participants who provided consent to participate in the study and without my influence as I had no authority over the participants. However, as qualitative studies often involve the researcher's personal experiences and assumptions, I am an alumnus of Christian higher education institutions for both undergraduate and graduate studies. I am currently an online doctoral student at a Christian university while serving vocationally as a pastor. My own educational and professional background underscore a personal paradigm and biases associated with the necessity of spiritual formation practice within the life of a Christian as well as the viability of Christian higher education.

Procedures

In this section, the specific steps which will be taken within the present study will be outlined in order to provide thick, full descriptions for replication for future research. The permissions, recruitment plan, and procedures for data collection, analysis, and trustworthiness are outlined within this section. The following descriptions also serve as explanations and accountability for the present study's triangulation and dependability.

Permissions

The first step of research involves acquitting necessary permissions to engage in the present study. Before data was collected, I applied to Liberty University's Institutional Review Board (IRB). Upon receiving approval from the IRB (Appendix A), I began to recruit participants utilizing a strategic recruitment plan within three Christian colleges.

Recruitment Plan

Three Christian colleges aligned with the CCCU or ASCI have been identified through convenience sampling. Approval from each college's IRB was requested for permission to conduct research at their school (Appendix B). After receiving approval from each participating

college's IRB, emails were sent to Provosts and/or Online Deans at the participating Christian colleges requesting permission to recruit students from their online undergraduate student population which meet the criteria for the present study (Appendix C). In an effort to add value and diversity to the study's participants, snowball sampling was utilized through a social media recruitment post for participants within the participating Christian colleges (Appendix D). This announcement served as an invitation for student participation in the current study which involved a virtual, recorded, and transcribed interview as well as a personal journal exercise occurring during the semester in order to identify students' understanding of spiritual formation and experience related to spiritual formation and technology. A consent form was also made available to and completed by all interested parties detailing the scope and perimeters of the present study as well as allow for informed consent for participation within the present study (Appendix E). By selecting students from various Christian colleges and online academic programs, the diversity of data collection increased the study's validity (Merriam, 2009). A one-phased approach to participant screening allowed for a streamlined process for candidate qualification (Yin, 2018). Participants were recruited utilizing purposive sampling methods and procedures. Once a student accepted the invitation to participate in the study, I then narrowed the participants down to 12 individuals based on eligibility, availability, and willingness to participate in the study. Informed consent and pseudonyms were utilized to respect the privacy of all participants.

Data Collection Plan

Data collection and analysis within qualitative research involves the preparation and organization of data for thematic analysis, coding, and representation through discussion (Creswell & Poth, 2018). This case study is substantiated through qualitative research practices

and uses methodological triangulation to capture perspectives on the experience spiritual

formation of online undergraduate students. The data collected from the present study allowed

me to glean key principles and best practices related to the integration of faith and online

learning based on the experiences of the current study's participants. The present research

collected data through three strategic methods: interviews, documents, and journals.

Individual Interviews (Data Collection Approach #1)

Interviews within qualitative research allow the researcher to understand the world from

the participants' point of view and develop meaning from their experience within their specific

context (Brinkmann & Kvale, 2015). In the present study, participants engaged in one recorded,

transcribed, and virtual interview using digital meeting software. The duration of each interview

was one hour. The questions followed three broad categories: the participant's personal

experience with spiritual formation, the participant's experience with technology as part of

spiritual formation, and the participant's experience with his or her online education and spiritual

formation. The following questions comprised each interview session (Appendix F):

Individual Interview Questions

1. Please introduce yourself.

2. In your own words, define "spiritual formation"?

3. What are the factors which influence your personal spiritual formation?

4. What are the spiritual formation practices/disciplines you personally engage in?

5. How often do you engage in the spiritual formation practices/disciplines just described?

6. In what manner and how often do you use technology for spiritual formation practices?

7. What differences, if any, do you find in your spiritual formation as an online student

   compared to traditional educational environments (if applicable)? Explain.

8. What efforts has your school taken to encourage your spiritual formation?

9. What efforts has your school taken to monitor your spiritual formation?

10. What specific techniques did your instructor use to facilitate spiritual formation at the course level?

11. How would you describe your experience with the efforts and techniques employed by the college and/or instructor related to spiritual formation?

12. In your opinion, what is the role of your Christian college in the spiritual formation of online students?

13. Describe your experience within the online learning environment.

    a. How would you describe the sense of faith community within the online classroom?

    b. How would you describe the importance of faith community within the online classroom?

    c. How were you encouraged or discouraged in your spiritual formation due to this faith community?

14. What else would you like to add, particularly as it relates to your experience as an online student with spiritual formation and technology?

Questions one through five allowed for a general introduction of each participant and to identify each participant's personal understanding and experience with spiritual formation practices. Spiritual formation practices serve as the Christian's response to the reality of divine grace and continual configuration into the Image of God and the likeness of Jesus Christ (Greenman & Kalantzis, 2015; Whitney, 2014). These questions were intended to be

straightforward and non-threatening (Patton, 2015; Seidman, 2013), and will help develop my understanding of each participant, their background, and their foundational understanding of spiritual formation.

Question six allowed for identification of each participant's personal practices related to spiritual formation and technology. Research remains mixed related to the role of technology and spiritual formation as some see technology as a distraction (Cyzewski, 2020; Dovich, 2017; Smith & McMullen, 2020) to discipleship while others view technology as a tool for discipleship (Maddix, et al., 2012; Lowe & Lowe, 2018). These questions were intended to help me understand each participant's comfort with technology use as well as his or her personal convictions related to spiritual formation.

Questions seven through fourteen helped identify each participant's personal experience with spiritual formation practices through the online learning environment. As online academic programs advance, the Christian college's mission to provide holistic discipleship to student remains. Seminaries, as settings of ministerial formation, have been able to faithfully foster Christian discipleship through their online academic offerings (Etzell, 2015) as well as online undergraduate institutions outside of the United States (Lam, 2020 ; Ledbetter, 2017). These questions were intended to help me understand each participant's experience with spiritual formation from a distance as well as identify any best practices by the College.

Individual Interview Data Analysis Plan *(Data Analysis Plan #1)*

I manually transcribed and coded data from interviews to ensure confidentiality and accuracy. This textual form allowed for the categorical aggregation process (Creswell & Poth, 2018; Patton, 2015; Stake, 1995). The notes were member-checked after the interviews in order to ensure the true meaning was captured during these sessions (Creswell & Poth, 2018; Patton,

2015). In the present study, data analysis was piloted through two key strategies: coding and holistic analysis. Coding provides a fundamental heuristic lens through which data analysis occurs (Saldana, 2011). Given the subjective nature of spiritual formation and the unique nature of online education, existing quantitative measurements do not fit the present study (Fetzer Institute, 2003; Hall & Edwards, 2002; Thayer, 2004; Wiens, 2014). First, transcripts from participant interviews and field notes from document analysis as well as journals were used to identify codes and themes (Madison, 2011). Using inductive, open-coding within data analysis, emerging themes or patterns from the collected data were identified, while maintaining low bias levels (LeCompte & Preissle, 1993). Specifically, as this case study surveys the perceptions and personal experiences of online undergraduate students, values coding was employed in order to underscore the particular attitudes, beliefs, and values of the participants (Saldana, 2011). Hierarchical framing was employed in order to highlight data related to key themes within the study (Stake, 1995; Yin, 2018). The emerging themes and categories were arranged in order to answer the central research question (Merriam, 2009). Second, holistic analysis was employed as a means of data analysis. Collected data was viewed and shared as emerging themes and patterns relate to the whole. By describing each case and looking for common themes and patterns which transcend the cases, interpretation and meaning from the research was acquired (Yin, 2018).

Document Analysis (Data Collection Approach #2)

Documents may be categorized into three types of analysis: personal (i.e., personal websites, e-mails), official documents (i.e., handbooks, reports), and popular culture documents (i.e., magazines)(Bogdan & Biklen, 2007). In the present study, I asked each participant to provide three types of official documents of their Christian college for analysis (Appendix G). These are: each college's academic catalog, a sample course description for an online

undergraduate course taken at the college by the participant, and a sample course syllabus for an online undergraduate course taken at the college by the participant. In the event a participant did not provide these documents, I accessed these documents through the participating college's website and online course catalog. Each college's academic catalog was studied to observe institutional policies and procedures related to the integration of faith and learning as well as technology use. A sample course description for online undergraduate courses at each college was studied to observe departmental policies related to the integration of faith and learning as well as technology use. A sample course syllabus was studied to observe instructional, classroom policies and procedures related to the integration of faith and learning as well as technology use. In addition to the official college documents provided by the participants, strategic plans and mission statements provided by each college on their website were found by the researcher and analyzed. These documents contributed to a greater understanding of the experiential environment developed for online students by the college related to spiritual formation from a distance. Further, these documents helped assess key principles and best practices within Christian colleges related to the integration of faith within the online learning environment.

Document Analysis Data Analysis Plan *(Data Analysis Plan #2)*

Similar to the data analysis plan for interviews, data analysis for document analysis was piloted through two key strategies: coding and holistic analysis. Coding provides a fundamental heuristic lens through which data analysis occurs (Saldana, 2011). Given the subjective nature of spiritual formation and the unique nature of online education, existing quantitative measurements do not fit the present study (Fetzer Institute, 2003; Hall & Edwards, 2002; Thayer, 2004; Wiens, 2014). First, transcripts were compiled of each document analyzed in order to identify codes and

themes (Madison, 2011). Using inductive, open-coding within data analysis, emerging themes or patterns from the collected data will be identified, while maintaining low bias levels (LeCompte & Preissle, 1993). Hierarchical framing was employed in order to highlight data related to spiritual formation and technology, in particular (Stake, 1995; Yin, 2018). The emerging themes and categories were arranged in order to answer the central research question (Merriam, 2009). Second, holistic analysis was employed as a means of data analysis. Collected data was viewed and shared as emerging themes and patterns relate to the whole. By describing each case and looking for common themes and patterns which transcend the cases, interpretation and meaning from the research was acquired (Yin, 2018).

Journals (Data Collection Approach #3)

Journaling allows for participant reflection by describing a recent experience and unpacking salient aspects of the experience, such as people, words or activities within the experience (Lutz & Paretti, 2019). Within academic studies, journals have been used to promote reflection and deeper learning among participants (Boud, 2001; Bruno & Dell'Aversana, 2018; O'Reilly & Milner, 2020). Journals within qualitative research are used to supplement data that has been collected by other methods (Gall, et al., 2007). Within the present study, journaling allowed another venue for the participants' voices to be heard, especially as online Chapel services are the primary means of corporate spiritual formation for students at many Christian colleges in the United States (Council for Christian Colleges & Universities, 2017). Participants' experiences of one Chapel service were recorded through the completion of journal prompts (Appendix G). To ensure clarity and validity, the journal prompts within the present study were be examined by two college professors and a pilot journaling exercise was completed by a

college student not participating in the current study. The following journal prompts were

answered by participants (Appendix G):

Individual Journal Prompts

1. How is spiritual formation modeled in this Chapel service?

2. How is spiritual formation encouraged through this Chapel service?

3. How is participation in Chapel monitored by the school?

4. In what manner are Chapel personnel engaging online students in the Chapel

   experience?

5. If you do not attend Chapel, why not? Do you attend a corporate worship

   gathering? If so, where and how often?

Journals Data Analysis Plan *(Data Analysis Plan #3)*

Data from journals were manually coded to ensure for confidentiality and accuracy. The

notes were member-checked to ensure the true meaning was captured (Creswell & Poth, 2018;

Patton, 2015). Similar to the data analysis plan for interviews and documents, data analysis for

journals were piloted through two key strategies: coding and holistic analysis. Coding provides a

fundamental heuristic lens through which data analysis occurs (Saldana, 2011). Given the

subjective nature of spiritual formation and the unique nature of online education, existing

quantitative measurements do not fit the present study (Fetzer Institute, 2003; Hall & Edwards,

2002; Thayer, 2004; Wiens, 2014). First, transcripts were compiled of each journal entry

provided by a participant and analyzed in order to identify codes and themes (Madison, 2011).

Using inductive, open-coding within data analysis, emerging themes or patterns from the

collected data were identified, while maintaining low bias levels (LeCompte & Preissle, 1993).

Hierarchical framing was employed in order to highlight data related to spiritual formation and

technology, in particular (Stake, 1995; Yin, 2018). The emerging themes and categories were arranged in order to answer the central research question (Merriam, 2009). Second, holistic analysis was employed as a means of data analysis. Collected data was viewed and shared as emerging themes and patterns relate to the whole. By describing each case and looking for common themes and patterns which transcend the cases, interpretation and meaning from the research was acquired (Yin, 2018).

Data Synthesis

After compiling data analysis from each set of data collected, a synthesis of data was completed in order to articulate a coherent, singular body of evidence that identifies common themes and patterns across the data collection points. This data synthesis comprised of a manual transcription and coding of data through Microsoft Word and Microsoft Excel computer software. Recurring themes and patterns across were highlighted and color coded by the researcher. The data synthesis offered answers to the research questions presented by the current study.

<div align="center">

Trustworthiness

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The process of qualitative research, including data collection and analysis is an inherently subjective process (Patton, 2015). Trustworthiness within qualitative research should "demonstrate that the methods used are reproducible and consistent, that the approach and procedures used were appropriate for the context and can be documented, and that external evidence can be used to test conclusions" (Ary et al., 2013, p. 509). Trustworthiness within qualitative research is essential and addresses credibility, dependability, transferability, and confirmability. In the present study, trustworthiness was underscored through a data triangulation method.

Credibility

Credibility serves as the first factor of trustworthiness within qualitative research. Credibility refers to the correspondence between the study's participants' perspectives and how those perspectives are represented by the researcher within the study (Patton, 2015). Within the present study, several procedures for promoting credibility were maintained. These include: prolonged engagement, data triangulation, and member checking. First, by engaging in prolonged engagement, I became immersed in the research setting in order to better identify and represent relevant thematic dynamics discovered over the course of the study (Yin, 2018). Second, the researcher engaged in data triangulation and "make use of multiple and different sources, methods, investigators, and theories to provide corroborating evidence of validating the accuracy of the study" (Creswell & Poth, 2018, p. 328). Through the collection and analysis of multiple data sources, a range of perspectives from participants were examined and added validity to the present study (Creswell & Creswell, 2018). Third, member checking added credibility to the present study (Creswell & Poth, 2018; Goldblatt et al., 2011). I verified interview transcripts and journal responses with participants as well as allowed participants to examine the analysis of the study. This process enhanced the credibility of the study by allowing participants to judge the accuracy of the accounts recorded.

Transferability

An additional factor related to research trustworthiness is transferability. Transferability refers to the degree to which research findings might transfer and be applicable within other settings and contexts (Shenton, 2004). In order to promote transferability within the present study, I engaged in an audit trail. This process allowed the researcher to document and retrace the process as well as articulate the patterns through which the researcher developed analysis and

conclusions (Creswell & Poth, 2018). This audit trail provided a pathway of transferability for future research. Additionally, through a multiple case study design, in particular, I was able to focus on the how and why of the occurrence of research outcomes as well as develop rich descriptions of the occurrences for literal replications from case to case (Yin, 2018). Within the proposed study, a multiple, collective case study approach allowed for direct replication, more compelling and robust evidence, and thick, rich descriptions (Newby, 2014; Yin, 2018). The results of this research can enable Christian, liberal arts institutions to strategize on how to implement theologically-grounded, technologically- innovative models of spiritual formation within online educational environments based upon the experiences of current students.

Dependability

An added factor associated with research trustworthiness is dependability. Dependability refers to the presentation of research findings which are consistent and could be repeated (Lincoln & Guba, 1982). This can be demonstrated through an effective description of the procedures undertaken for the study. Within qualitative studies, dependability addresses the study's consistency (Korstjens & Moser, 2018; Lincoln & Guba, 1982). Shenton (2004) advised the researcher to employ "steps….to help ensure as far as possible that the work's findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher" (p. 72).

Confirmability

The final factor related to research trustworthiness is confirmability. Confirmability refers to a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest (Lincoln & Guba, 1982). Within the present study, I engaged in reflexivity in order to promote dependability and confirmability.

Reflexivity allows for a consciousness of personal biases, values, and experiences brought into the study as well as promote self-understanding and self-awareness as it relates to the present study (Creswell & Poth, 2018, p. 327). Interview and journal prompts were reviewed by my dissertation committee and Liberty University's IRB committee as well as the IRB committee of each participating college.

Ethical Considerations

Ethical considerations are essential within each phase of the research process (Creswell & Poth, 2018). Prior to beginning the present study, permission was acquired from the Institutional Review at each research site as well as through the Institutional Review Board of Liberty University. As the study begins, I disclosed the purpose of the study to all involved parties and require participants to complete consent forms (Creswell & Creswell, 2018; Yin, 2018). During the course of research and data collection, I showed respect toward the research site and each participant. Informed consent and pseudonyms were utilized to respect the privacy of all participants. Data was stored for stored using appropriate security measures, such as password protection on all electronic files, including audio and transcription files from data collection. For maximum security protection, the password-protected electronic files were stored on an external storage device. Following guidelines from the American Psychological Association (2019), data will be securely stored for five years and removed using a commercial software application. As data is analyzed and prepared, I reported honestly and describe multiple perspectives present within the study, including both positive and negative results acquired through the study as well as provide these results to all stakeholders (Creswell & Poth, 2018).

Summary

Chapter Three provided an overview of this qualitative case study focused on the phenomenon of spiritual formation from online learning environments as it is observed through the experiences of online undergraduate students. The central research question of this study inquires: How do online undergraduate students describe their experiences of spiritual formation while engaged in online studies? Participants within this study will include undergraduate students who are professing Christians engaged in online courses within Christian colleges in the United States. The shared experiences of the participants provide a collective voice within the present study (Patton, 2015). Data was collected through semi-structured interviews, participant journals, and document analysis. Collected data was analyzed individually and collectively through open coding, values coding, thematic synthesis, and categorical aggregation against the research questions in order to find patterns and trends. The collected data helped uncover key principles and best practices related to the spiritual formation of online undergraduate students. Trustworthiness within the present study was established through credibility, dependability and confirmability, and transferability. Finally, several ethical considerations were rendered within the study in order for the researcher-participant relationship to remain professional and the participants protected. Through this case study, these participants described how online undergraduate students experience spiritual formation through an online learning environment.

CHAPTER FOUR: FINDINGS
Overview

The purpose of this multiple case study was to describe how online undergraduate students experienced spiritual formation through online learning at a Christian college. Baxter and Jack (2008) found that a qualitative case study approach supports a researcher's study of complex phenomena within their particular contexts. As such, this approach was used in the present study to capture the voice of participants as they shared their experiences with spiritual formation within their specific educational environments. In this chapter, I will present the findings from the interviews, journal prompts, and documents shared by participants.

Participants

The participants in the present study included 12 undergraduate students enrolled in an online academic program at one of the three participating Christian colleges. Within this multiple case study, each participant was viewed as a bounded case for data collection and analysis. All participants were professing Christians between the ages of 18 and 57 and enrolled for at least one semester at their current school. The themes presented in this chapter derived from a review of transcripts from interviews with each participant, journal prompts completed by each participant, as well as document analysis from course documents (such as course syllabi) shared by each participant. Table 1 displays a demographic summary of the participants. This table contains each participant's pseudonym, age, school classification, declared major of study, and their stated use of technology for personal spiritual formation practice.

Table 1

Participants

Participant	Age	Classification	Declared Major	Use of Technology for Personal Spiritual Formation
Knox	18	Freshman	Business	Yes
Cristina	35	Junior	Education	Yes
Logan	41	Junior	Social Work	Yes
Megan	47	Junior	Education	Yes
Faith	18	Freshman	Business	Yes
Katie	55	Senior	Education	Yes
Jeanette	57	Junior	Education	Yes
Anna	28	Junior	Interdisciplinary Studies	No
Caleb	40	Senior	Biblical Studies	Yes
Adele	34	Junior	Psychology	Yes
Lawson	46	Junior	Psychology	Yes
Shannon	47	Freshman	Management	Yes

Knox

Knox was one of the youngest members in the present study. He is an 18-year-old freshman from Maryland at Christian College A. He is single with no children. Knox is a business major who defined spiritual formation as one's "spiritual life" which is influenced by "family and friends as well as where you are, such as college or church." He engaged in personal spiritual formation through daily Bible reading and prayer. He used a Bible application for his daily Bible reading, which includes a devotional. Knox is active in his local church and grew up the son of a Protestant minister.

Cristina

Cristina is another student at Christian College A. She is a 35-year-old junior, majoring in education. She is single with no children and currently lives in South Carolina. Cristina found spiritual formation to involve "building one's spiritual foundation" and to involve particular "habits, desires, and outcomes" associated with one's faith. Cristina's personal spiritual formation practices involved reading the Bible daily and going to church each week. She used an application to read her Bible each day and for study and teaching tools, but teaches using a physical copy of Scripture. Cristina is active in her local church and teaches frequently in her church's children's ministry.

Logan

Logan is a 41-year-old social work major at Christian College A. She is a junior who lives in Virginia. She is married with two school age children. In her definition of spiritual formation, Logan included how spiritual formation includes "learning and growing closer to the Lord." In addition to being active in her local church by attending three times each week, Logan was the only participant in the present study who discussed attending her school's weekly chapel service online. Logan's personal spiritual formation practices included reading her Bible daily and attending her church. She used a Bible reading application for daily devotions and to read her Bible, especially given her mobile lifestyle.

Megan

Megan is a 47-year-old junior at Christian College A who lives in Virginia. Her major is education. She is married with three school age children. She is active in her local church, attending services weekly as well as a women's Bible study group. Megan defined spiritual formation as "a person's knowledge and understanding of their spiritual growth as they go

through the process of sanctification." Her personal spiritual formation practices involved a personal accountability group through her church's women's ministry, daily Bible study, and weekly church attendance. Megan used a Bible application on her phone each day to read the Bible.

Faith

Faith is an 18-year-old freshman at Christian College A who lives in Maryland. She is majoring in Business. She is single with no children. She described growing up in "a strong household of faith" with many memories of attending weekly church services, special activities, and summer camps. Faith continues to be active in her local church, attending services weekly, and volunteering in a variety of ministries within her church. Faith found spiritual formation to entail "a person's personal growth toward becoming more like Jesus." Her own personal spiritual formation practices involved daily Bible reading, prayer, and attending classes and services at her church. She used a Bible application for daily devotions and often watches (and even re-watches) sermons from her church on YouTube. She also watched various preachers on YouTube and listened to Christian podcasts during her daily workouts.

Katie

Katie is a 55-year-old senior at Christian College B majoring in education. She lives in Texas. She is married with one adult child and one grandchild. Katie defined spiritual formation as "taking what you grew up on and continuing the process throughout adulthood…You strengthen your spirituality by becoming more involved in the church and its activities." She attended a private, Christian high school and is active in her local church, particularly serving with a variety of charity ministries associated with her church. Sometimes, she used technology

to watch her church's weekly services as well as to engage in her church's private Facebook group where prayer requests and devotionals are posted periodically.

Jeanette

Jeanette is a 57-year-old education major at Christian College B in her junior year of studies. She is single with no children and has never married. She lives in Texas and is looking to advance her career in education through her online undergraduate studies. Jeanette found spiritual formation involved "the growth and development of [one's] personal relationship with Christ." Jeanette is active in her local church and in personal spiritual formation practices which included, "my discipleship group, Sunday School, worship services, reading my Bible, and being careful what content I allow into my life." Jeanette used a Bible application for her daily Bible reading as well as the Internet to search for answers to questions she may have as she read the Bible.

Anna

Anna is a 28-year-old in her junior year of interdisciplinary studies at Christian College B. She lives in Texas. She is married with no children. Anna recalled a strong childhood of faith. Her father was a Protestant minister. The impactful image of her father studying the Bible early each morning and journaling his notes of study served as a motivating factor within her own spiritual formation practice. As a late teenager, she recalled having a pivotal moment in her faith journey and one that allowed her to own her own spiritual journey. Anna remains faithful in her local church, serving in the music ministry of her church as well as in the preschool ministry. She defined spiritual formation as "[one's] relationship with God." Habits such as prayer, Bible reading, and attending church services were identified as vital to Anna's personal spiritual formation. Anna was the only participant who does not use technology in her personal spiritual

formation practices. She found technology "to be a distraction from her time devoted to the Lord and to His Word."

Caleb

Caleb is a 40-year-old Biblical Studies major at Christian College B in his senior year of studies. He lives in Texas alongside his wife and four school age children. He found spiritual formation to revolve around an individual's personal character as spiritual formation shapes "the inner life and soul of an individual in accordance with God's right character and His holy Word." Caleb's personal spiritual formation practices included daily Bible reading, journaling, and solitude. As a youth minister at his local church, Caleb frequently used his Bible application and computer software to assist his study of Scripture. Additionally, he listened to a variety of podcasts hosted by several different preachers and Bible teachers. He also watched online Bible courses through different Christian universities, outside of Christian College B, which provide "a more balanced approach" to his understanding of and teaching of the Bible.

Adele

Adele is a 34-year-old living in Arkansas. She is in her junior year of studies as a psychology major at Christian College C. Adele is engaged and has no children. She comes from "a strong family of faith" with deep roots in Protestant churches across the southern states of the United States. She defined spiritual formation as one's "path of growth toward Christlikeness" through a variety of "personal habits and choices." Personal involvement in the life of her local church along with daily Bible reading and devotions were shared as key personal spiritual formation practices for Adele. She used a Bible reading application for reading the Bible, daily devotions, and for Scripture memorization. In fact, she recalled setting her Bible application to notify her with a Bible verse at a set time each day.

Lawson

Lawson is a 46-year-old junior psychology major at Christian College C who lives in Pennsylvania. He was a church musician for several years before beginning his studies to enter a new profession. Lawson is married with three teenage children. He became a Christian at an early age and his faith remains a key aspect of his daily life. He found spiritual formation to involve "learning to place Christ first in all aspects of life." For personal spiritual formation, Lawson engaged in daily devotional time as well as a weekly group Bible study. He used a Bible application to read the Bible each day as well as to watch his church's online services. Occasionally, he reported listening to Christian podcasts which are recommended to him by friends.

Shannon

Shannon is a 47-year-old freshman management major at Christian College C who lives in Virginia. She is married with two teenage children. She shared her hopes that this new degree will allow her to advance away from her current academic career as a teacher. Shannon grew up with divorced parents, but recalls how both of her parents prioritized church attendance each week. Her mom served as their church's preschool director and she grew up helping her mom in the preschool ministry. Shannon defined spiritual formation as one's "reflection of Jesus Christ." Personal practices such as daily Bible reading and church attendance helped Shannon develop her own spiritual formation. She recalled how she used a Bible application to read her Bible each day and to take notes during sermons at church. She also shared how she watched her church's online services when she is not able to attend weekly services in person.

Results

The present study followed a multiple case study design. This particular design was

selected in order to develop a synthesis across the 12 cases represented within the current study.

This qualitative research methodology was utilized in order to better understand the phenomenon

(spiritual formation of online undergraduate students) within their natural settings and to view

the phenomenon through the unique perspectives of the participants within this study (Creswell

& Poth, 2018; Patton, 2015). In addition to participant interviews and journal prompts,

participants provided course syllabi and a link to their school's website in order to help me view

the policies and practices of the three research sites involved with the present study as it relates

to spiritual formation and the integration of faith and learning. The following section presents

theme development from data codes (Table 2), including descriptions and excerpts from the data

following categorical aggregation (Table 3).

Table 2
Codes

Personal Spiritual Formation Practices	Role of School in Spiritual Formation	Unexpected Code
Bible Reading 12	Instructor Modeled 9	Attend Online Chapel 1
Prayer 11	Classmates 3	
Listen/Watch Podcasts or YouTube 8	Teaching/Curriculum 8	
Attend Small Group 9	Class Discussions/Posts 14	
Attend Church Services In Person 12	Course Assignments 17	
Watch Church Services Online 6		
Family Devotions 4		
Social Media 3		

Internet Study Tools 4		
Journaling 2		
Community Service 4		
Sabbath 2		

Number represents the frequency of the code in data collection.

Table 3

Themes

Personal Spiritual Formation Practices	Role of School in Spiritual Formation	Unexpected
Bible Reading	Instructor Modeled	Attend Online Chapel
Prayer	Class Discussions/Posts	
Listen/Watch Podcasts or YouTube	Course Assignments	
Attend In-Person Church Services/Small Group		

Personal Spiritual Formation Practices

Identifying the personal spiritual formation practices of each participant was key to

understanding the experience of spiritual formation of online undergraduate students.

Participants were asked to provide their own personal definition of spiritual formation.

Additionally, each participant was asked as to describe the practices, or spiritual disciplines, he

or she personally participates in on a regular basis. Through data analysis, five personal spiritual

formation practices were identified in over half of the responses: Bible reading, prayer, listening

to podcasts or watching YouTube, attending an in-person small group, and attending in-person

church services.

Bible Reading

All participants discussed Bible reading as one of the personal spiritual formation practices they employed on a consistent basis. Knox found Bible reading to bring "consistency and confidence" into his life as his evening Bible reading formed a landmark habit within his evening routine. Adele discussed how Bible reading was part of her childhood faith and home and by engaging in this practice in the present day she felt connected to a part of her past. In order to love and live the great story of Scripture, one must learn the story of Scripture (Wilkin, 2019). The personal practice of Bible reading allowed readers to engage in the story of Scripture, but also to find their place within the greater story of the Bible (English, 2020; Vanhoozer, 2018).

Related to technology, 11 participants discussed using a Bible application for their personal Bible reading either on their phone or other mobile device. Only one participant, Anna, discussed how she did not use technology for personal Bible reading and did so "in reverence to the Word, but also to help me not be distracted. It would be too easy for me to click over to [social media] rather than remain focused on what I am reading [in the Bible]." Through consistent Bible reading, participants were encouraged and empowered in their own life's journey and spiritual formation.

Prayer

Eleven of the participants discussed prayer as a consistent personal spiritual formation practice within their life. Prayer builds an awareness of God's character, a sensitivity to God's movement, and a commemoration of God's grace (Willard & Simpson, 2020). Cristina remarked, "I pray every day and multiple times a day! As a mom with a full-time job and school to deal with, I need the reminder that God's with me!" Megan also shared how prayer helped her

"growth and development of a personal relationship with Christ." Jeanette remarked how prayer was a central activity within her family's spiritual formation practice. Jeanette's family prayed together to begin and end each day; they also prayed together at meal times.

Related to technology, Katie was the only participant who discussed using technology with prayer. Her church had a private Facebook group where prayer prompts and prayer requests are posted. Katie used these posts to structure her own prayer life as well as to feel a sense of connection with her church family through the online medium. Katie shared how the online Facebook group helped stay connected with her church family, especially during times when she was unable to participate in church services in-person. Prayer allowed many participants to feel encouraged and connected to God.

Listen to Podcasts or Watch YouTube Videos

Eight participants shared how they used technology in their spiritual formation practices, specifically as they listened to podcasts or watched YouTube videos. These podcasts or YouTube videos were of Bible teachers or of church services. Faith shared how she listened to a specific podcast which paired with her daily Bible reading as she worked out each morning. She also watched church services and various preachers on YouTube. She claimed the accessibility and convenience of watching church services through this technological medium allowed her to be better engaged in her own spiritual formation practices. Likewise, Caleb listened to podcasts and watched YouTube videos of different Bible teachers in order to develop his spiritual formation as well as to "develop [his own] voice in teaching." Caleb shared the benefit of listening to a variety of perspectives as it relates to the study of the Bible. He remarked how this spiritual formation practice enhanced his own spiritual formation as well as enriched his ministry and teaching of Scripture to others. Similarly, Lawson shared how he listened to podcasts of Bible

teaching during his daily commute. He jokingly shared how doing so "beats the alternative of listening to [inner city] traffic noises." These participants all shared the convenience technology provides for personal discipleship and spiritual growth.

Attend In-Person Small Group

Nine participants discussed their active participation with an in-person small group. All small groups are affiliated with the participants' local churches. Faith discussed the differences between traditional and online students as being a "struggle to form connection" as an online student. To that end, Faith remained active in her local church and small group as she felt this group provided "a family…a connection to provide support and encouragement." Katie remarked how her small group provided "a place to belong" as well as "a place to study the Bible with a group of ladies who are just like me." Shannon articulated how her small group even gathered outside of their weekly meeting time for meals and other outings. These events helped Shannon feel "connected" and "a reminder that I am not alone in this life or on this journey." Adele's small group memorized Scripture together and often encouraged each other in their own spiritual formation practices. Megan defined her small group as "an accountability group" which met together and encouraged each other toward Christlikeness, spiritual growth, and further discipleship. Active participation in a small group allowed several participants to feel connection, despite being an online undergraduate student.

Attend In-Person Church Services

All participants stated they attended in-person church services regularly. Ten participants recalled attending church services weekly. The remaining participants remembered attending church services more than once a week, up to three times each week. Seven participants shared how they benefited from their pastor's sermons each week. They used words such as

"encouraging", "Bible-based", "convicting", and "uplifting" to describe the experience of attending their pastor's sermon. In addition to the weekly sermon, five participants discussed their local church's music as an integral part of the in-person church service. Katie shared how her church's music ministry provided a weekly playlist of Sunday's songs on a mobile application in order to allow church members to participate in worship through song beyond the Sunday morning experience. Seven participants discussed participating in some type of community service through the ministries of their local church. For example, Shannon served in her local church's preschool ministry each week. She shared how she found community among the volunteers she serves alongside. Additionally, Shannon's church hosted a weekday preschool program for the community. Shannon enjoyed serving at special events hosted by the church's weekday preschool and found the preschool to be an important ministry to the community as well as an essential connection point to the people and activity of her church. Both Adele and Knox remarked how attending in-person church services reminded them of their own childhood and youth attending church. Through their weekly attendance at church today, they were able to connect to a part of their own past faith journey. Further, they are setting a similar example for the next generation within their own families. In-person church services provided a unique avenue for community and service, which are important aspects of spiritual formation and overall Christian growth for online undergraduate students.

Role of School in Spiritual Formation

Christian colleges and universities, as advocates of holistic Christian education, employ a unique position within the intersection of technology, theology, and pedagogy. As Logan argued, "I expect [my Christian University] to point [students] to Christ and to consistently teach through a Christian perspective across all disciplines." Through data analysis, three school experiences

related to spiritual formation were identified in over half of the responses: the model of the instructor, course curriculum and teaching, and class discussions and posts within the learning management software.

The Model of the Instructor

An essential element in a Christian university's task of holistic Christian higher education is the person and work of the instructor. Van Brummelen (2009) exhorted the Christian educator to "live in such a way that you put to the lie the idea that religious belief makes no difference in your public life. And, by God's grace, do so in confidence and joy, remaining faithful to the God who created you, sustains you, and calls you into loving service (p. 265)." He argued teaching, in particular, has four interrelated aspects: guiding, structuring, unfolding, and enabling (Van Brummelen, 2009, p. 61). All participants in the present study described three key thematic model practices of the instructor which underscored the role of the school in the spiritual formation of online undergraduate students (Table 3). These practices were analyzed from the data and aggregated into themes which include: the instructor's personal spiritual formation practice, individualized communication with students, and other correspondence within the learning management software.

Table 4

The Model of the Instructor

The Instructor's Personal Spiritual Formation Practices	The Instructor's Personalized Communication with Students	The Instructor's Other Correspondence within LMS
Posts Bible Verses in Emails/LMS 8	Emails 10	Discussion Posts 7
Prayer for Students 6	Phone Calls 4	Announcements 7

Number represents the frequency of the code in data collection

The Instructor's Personal Spiritual Formation Practices. Participants remarked how instructors modeled personal spiritual formation practices throughout interactions within the course. Eight participants shared how instructors within their online courses would periodically include Bible verses in their emails and throughout their announcements and interactions within the LMS. Faith observed that such practices served as an "encouragement…and as a guide" to her in her studies and spiritual formation. Faith found prayer is the primary means through which her university encouraged her own spiritual formation. Shannon shared how such practices helped frame the content of the course around "what is true from God's Word". Further, half of all participants within the current study shared how their instructors personally prayed for them. Anna shared how during a difficult personal time in a recent semester, her instructor reached out to her to assure Anna of her prayers and offered additional support. Knox recalled running into one of his professors "in real life" and how the instructor's greeting included "I pray for you every day." Half of the participants also shared how their school's LMS includes an area for prayer requests and instructors are often very active in these discussions. The personal spiritual formation practices of the instructor, including the recitation of Scripture and prayer, served as a strong model for online undergraduate students.

The Instructor's Personalized Communication with Students. In addition to instructor's modeling spiritual formation for students, participants articulated how their instructors also modeled spiritual formation through personalized communication with students. These intentional interactions helped participants feel connected to the online college community. Megan shared how her family "faced some difficulties one term and the professors personally called and prayed with me." Interactions, such as the one Megan described, go beyond a mass course announcement email or communication through LMS. Ten participants

recalled receiving a personalized email from an instructor which, as Shannon observed, "was encouraging…and helped me feel connected to the university in a way which is very hard as an online student." Caleb recalled a time when an instructor was near Caleb's church. The instructor asked Caleb if he would be available for coffee to meet up and talk. Similarly, Cristina and Adele recalled how one instructor used individualized mp4 recordings in grading certain course assignments; this tailored approach to course interaction was impactful for these students. Such communication showed an instructor's intentionality and modeled the intentionally of the Gospel message and the ministry of Jesus Christ. It closed the overwhelming gap often felt by these online students who are unable to tangibly connect with the university of their studies. The instructor's personalized communication with students served as a strong model for online undergraduate students in living the mission and mandates of Scripture in modern times.

The Instructor's Other Correspondence within LMS. In addition to the instructor's personalized communication with participants, participants also shared how instructors modeled spiritual formation throughout their discussion posts and announcements within the course's LMS. Over half of the present study's participants articulated ways their instructor encouraged or modeled spiritual formation through weekly announcements posted within the LMS. For instance, Jeanette, Knox, Cristina, and Lawson all spoke of how their instructor's weekly announcement included a devotional thought or prayer written out by the instructor. Katie shared how one of her instructor's included a devotional video recording each week of the course within the LMS. Katie spoke of how the added visual accentuated her sense of community as an online student. Additionally, over half of participants spoke of how their instructor's posts on discussion board forums help model spiritual formation practice. Shannon and Faith both shared how their instructors included a Christian worldview in all discussions within the LMS. For

instance, Shannon shared "[The instructor] included a Bible passage in his reply to each of our [discussion board] posts. His reply really made me think about how a Christian worldview would apply in the situation we were discussing. I appreciate that he did this…and his example… because…I never really thought about it like that." By modeling a biblical worldview in academic discussions within the LMS, instructors encouraged students to live out their faith in all ecosystems of modern life, including through online interactions within online undergraduate studies.

Course Curriculum and Teaching

While essential, the instructor is but a single component within the mission and activity of Christian higher education. Course curriculum and teaching help fashion the structure of a school's holistic approach to higher education and discipleship. All course documents analyzed for the present study spoke of a "Christian worldview," "biblical perspective," or "biblical worldview" which formed a lens through which course content would be observed and taught. Faith reported how her business classes wound biblical ethics into discussions of employment law and human relations. Similarly, Katie recalled how one course lecture included a discussion of the *Imago Dei* as it relates to early childhood education. She remembered, "In a [lecture video] for the course, [the instructor] was going over child development and then began reading Psalm 139. It just reminded me of God's design of each person…and each child."

Seven participants also articulated how the content of the course, including the teaching of the course, was essential to helping them develop their own spiritual formation and discipleship. Shannon found "all truth is God's truth wherever it is found and it is helpful to have those kinds of discussions during class… and [to see it modeled] in the teaching". Knox and Faith both shared how their business courses helped them think and act ethically and in

faithfulness to their biblical convictions. Further, several participants reported how course teaching challenged them to think critically about the intersection of their faith and their particular vocation. Katie remembered how the course discussion on the *Imago Dei* previously mentioned challenged her to look carefully at the students she taught. According to Katie, she "teaches students, not lessons." Her student-centric mindset was formed through a course's teaching which was grounded in a Christian worldview of mankind. Course curriculum and teaching were important factors in the role of the school within a student's spiritual formation.

Class Discussions and Posts

In addition to the course curriculum and teaching, class discussions and posts helped foster an online student's spiritual formation and highlight the role of the school in spiritual formation. All syllabi analyzed encouraged students to "include support from the Bible," "include a Christian worldview" or "write from a Biblical perspective" in class discussion board forums and posts. Eight participants recalled how these assignments forced them to critically think of course content through a Christian worldview and confidently articulate such views through these small assignments within the course. Four participants, however, recalled how discussion board posts in particular were not an enjoyable exercise; Knox referred to them as "busy work." Lawson, for example, commented how discussion board posts were not his favorite assignments, but they helped him "think about the Bible in ways I never did before." Similarly, these assignments helped Jeannette "connect Scripture to [course content] in…new ways." Given the dynamic nature of the online learning environment, the discussion board served as a means of class discussion and integration of faith and learning. Regardless of the felt redundancy of these assignments, participants felt pushed to view the Bible as well as course content in new ways.

Class discussions and posts served as a factor in a school's role in helping develop an online

student's spiritual formation and Christian worldview.

Outlier Data and Findings

The current study focused specifically on the experience of spiritual formation of online

undergraduate students and concentrated on the participants' experiences within the online

learning environment. Specific journal prompts were completed by each participant to share their

experiences with their school's Chapel services which are shared online by each research site.

Given the stated prevalence of Chapel across promotional items posted on the websites for each

research site and each service's accessibility to online students, the researcher did not anticipate

to find Chapel to not be a source of spiritual formation practice within the participants. The

following section describes the unexpected finding related to Chapel services.

Chapel

Of the 12 participants in the present study, only one participant actively engaged in their

school's Chapel service online. Participants argued Chapel services were "not convenient" to

watch. 10 participants justified their lack of participation in Chapel services online by citing their

jobs, family, or other responsibilities. Further, some participants found their local church

provided the corporate worship service they desire, and their attendance at their school's Chapel

service online would be "redundant." Two students felt disconnected from the Chapel service

online as their school's Chapel services featured residential faculty and staff and did not

acknowledge the presence of those watching online. Additionally, three older participants within

the current study observed Chapel services to be targeted toward more traditional, younger,

residential undergraduate student, rather than the older, more mobile, and more established

online undergraduate student. Chapel services, despite being promoted as a premiere corporate

worship experience for students at all three research sites, was not attended by the majority of the online undergraduate students who participated in the present study.

Research Question Responses

The data collected from interviews, journal prompts, and course documents gathered from the current study's participants attempted to answer four research questions which developed the structure and trajectory of the present study. These data collection methods were appropriate to use within a qualitative, multiple case study design as this study endeavored to hear the experiences of spiritual formation of 12 online undergraduate students at three participating Christian colleges.

Central Research Question

How do online undergraduate students describe their experiences of spiritual formation while engaged in online studies?

As professing Christians attending Christian universities, participants shared both their personal spiritual formation practices as well as the role of their particular school within their own experience of spiritual formation while engaged in online studies. Bible reading, prayer, and attendance at in-person church services and small groups, listening to podcasts or watching preachers on YouTube are key practices within the participants' personal spiritual formation and discipleship. Caleb shared how these personal practices provided "grounding" within his life and Anna joked that her family knew not to talk to her until she "enjoys her coffee and has time with Jesus each morning." Interestingly, Adele found her daily Bible reading to be a connection between her, her family, and her family's legacy. A majority of participants reported starting each day engaged in at least one personal spiritual formation practice. Faith, on the other hand, remarked how ending her day with Bible reading and prayer helped her sleep better as well as

better prepare for the next day. In a similar way, Knox used personal spiritual formation practices as landmark activities throughout his day, including in the evening to end his day. These personal spiritual practices served as key elements within an online student's experience of spiritual formation.

The role of the school was also described by the participants and were characterized by the model of the instructor, teaching and curriculum, and class discussions and posts. These course activities and interactions provided a model of spiritual formation, a sense of community, and an encouragement in the participant's spiritual growth. Shannon shared her difficulty adjusting to online student life and remarked how her virtual interactions with instructors and classmates eased her anxiety and helped her form connection. Similarly, Caleb shared how the intentional interactions he experienced shaped him both personally and professionally as a pastor. Through data collection and analysis, this study assisted with understanding the experience of spiritual formation of online undergraduate students.

Sub Question One

How do online undergraduate students describe their experience of spiritual formation in an online environment?

Specific to the online environment, several factors associated with the use of technology within the spiritual formation of online undergraduate students were discussed. Megan argued there is "no difference" between online students and traditional, in-person students related to spiritual formation. She observed, "For me, personally, there is no difference because I actively seek out the things or people who influence me". On the other hand, Faith found the experience of spiritual formation more difficult in the online environment. She observed, "It's harder for me to form connection and feel connected to others at my school, let alone share with them about my

own life and spirituality…It's easier to devote that time and energy with my small group and [local church]." For the majority of participants, like Faith, connection was found through weekly engagement with services and small groups through the local church.

Only one participant noted not using technology for Bible reading. She reasoned, "My phone is a distraction for me and if I use it [to read my Bible], I will only become distracted by [social media], so I just use by Bible." Technology was also utilized to broaden some participants' personal spiritual formation and study through the use of podcasts or watching preachers on YouTube. Three participants remarked how technology allowed for spiritual formation practice to be more accessible and available to them. Faith, for example, listened to podcasts during her daily workouts as a means of spiritual formation. Knox commented, "I use my commute time to listen to listen to the Bible as well as listen to [Christian teacher] podcasts." The majority of participants found technology to be an integral tool to their experience of spiritual formation, while it is unclear if this has any connection to their position as an online student.

Interestingly, participants favored attending in-person church services and small groups rather than engaging with their school's Chapel services online. This unexpected finding within data analysis found only one participant actively engages in her school's Chapel services online. Katie reasoned, for instance, that her personal small group provided a personal connection with others which Chapel services could not provide. Further, the role of the instructor and the activity of online courses served as key components of an online undergraduate's experience of spiritual formation within the online environment. Several participants recalled virtual, and even in-person, interactions with their course instructors which served as a means of spiritual formation. Through emails and correspondence within the LMS, participants shared how

instructors modeled and encouraged spiritual formation for online students. Caleb shared how his interactions with a course instructor modeled for him what it meant to have a "pastoral heart...and desire to help others grow to be like Jesus." Through data collection and analysis, this study assisted with understanding the experience of spiritual formation of online undergraduate students as involving a mix of interactions across technology as well as consistent in-person interactions.

Sub Question Two

How do online undergraduate students experience encouragement related to their spiritual formation?

Encouragement was an important aspect of an online student's experience of spiritual formation. Four participants found their personal spiritual formation practices brought some level of "encouragement" to their own spiritual formation. Logan found encouragement through her daily Bible reading and attending services at her church three times a week. Katie and Megan each shared how their own small group served as a vital encouragement to them. Katie, for instance, shared how encouraging it was for her to receive text messages of prayerful support from her small group as she prepared for exams or large course assignments. Adele and Anna drew encouragement from their families and viewed their academic work as helping better their personal family. Knox shared how his group of friends encouraged him in his own walk with the Lord. For online students involved in this study, encouragement related to spiritual formation came first through an in-person interaction or relationship.

Additionally, three-fourths of participants included the word "encouragement" in describing the model of their instructor as it relates to the role of the school in spiritual formation. Half of participants found their instructor's emails, phone calls, or other interactions

to be a source of encouragement. This encouragement went beyond the academic realm and influenced a student's spiritual formation as well. Faith found the interactions she experienced with her instructors served as both an "encouragement…and as a guide" to her in her academic studies and her own spiritual formation. This encouragement and guidance formed crucial support for online undergraduate students striving to live faithful to their biblical convictions in today's modern, technologically-advancing age. The virtual interactions described by participants, coupled with the in-person relationships served as a dynamic means of encouragement for online students. Through data collection and analysis, this study assisted with understanding the experience of spiritual formation of online undergraduate students as involving encouragement in both personal practices and through interactions with course instructors.

Sub Question Three

How do online undergraduate students' experiences of spiritual formation connect to the online educational environment?

The connection of the online educational environment and spiritual formation formed a unique intersection within the life and activity of online undergraduate students. As professing Christians attending Christian universities online, all participants argued spiritual formation as an essential element within their personal growth and development. For its part, data analysis of course documents provided by participants articulated a clear desire in each of the three participating research sites to integrate faith and learning, particularly through having students articulate and incorporate Scripture and a Christian worldview in course assignments and discussions. Each research site also made weekly Chapel services available to online students, but several participants argued that while available, these Chapel services were not easily

accessible to them, given their demanding personal, job, and familial responsibilities outside of their academic responsibilities. For example, Adele argued "Watching [Chapel] is not easy for me. They are only posted on the school's website and often feature speakers I do not know." Specifically, within the online educational environment, participants shared how the model of the instructor, course teaching and curriculum, as well as class discussions and posts within the LMS were key supporting elements to their own spiritual formation. Caleb shared how these elements within the online learning environment helped him "grow as a Christian, pastor, and student." Shannon observed how communication within the LMS "helped me feel connected to the university in a way which is very hard as an online student." Lawson agreed, "While it's hard to have conversations online, I like learning about my classmates in the discussion posts and the conversations we do have. I have even [connected] with some of them on [social media] in order to keep up with them." As students shared in the LMS and even on their own personal social media profiles, they experienced connection and fostered spiritual formation through the digital landscape.

Additionally, technology remained a key instrument of personal spiritual formation of participants. It is unclear if this is in any correlation to the participants' status as online undergraduate students or just a result of the current technological age of the present day. Regardless, for most online undergraduate students in the present study, technology formed the medium to engage in both academic studies and personal spiritual formation practice. Many participants reported using technology for spiritual formation practices – such as Bible reading, church attendance, and sharing prayer requests. Further, several participants shared how their virtual interactions with course instructors and classmates served as encouragement and motivation in their own spiritual and academic growth. This underscored the holistic nature of

Christian higher education and the role of Christian colleges and universities in supporting and encouraging Christian discipleship of students, even within the online educational environment. Through data collection and analysis, this study assisted with understanding the experience of spiritual formation of online undergraduate students as involving the use of technology as well as strategic interactions with instructors and intentional course assignments and dialogues within the LMS of each course.

Summary

The purpose of this chapter was to present the results and findings of the data analysis related to the experience of spiritual formation of 12 online undergraduate students at three Christian colleges within the United States. The study utilized open coding, thematic synthesis, and categorical aggregation and focused on the research questions outlined in Chapter One. This chapter shared the demographic profile of each participant, study results, emerging themes, and responses to each research question. After analysis of the collected data, nine themes developed and arranged into two environments of spiritual formation as observed within the literature: personal spiritual formation practices and the role of the school in spiritual formation. After completing categorical aggregation, the following nine themes were highlighted: (a) Bible reading, (b) prayer, (c) listen to podcasts or watch YouTube videos, (d) attend in-person small group, (e) attend in-person church services, (f) the model of the instructor, (g) course curriculum and teaching, (h) class discussions and posts, and (i) chapel. The research questions were answered representing how technology and the online educational environment connect to the experience of spiritual formation for online undergraduate students. Through the detail of this study's data collection and analysis, triangulation and replication of this study are empowered.

CHAPTER FIVE: CONCLUSION

Overview

Spiritual formation remains a central catalyst in personal discipleship and the mission of contemporary Christian higher education. The technological advancements of the modern era have accelerated the growth of online higher education and have further propelled the modern Christian college's expression of the Great Commission and the Great Commandment. The purpose of this multiple case study was to describe how online undergraduate students experience spiritual formation through online learning at a Christian college. As such, 12 participants shared their experiences of spiritual formation within the online learning environment. Following a discussion of this study's findings, this chapter will address six topics which are associated with the current study: (a) interpretation of findings, (b) implications for policy and practice, (c) theoretical and methodological implications, (d) limitations and delimitations, and (e) recommendations for future research.

Discussion

Previous research has centered on the experience of spiritual formation of online students within online graduate studies or within international contexts (Etzell, 2015; Lam, 2020; Ledbetter, 2017; Lewis, 2020). This study employed a qualitative methodological approach involving 12 online undergraduate students at three Christian colleges within the United States associated with the CCCU or ASCI. The data collection methods consisted of interviews, document analysis, and a journal prompt completed by each of the 12 participants. The data analysis procedures involved open coding, thematic synthesis, and categorical aggregation and focused on the research questions outlined in Chapter One. After completing categorical aggregation, the following nine themes were highlighted and further aggregated into two

categories: (1) relating to a student's personal spiritual formation practice and (2) relating to the role of the school in spiritual formation of students. The research questions were answered and highlighted the unique intersection of technology, theology, and pedagogy found within contemporary Christian colleges and their online learning environments.

Interpretation of Findings

Following data collection and analysis related to this study, nine themes emerged: (a) Bible reading, (b) prayer, (c) listen to podcasts or watch YouTube videos, (d) attend in-person small group, (e) attend in-person church services, (f) the model of the instructor, (g) course curriculum and teaching, (h) class discussions and posts, and (i) chapel. For purposes of discussion, as previously mentioned, these themes were further classified into two broad categorical groupings: (1) relating to a student's personal spiritual formation practice or (2) relating to the role of the school in spiritual formation of students. The following section will share a series of interpretations derived from these themes and characterizations.

Summary of Thematic Findings

This study's central research question inquired, "How do online undergraduate students describe their experiences of spiritual formation while engaged in online studies?". As previously addressed, nine themes emerged from the collected data sourced from interviews, analysis of course documents, and journal prompts completed by each of the 12 participants within the current study. For the purposes of discussion, these nine themes were broadly categorized into two comprehensive groupings: (1) relating to a student's personal spiritual formation practice or (2) relating to the role of the school in spiritual formation of students. The following section will discuss three emerging interpretations from this study's data collection

and analysis: the role of technology in spiritual formation, the role of the local church in spiritual formation, and the role of the school in spiritual formation.

Technology is a Tool of Spiritual Formation. Precedent literature reported technology as a beneficial tool for social interaction and learning accommodations within academic settings (Brown, 2018; Jamieson, 2020; Lederman, 2019; Orben, 2020). The findings of the present study highlighted technology was a tool of spiritual formation for online undergraduate students. All participants shared how daily Bible reading was an essential element of their personal spiritual formation practice. The vast majority of participants used technology for their personal reading of Scripture. Only one participant indicated she does not use technology for personal spiritual formation practice. Participants used mobile applications on their phones or tablets, such as the YouVersion Bible app or Dwell app. Participants found the accessibility and flexibility of using technology in their daily Bible reading allowed for a more personalized Bible reading experience through tailored Bible reading plans as well as audible plans provided by the various mobile applications used by each participant.

In addition to daily Bible reading, participants used technology to connect with their local church as well as a means to develop their faith online. Katie, for example, shared how she used a closed Facebook group to share personal prayer requests with others in her small group. Several participants shared how they watched their local church's weekly service online when they are not able to attend in person. Further, listening to Christian teaching through podcasts or YouTube videos also emerged as a means of personal spiritual formation practice within the present study. By connecting with others online, through prayer and teaching, participants were encouraged in their personal discipleship, developed community, and built their own understanding of Scripture and biblical values. As modern society advances in mobility,

technology serves as an agent of connection (Orben, 2020). Technology, also, serves as an avenue for spiritual formation (Ferguson, 2020; Lowe & Lowe, 2018). Online students within the present study found familiarity with technology and the online environment and the use of technology for personal spiritual formation practice seemed a natural extension, or tool, of their own ecological system of support and development. While many may argue that online students live in isolation and away from the activity of the college campus, participants shared their opposite experiences. No participant expressed feelings of isolation from their undergraduate experience and each participant shared ways technology enhanced both their academic development and personal discipleship.

The Local Church is Essential to Spiritual Formation. Lowe and Lowe (2018) conceptualized spiritual formation through an ecological framework of supporting and interconnected substructures, including family, church, and the online learning environment. These environments and social structures exist in an integrated intersection where holistic human development occurs, including spiritual formation as faith intersects each substructure within an individual's personal ecological system (Bronfenbrenner, 1999; Fearnley, 2020). All participants reported attending in-person church services weekly at their local churches. Nine participants also described their additional participation with an in-person small group affiliated with their local churches. English (2020) and McPherson (2018) maintained the local church serves as the principal agency of holistic discipleship and spiritual formation, enabling individuals to understand their place in God's Story today. Involvement in the local church endowed the opportunity for participants to embody discipleship and contextually develop strong subsystems of support, encouragement, and spiritual formation (Coates, 2021; Lam, 2020; Lowe & Lowe, 2018). Participants in the present study agreed and found the community within their church to

serve as an instrumental aspect of their own spiritual formation practices and an essential component in their own personal discipleship.

The School Encourages Spiritual Formation. All three Christian colleges within the present study reported livestreams of weekly chapel services to be an important avenue of discipleship for online undergraduate students in promotional items on each participating college's website. However, only one participant reported regularly watching these online services. On the other hand, participants stated expectations to be encouraged in their spiritual formation through course assignments and discussions.

Precedent literature pointed out the responsibility of online course instructors, in particular, in mediating their online teaching presence through both social and cognitive presence (Lee et al., 2021; Tartavulea et al., 2020). Nine participants articulated how the model of their course instructor impacted their own personal spiritual formation. From interviews with participants, three themes associated with the model of the instructor emerged: the instructor's personal spiritual formation practice, individualized communication with students, and other correspondence within the learning management software. These conversations with participants highlighted a disconnect between schools and online students as it relates to Chapel services, but also broadly underscored the unique and vital role of the course instructor within the online learning environment. Within each student's distinctive ecological system, the instructor served as a primary means of encouragement and interaction for the online student with the school (Lowe & Lowe, 2018). Course instructors provided a model for online students of what it means to live as faithful interpretations of biblical convictions as well as an embodiment of personal discipleship and spiritual formation (Smith et al., 2021; Vanhoozer, 2018).

Additionally, class discussion posts and assignments served a significant role in helping students process and articulate a biblical worldview within their specific academic and vocational context. Otto and Harrington (2016) maintained the holistic development of students is a coordinated commitment of Christian colleges. In the present study, the academic activity of online undergraduate studies intersected with each student's personal, familial, professional, and faith subsystems in order to provide personal formation, community, and learning. As it relates to spiritual formation, in particular, the model of the instructor, along with course assignments, served as the major means through which the school encouraged the participants' spiritual formation while engaged in online studies.

Implications for Policy and Practice

The review of precedent literature and experiences of participants within the current study supports the use of technology for personal spiritual formation practice, the essentiality of participation within the local church, and the need for strong interactions with course instructors and course assignments which foster personal discipleship and spiritual growth. Given the advancing trajectory of online education within the modern era, school policies and practices related to technology, theology, and spiritual formation of online undergraduate students should be evaluated and updated in order to maintain a vibrant environment for holistic Christian education and spiritual formation. The following sections articulate the implications for policy and practice associated with these ideals.

Implications for Policy

The mediation of the online course instructor's presence within the online learning environment served as a crucial element to the collaboration and community felt by online undergraduate students (Holtrop, 2021; Lee et al., 2021). Within the present study, participants

who reported positive interactions with instructors also reported an awareness of their instructor's availability for collaboration and communication. Through consistent communication through emails, various correspondence within the LMS, and posted virtual office hours, instructors communicated their availability to online students using a straightforward process for scheduling appointments. Participants shared how professors welcomed appointment scheduling through emails or through a shared scheduling software, such as Google Calendar or Calendly. Schools would benefit from providing policies and training to online instructors which communicated their essential role in the holistic education of online students and encouraged instructors to develop appropriate, personal support systems for online students utilizing support structures such as virtual office hours, consistent communication through emails or through the LMS, or another support structure deemed appropriate by the specific school's administration.

An additional policy implication presented by the current study involves the use of technology within the academic setting. While outside of the scope of this study, polices associated with the role of technology within traditional, in-person learning environments should be assessed. For online students, in particular, technology served as not only a tool of education, but also a means of education. As the environments of education blend together within the modern era, technology will continue to remain an instrument of education, and of spiritual formation. In order to remain relevant in the modern era, institutions need to make the necessary investments related to technology and technological training for their specific schools and contexts. This will require school policies which both welcome and help students faithfully steer the modern world utilizing technological tools. Several schools today have implemented policies which ban modern technological tools within their in-person learning environments instead of

properly training students on how to faithfully navigate the academic and professional arenas with these innovative tools. Such policies do not exist in online learning environments. As the intersection of online and traditional learning environments merges within the modern era, the expectation of technological use advances (Daniela et al., 2018). As both higher education and vocational contexts navigate the changes of the modern technological world, all undergraduate students require the academic and vocational skills necessary for success in the modern era. This includes technological knowledge and training (Redner et al., 2020). Schools must provide adequate training for instructors and students related to the various technological tools available today as well as sufficient guidance in navigating the academic world through the provided modern technological tools through both in-person and online learning environments.

Implications for Practice

In addition to the implications for policy addressed above, a variety of implications for practice can be derived from a review of precedent literature and through the data collected in the current study. Spiritual formation serves as a central goal of Christian higher education (Cox & Peck, 2018; Drovdahl & Keuss, 2020; Pazmino, 2008). Studies found the formative nature of digital technology, in particular, provided avenues for the cultivation of personal discipline as well as personal discipleship of students (Ferguson, 2020; Hunt, 2019). Given the divine, biblical mission of Christian colleges and universities, it may be prudent for schools to provide online undergraduate students specific tools for spiritual formation. These tools may vary based upon the specific context and characteristic of the particular school, but may include: (1) an online platform for online students where community and collaboration can occur, such as a closed Facebook group or other social media platform grouping, (2) links to Christian teaching on a variety of multimedia platforms, such as podcasts or YouTube, (3) a virtual office for online

students to receive spiritual direction, (4) specific spiritual formation resources curated through the school's online library, and (5) other teaching and spiritual formation available on demand for students, rather than through a specific, scheduled environment, such as the school's chapel service. Bass (2012) argued Knowles' (1980) adult learning theory specified the social context required for adult learning. Further, Beard (2017) found the transformative nature of Christian higher education, in particular, required a missional, yet experiential process of personal formation. This study's findings underscored the interrelated intersections of each participant's ecological subsystems and how the holistic development of online students yielded stronger ecological subsystems, including one's faith (Lowe & Lowe, 2018). The encouragement of personal spiritual formation practices by the modern school provides an important means of connection between the school and the online student.

Additionally, it may be prudent for schools to implement practices which help and foster online students toward community within a local church. Each participant articulated their various ecological systems of support including relationships with family, church, and school. These findings underscored the need for modern Christians to actively participate in God's grand story and in Christian community (Lowe & Lowe, 2018; Setra, 2020a). Depending upon their specific context, Christian colleges and universities may want to curate a list of churches available for online students. Christian schools within a specific denomination may want to sponsor events for online students at in-person denominational events or local churches within the denomination which allow online students to learn more about the community available to them through these local churches. Further, these schools may also desire to partner with these local churches in offering some in-person classes which help online students connect relationally in-person and further extend the reach of the specific college or university beyond the online

educational environment. Given the dominance of the local church as a means of Christian community, both in review of the literature and in the experiences of this study's participants, the practice of partnership between Christian colleges and local churches may prove beneficial to the spiritual formation of online undergraduate students.

Theoretical and Empirical Implications

The theoretical framework of the present study comprised of Bronfenbrenner's (1992, 1999) ecological systems theory associated with the ecology of human development and Lowe and Lowe's (2018) ecologies of faith model. Bronfenbrenner (1992, 1999) fostered a holistic view of human development and viewed maturation through a multi-dimensional construct of an individual's microsystem, mesosystem, exosystem, macrosystem, and chronosystem. This personal ecological system was comprised of various relationships and interactions which engaged in reciprocity and interconnectedness. For their part, Lowe and Lowe (2018) built upon Bronfenbrenner's (1992, 1999) theory and viewed a model of development which included faith and the online learning environment as subsystems within an individual's personal ecological system.

As addressed in Chapter Two, this theoretical framework provided the necessary interpretive lens through which to view the unique intersection of theology, technology, and pedagogy which encompasses online Christian higher education today. The experiences of the participants within the current study underscored the various subsystems of support within the modern student, as well as the various intersections between those subsystems, including technology and faith. The present study echoed the conclusions of these foundational theories and found how each substructure provides vital support to the online student, and in particular, to each online student's personal spiritual formation. The present study also expanded these extant

theories to observe experiences of spiritual formation within the specific context of online undergraduate education. Education, and spiritual formation, are both products and processes. The act of education and the act of spiritual formation rely on reciprocal layers of support. For participants within the current study, technology, in particular, serves as both a tool and agent of formation. Through the establishment of positive interactions within the online learning environment, online students felt empowered in both their academic goals and personal discipleship.

Christian higher education encompasses a holistic approach to the various subsystems and social, cognitive, and affective dimensions which comprise the contemporary online undergraduate student (Wallace, 2021). The empirical implications associated with this study are significant given the growth of modern online undergraduate education. The response of Christian higher education to the post-COVID pandemic have accelerated an embrace of digital technology within academic learning environments (Kolibu et al., 2021). As Christian colleges and universities embrace the technological innovations of the present day and offer online programs, these Christian schools also must employ the divine and biblical mission and vision given to them by providing holistic Christian education to the ends of the earth (Gonzalez, 2015; Otto & Harrington, 2016; Roy, 2020; Shepherd, 2020; Stoppa, 2017). The findings of the present study were consistent with a review of precedent literature addressed in Chapter Two. This study found personal practices such as Bible reading and participation within a local church as well as the model of the course instructor and challenge of course assignments and discussions were factors in the spiritual formation of online undergraduate students. The intersection of personal spiritual formation practice with other subsystems within each participant's ecological system allowed for worshipful expressions of academic activity, technology use, Christian community,

and personal discipleship (Beech, 2021; Estep & Kim, 2010; Lowe & Lowe, 2018; Willard, 2014).

The implication can be drawn that course instructors remain a crucial agent of the educational environment, especially online, and schools must continue to champion this role in the modern era. Additionally, technology remains both a tool and agent of formation for online students, and schools should be prudent in helping online students navigate the technological tools of the modern era in ways which are consistent with their biblical convictions and vocational calling. Institutional practices, such as Chapel services, are not ideal for modern online students, thus, Christian colleges and universities must become innovative in their policies and practices related to the cultivation of holistic Christian education and discipleship.

Limitations and Delimitations

The focus of this qualitative case study was to describe the experience of spiritual formation of online undergraduate students within three participating colleges with the United States and affiliated with the CCCU or ASCI. There are several limitations within the present study. First, the context of the present study served as a limitation. This content of this study is worthy of inclusion beyond the United States and even beyond the context of a Christian college or university. Second, another limitation of this study involves its particular methodology. The use of in-direct questioning through interviews and journal prompts with participants carries the risk of social desirability bias. As Fisher (1993) observed, this partiality exists when strong social norms surround a topic and participants disclose information the researcher wants to hear. Third, the timing of this study served as a limitation. At the time of data collection, modern society was continuing to navigate the COVID-19 global pandemic, and online undergraduate students were no exception. While the specific correlation of the pandemic to this study may be uncertain, its

possible limitations within this study must be stated. Finally, this study's focus on the personal experiences of the participants served as a limitation of the study. The probability is low, given the triangulation of data collected (including course documents), but the focus on the perceptions of online students may present inaccurate perspectives related to the experience of spiritual formation within the online learning environment. While these limitations exist, the careful data collection and analysis procedures employed in the present study ensure its viability and reliability.

In addition to limitations within the study, there was a specific delimitation inherit within the current study. The scope of this study was delimited to a particular population and context, namely Christian students engaged in online studies at a Christian college within the United States. This delimitation was selected by convenience because of the researcher's access to the schools, but also in order to provide contextually bound research sites where participants shared a similar background and experience, but also aligned with the particular research gap of this study and provided a means for generalization of data analysis and interpretation.

Recommendations for Future Research

The findings of this study yielded several recommendations for future research. First, this study focused on the experience of spiritual formation of online undergraduates enrolled in academic programs at a Christian college or university with the United States. One direction for future research is to repeat the present study with Christian students engaged in online students at public colleges or universities, researching how these students experience spiritual formation, outside of the Christian college perimeters, or outside of the United States. Second, another opportunity for further study involves repeating the present study in order to describe the experience of spiritual formation of online instructors. Given this study's findings related to the

role of the instructor within an online student's spiritual formation, an additional study focused

primarily on the instructor's spiritual formation would further underscore the theoretical

framework of the present study and help maintain Christian higher education as a viable and

sustainable cultivator of spiritual formation and discipleship for all stakeholders. Finally, an

additional recommendation for further research would involve a phenomenological approach to

the present study. As spiritual formation serves as a means of personal growth and development,

the longitudinal effects of spiritual formation of online undergraduates would prove an

interesting study, surveying the experience of spiritual formation of online undergraduate

students from matriculation to graduation. Future researchers would benefit from expanding the

contexts of the present study in order to further study the experience of spiritual formation of

online undergraduate students and further explore the particular intersection of technology,

theology, and pedagogy.

Conclusion

In conclusion, the purpose of this case study was to describe how online undergraduate

students experience spiritual formation at a Christian college. Precedent studies recorded the

theological and historical foundations of Christian higher education, the pedagogic and

technological innovations of the present age, and the evolving nature of the contemporary

undergraduate student (Gonzalez, 2015; Naidoo, 2019; Kinnaman & Matlock, 2019; Otto &

Harrington, 2016; Smith, 2020). This study employed a theoretical framework which observed

how education and spiritual formation, then, occurs through an interconnected network of an

individual's experiences and environments (Bronfenbrenner, 1992; Lowe & Lowe, 2018). The

central research question of this study was: How do online undergraduate students describe their

experiences of spiritual formation while engaged in online studies? Through collection and

analysis of participant interviews, course documents, and journal prompts, nine themes emerged: (a) Bible reading, (b) prayer, (c) listen to podcasts or watch YouTube videos, (d) attend in-person small group, (e) attend in-person church services, (f) the model of the instructor, (g) course curriculum and teaching, (h) class discussions and posts, and (i) chapel. These nine themes were further classified into two descriptors: relating to (1) the personal spiritual formation practices of the participant or (2) the role of the school in the student's spiritual formation. As such, Bible reading, local church participation, the model of the instructor, and course assignments and discussions, all emerged as dominant factors in the participants' experiences of spiritual formation while engaged in online studies. Technology, also, served as both an agent and tool of formation as online students used mobile applications for both academic studies and discipleship. This significance of this study was practical, theoretical, and empirical as it provided all stakeholders a better understanding of the experience of spiritual formation of students engaged in Christian higher education online. The implications derived from this study encourage Christian colleges and universities to provide adequate support structures for both students and instructors related to spiritual formation and technology. This study propelled research forward by addressing the research gap associated with the spiritual formation of online undergraduate students and the findings of this study were significant and will inform future research, policy, and practice, especially within Christian colleges and universities. Finally, recommendations for future research associated with this study include expanding the participant gap to include Christian students at public universities as well as instructors in order to gain a comprehensive description of the experience of spiritual formation within the online learning environment.

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Appendix A

IRB Approval Letter

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

February 9, 2022

Phillip Vincent
Dina Samora

Re: IRB Exemption - IRB-FY21-22-535 Ecology of Faith and Learning: A Case Study of the Experience of Spiritual Formation of Online Undergraduate Students

Dear Phillip Vincent, Dina Samora,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

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

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix B

Site Permission Request

[Insert Date]

[Recipient]
[Title]
[School]
[Address 1]
[Address 2]
[Address 3]

Dear [Recipient],

As a graduate student in the School of Education at Liberty University, I am conducting research to better understand the spiritual formation of online undergraduate students. The title of my research project is "Ecology of Faith and Learning: A Case Study of the Experience of Spiritual Formation of Online Undergraduate Students," and the purpose of my research is to describe how online undergraduate students experience spiritual formation at a Christian college.

I am writing to request your permission to advertise my study on your school social media pages. I have attached my social media recruitment document for your review. The research criteria for this study includes full time adult undergraduate students engaged in online studies with your school who are professing Christians.

Participants will be asked to contact me to schedule a virtual interview and be given a journal prompt to complete. They will also be asked to verify the accuracy of their recorded transcripts. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please respond by email to █████████████████.

Sincerely,

Phillip Vincent
Ph.D. Student

Appendix C

Recruitment Email

Dear [Recipient]:

As a graduate student in the School of Education at Liberty University, I am conducting research to better understand the spiritual formation of online undergraduate students. The title of my research project is "Ecology of Faith and Learning: A Case Study of the Experience of Spiritual Formation of Online Undergraduate Students," and the purpose of my research is to describe how online undergraduate students experience spiritual formation at a Christian college. I am writing to invite eligible participants to join my study.

Participants must be 18 years of age or older and have full-time enrollment as a student in an online undergraduate program within a participating Christian college. Participants must be professing Christians. Gender, age, marital status, and church denominational affiliation of the participants are not specified in this study. Participants, if willing, will be asked to participate in a one hour, recorded and transcribed virtual interview related to the participant's experience with spiritual formation. Participants will also participate in one reflective journal exercise after attending their school's Chapel service. Journal prompts will be provided, and you will be given one week to complete the journal, then email it back to me. Participants will also be asked to verify the accuracy of their recorded transcripts by email. Names and other identifying information will be requested as part of this study, but the information will remain confidential.

To participate, please contact me at ███████████████ for more information and to schedule an interview.

A consent document is attached to this email. The consent document contains additional information about my research. If you choose to participate, you will need to sign the consent document and return it to me electronically, by email, at ███████████████ prior to the interview.

Sincerely,

Phillip Vincent
Ph.D. Student
pvincent2@liberty.edu

Appendix D
Recruitment Social Media Post

ATTENTION FACEBOOK FRIENDS: I am conducting research as part of the requirements for a Ph.D. degree at Liberty University. The purpose of my research is to better understand the spiritual formation of online undergraduate students. To participate, you must be 18 years of age or older and have full-time enrollment as a student in an online undergraduate program within a participating Christian college. Participants must also be a professing Christian. Participants will be interviewed (60 mins.) and complete a journal exercise (15 mins.), which will be returned to me by email. Participants will also be asked to verify the accuracy of their recorded transcripts by email. If you would like to participate and meet the study criteria, please email ████████████████ for more information. A consent document will be emailed to you one week before the interview, and you will need to sign and return it electronically prior to the time of the interview.

Appendix E
Consent Form

Consent

Title of the Project: Ecology of Faith and Learning: A Case Study of the Experience of Spiritual Formation of Online Undergraduate Students
Principal Investigator: Phillip Vincent, Ph.D. student, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. In order to participate, you must be an enrolled full-time student in undergraduate studies within a Christian college within the United States. Participants must be professing Christians. Taking part in this research project is voluntary. Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to describe how online undergraduate students experience spiritual formation at a Christian college. For this study, spiritual formation is defined as "our continuing response to the reality of God's grace shaping us into the likeness of Jesus Christ, through the work of the Holy Spirit, in the community of faith, for the sake of the world" (Greenman & Kalantzis, 2015, p. 24). The theory guiding this study is Brofenbrenner's Ecological Systems Theory and Lowe & Lowe's Ecologies of Faith model as it explains the intersection of spiritual formation, higher education, and technology (Brofenbrenner, 1992; Lowe & Lowe, 2018).

What will happen if you take part in this study?

If you agree to be in this study, I would ask you to do the following things:
1. Participate in an interview during the Fall Semester. The interview will be virtual (through Zoom) to discuss your experience as an online undergraduate student and your personal spiritual formation practices. Interviews should take no more than 60 minutes to complete. The interview will be recorded.
2. Participate in one journal exercise during the Fall Semester to discuss your experience at Chapel. Journal prompts will be provided, and you will be given one week to complete the journal, then email it back to me.
3. Participants will also be asked to verify the accuracy of their recorded transcripts by email.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from participating in this study. Benefits to society include an increased public knowledge of spiritual formation at Christian colleges.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be kept confidential through the use of pseudonyms. Interviews will be conducted in a location where others will not easily overhear the conversation.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.
- Interviews will be recorded and transcribed. Recordings will be stored on a password locked computer for three years and then erased. Only the researcher will have access to these recordings.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University or your respective college. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Phillip Vincent. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at ███████████████████. You may also contact the researcher's faculty sponsor, Dina Samora, at ███████████████████.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to video record me as part of my participation in this study.

_____
Printed Subject Name

_____
Signature & Date

Appendix F

Interview Questions/Guide

1. Please introduce yourself.

2. In your own words, define "spiritual formation"?

3. What are the factors which influence your personal spiritual formation?

4. What are the spiritual formation practices/disciplines you personally engage in?

5. How often do you engage in the spiritual formation practices/disciplines just described?

6. In what manner and how often do you use technology for spiritual formation practices?

7. What differences, if any, do you find in your spiritual formation as an online student compared to traditional educational environments (if applicable)? Explain.

8. What efforts has your school taken to encourage your spiritual formation?

9. What efforts has your school taken to monitor your spiritual formation?

10. What specific techniques did your instructor use to facilitate spiritual formation at the course level?

11. How would you describe your experience with the efforts and techniques employed by the college and/or instructor related to spiritual formation?

12. In your opinion, what is the role of your Christian college in the spiritual formation of online students?

13. Describe your experience within the online learning environment.

    a. How would you describe the sense of faith community within the online classroom?

    b. How would you describe the importance of faith community within the online classroom?

      c. How were you encouraged or discouraged in your spiritual formation due to this faith community?

14. What else would you like to add, particularly as it relates to your experience as an online student with spiritual formation and technology?

Appendix G

Other Data Collection Procedures

Information was gathered through participant interviews, journals, and document analysis:

a. Participants were interviewed to understand their experience with spiritual formation from a distance through online education (Appendix F). These interviews lasted one hour and were recorded and transcribed.

b. Participants completed a journal exercise after attending one virtual Chapel service in to understand how the college fosters spiritual formation from a distance. The following journal prompts were answered:

     i. How is spiritual formation modeled in this Chapel service?

     ii. How is spiritual formation encouraged through this Chapel service?

     iii. How is participation in Chapel monitored by the school?

     iv. In what manner are Chapel personnel engaging online students in the Chapel experience?

     v. If you do not attend Chapel, why not? Do you attend a corporate worship gathering? If so, where and how often?

c. A variety of documents were collected and analyzed as data for this study:

    a. The college's academic catalog was studied to observe institutional policies and procedures related to the integration of faith and learning as well as technology use.

    b. Course descriptions for online undergraduate courses were studied to observe departmental policies related to the integration of faith and learning as well as technology use.

c. Course syllabi was studied to observe instructional, classroom policies and procedures related to the integration of faith and learning as well as technology use.