Academic Advising and the COVID-19 Pivot:
A Qualitative Case Study of the Transition to Virtual Advising

by

Judith Morrison Sanders

A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Auburn, Alabama
December 9, 2023

Keywords: academic advising, self-directed learning,
technology acceptance model, COVID-19 pivot

Approved by

Leslie Cordie, Chair, Associate Professor, Educational Foundations, Leadership, and Technology
Hannah Baggett, Associate Professor, Educational Foundations, Leadership, and Technology
Paris Strom, Professor, Educational Foundations, Leadership, and Technology
Jane Teel, Associate Clinical Professor, Educational Foundations, Leadership, and Technology

Abstract

The purpose of this study was to explore how academic advisors at a large, R1 university campus who traditionally offer mainly in-person services, pivoted to fully remote operations during the COVID-19 pandemic, and to narrate how these advisors adopted and integrated technology into undergraduate academic advising practices. The case study explored the advisors' perceived training and professional development needs and delivery preferences to facilitate more effective learning opportunities regarding technology for this population of advisors. Semi-structured interviews were conducted to gather the experiences of the advisors. Additional data sources included university-level communication and professional development opportunities offered during the COVID-19 pivot and subsequent time of remote work. The findings of the study illustrated that advisors' behaviors aligned with Self-Directed Learning theory as they worked to solve immediate and practical problems to provide virtual student services during COVID-19 pivot. The findings also supported that academic advisors were more likely to implement a specific technology into their advising practices based on concepts from Technology Acceptance Model, perceived usefulness and ease of use of the technology. The findings further illustrated that previous experiences were used as a foundation to learn to use new technology during the COVID-19 pivot as expected from the Model of Digital Literacy and Technology Literacy Dimensions. In such, this study contributes to the intersection of the advising and technology literature. The study also contributes to the advising literature as it provides documentation of the work of academic advisors to support students during a unique period that might be viewed as a historical milestone in the field of academic advising.

Acknowledgments

There are many people to acknowledge and thank for their influence on my work. First, I am thankful to God. I have been afforded a wonderful career in higher education and the opportunity to explore the intersection of my professional interests: academic advising and technology. My chair, Dr. Leslie Cordie, has been a steady foundation in this journey. She has held my work to a high standard and pushed me to think beyond my own experiences. She instilled confidence at times when I couldn't find it in myself. She has modeled adult learning theory and practice throughout my journey, and I am forever grateful. Dr. Hannah Baggett introduced me to qualitative research, and I am thankful for her nudging, and sometimes dragging, me to question my thinking and to look further into myself than I had been willing to look before. I am a better higher education professional for the guidance of these mentors. I also owe many thanks to Dr. Jane Teel and Dr. Paris Strom for serving on my committee as they brought needed expertise to the areas of academic advising and technology in higher education. Many thanks to Dr. Ben Farrow for serving as my outside reader. Who would have thought you would serve in this role when we were in adult education courses together years ago?

This journey would not have been possible without the participants in the study who gave willingly of their time and were open to my questions. The participants represent the heart and soul of the advising community, and they recognize the impact quality academic advising has on student success. They seek to make advising the best possible experience for students and are willing to participate in research that provides insight into how to elevate the field of academic advising and promotes scholarship in advising. I have high admiration for the participants and the resiliency they demonstrated during the COVID-19 pivot and pandemic. Thank you could never be enough!

Beyond committee members and participants, I owe the greatest thanks and gratitude to my family. To my husband, Gary, you have been my greatest support for more of my life than not. Thank you for always being by my side and asking if I have finished my “homework”. Your unwavering support means more than I could ever express here. My daughter, Amy, was a huge inspiration to complete my graduate degrees after stepping away from my initial start many years ago. Thank you for listening when the journey was long and hard. You inspire me to do better work than I ever think possible.

There are two Charlottes in my life that drive my motivation to learn and support others. My mother, Charlotte Morrison, sadly passed away before I completed this journey. She reared me to be a strong woman, to work hard, and to be responsible. She loved her family fiercely and encouraged this first-generation college student to dream big and push through to the end to achieve my goals. Her love, encouragement, and sacrifice for me fill the pages of my life, but especially these pages. She would expect nothing less than a completed task that I am proud to call my own. My precious granddaughter, Charlotte Raylee Duckett, joined our family during this process and has helped me find even more reason to complete this journey. I hope one day the tale of my journey will encourage her to pursue her own dreams to the fullest.

I am blessed with colleagues who were alongside me for this adventure. Colleagues who pushed me, encouraged me, and worked on class projects together after long days of advising students. My colleagues are superstars in the advising field, and I am honored to work with them in the higher education setting. My friend colleague, and expert proofreader, Bridget Beckum, has read every page of this work many times for clarity and accuracy. Thank you for being an extra set of eyes to find typos and for questioning me about qualitative research. I hope I can be as encouraging to you on your own dissertation journey as you have been to me. My supervisor,

Ruthie Spiers is the best cheerleader anyone could have in your corner. Thank you for the consistent encouragement and for convincing me I would finish this process one day. The inspiration poster in my office will not soon be forgotten!

Beyond my professional colleagues, I owe much to my dear personal friends, Kim Shaw and Chris Huggins, who have encouraged me or listened when stress crossed over into anxiety. There is no way to thank you enough for helping me find the world outside of this project when it was time for a break. The fact that you believed in me held me up many times when I thought I should simply through in the towel.

I have been blessed with the opportunity to pursue my post-secondary degrees while working with the best students and colleagues. My need to be a lifelong learner has been fueled through this experience and I will be forever thankful to everyone who played a role in the journey.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

ATT	Attitude in TAM and TAM2 Models
AU	Actual Use in TAM and TAM2 Models
BI	Behavioral Intention in TAM and Tam2 Models
CDC	Center for Disease Control and Prevention
COVID-19	Coronavirus
EAB	Educational Advisory Board
IPEDS	Integrated Postsecondary Education Data System
LA	Learning Analytics
NACADA	The Global Community for Academic Advising
MDLTLD	Model of Digital Literacy and Technology Literacy Dimensions
NACADA	National Academic Advising Association
PEU	Perceived Ease of Use in TAM and TAM2 Models
PU	Perceived Usefulness in TAM and TAM2 Models
SDL	Self-Directed Learning
TAM	Technology Acceptance Model
WHO	World Health Organization

Chapter 1

Introduction

Academic advising has a positive impact on student success, graduation rates, and retention rates, as well as the reputation of the post-secondary institution. (Klepfer & Hull, 2012; Mu & Fosnacht, 2019; Pascarella & Terenzini, 2005; Ross & Kena, 2012; Troxel, 2022; White, 2015). Retention and graduation rates are easily accessible to current and prospective students as well as other institutional stakeholders through the Integrated Postsecondary Education Data System (IPEDS) of the National Center for Education Statistics (Caruth, 2018; Yu, 2018). State, federal, research, and donor funding may also be impacted by retention and graduation rates further highlighting the importance of effective academic advising (Hossler, 2006; Miller et al., 2019; Pascarella & Terenzini, 2005; Titus, 2004; Zong & Davis, 2022). The need to maintain a favorable reputation, recruit a diverse and academically qualified student body, and secure appropriate funding places academic advising in the spotlight of higher education administration as advising plays a strong role in these highly visible factors of student success.

As the development of technology has impacted many aspects of our daily lives, higher education and student services have also been impacted. Academic advising is an area of higher education that has readily adapted to the increased use of technology (Troxel, 2022). Mobile phones, wireless devices, and custom applications provide increased access to technology and information for students and advisors (Flood & Black, 2011). Academic advising and student services offices have experienced an increase in the availability and utilization of technology not only related to devices, but also in areas of digital resources such as comprehensive and accessible websites and student success management systems including the Educational Advisory Board's Navigate and Starfish platforms (Herodotou et al., 2019; Seres et al., 2018;

Williamson, 2019). Electronic degree audits such as DegreeWorks housed within Banner or other student information systems and asynchronous communication such as email and texting are also readily available in the academic advising environment (Wang & Houdyshell, 2021; Williamson, 2019).

Academic advising practices have been further impacted as technology has provided enhanced communication methods and predictive analytics for student success. Technology is expected to continue to have a deep effect on advising as it continues to develop (Leonard, 2008). "If utilized effectively, technology in advising contributes positively to the student experience, supporting goals toward increased retention and improving learners' academic success" (Pasquini, 2011, para 19). Academic advisors are tasked to implement technological resources into their advising practices to increase task efficiency, create a record of student interactions, and inform decisions regarding academic intervention thus potentially increasing overall student success and retention (Mu & Fosnacht, 2019). There is no doubt technology integration has, and will continue to have, a significant impact on academic advising; the question is not will or when advisors will integrate technology into their advising practice, but how they will do so (Steele, 2018).

Background of the Problem

A dramatic shift in higher education occurred in March 2020 when pandemic-level cases of COVID-19 forced higher education institutions in the United States to cease in-person classes, as well as academic advising and student activities on university campuses. Institutions, faculty, and student advising staff reacted quickly to the mandate and created remote at-home work environments to facilitate many, if not all, traditional classes and student services (Harkavy, 2022). The focus of this instrumental case study was how academic advisors describe the process

to pivot and shift from predominately all in-person services to all virtual services in an emergency mode rather than a planned and organized shift. A secondary focus of the study was the exploration of how academic advisors describe using self-directed learning strategies and concepts of technology acceptance or adoption models to adapt during the remote work period of the COVID-19 pandemic.

Statement of the Problem

This case was bound in location at a large four-year, land grant, R1 institution in the southeast United States. The advising model at this institution is centrally coordinated but delivered in a decentralized manner. In response to the COVID-19 pandemic, all classes and student services at this university were mandated to move to emergency virtual operations and navigated the pivot in March 2020 similar to 93% of surveyed public four-year institutions (Johnson et al., 2020). This specific institution previously offered mainly in-person classes/services and online courses and virtual academic advising services were essentially non-existent. This created the need to significantly modify services and implement new technology to continue to provide advising services during the pandemic. Advisors in this case study were defined as higher education staff who focus on building relationships and helping make connections for students who need assistance with navigating the academic experience (Drake, 2011). More specifically, the advisors in this case study were limited to individuals with the job title of Academic Advisor I/II/III or Student Services Coordinator I/II/III. The advisors shifted quickly to create at-home work environments. In many cases, this included moving university computers and equipment to their homes to facilitate virtual appointments. Not only were academic advisors shifting their professional work to their home, but they were also navigating an unknown personal experience sharing spaces with children in virtual school and

spouses/significant others who were also working from home. The traditional system of colleagues and technology support teams was suddenly less available and contributed to creating a stressful environment as reported in mainstream media, blogs, and other grey literature (Burelison et al., 2021). Undergirding the entire experience was the fear of the unknown related to the COVID-19 disease and the shortage of basic supplies as a result of the closing of business and interruption of the supply chain.

While previous research has focused on the impact of technology on academic advising regarding student technology preferences, there has been little research conducted regarding the impact of technology from the advisor's perspective during the COVID-19 pandemic (Fries-Britt, 2008; Gaines, 2014; Steele, 2018). A search of the advising and technology literature produced limited research on the access to technology and the professional development or training needs of academic advisors tasked with integrating technology into their advising practice (Gaines, 2014). The lack of strong research in this area, along with the impact of COVID-19 causing many institutions to pivot from all in-person on-campus services to all virtual technology-dependent work, further supported the need for this case study.

Purpose of the Study

The purpose of this study was to explore how academic advisors on a large, R1 university campus who traditionally offer mainly in-person services pivoted to fully remote operations, and to narrate how they perceived technology literacy was acquired. The case study also was designed to explore how these advisors adopted and integrated technology into undergraduate academic advising practices during the COVID-19 pandemic pivot. An additional goal of the study was to describe differences in technology integration based on access and previous experience using advising technology, as well as the advisors' self-perceived digital and

technology literacy. The case study explored the advisors' perceived training and professional development needs and delivery preferences to facilitate effective learning opportunities regarding technology for this population of advisors.

Method of Study

A case study approach (Merriam, 1995) was used in this research study. The case study focused on a particular group of academic advisors (Merriam, 1998) who navigated the mandated pivot to virtual services during the COVID-19 pandemic. To facilitate virtual advising sessions the academic advisors were required to implement videoconferencing technology that had not previously been used in their advising practice. As this case study was bound by population it was also bound by time, the COVID-19 pandemic, and by location at a specific 4-year institution (Merriam, 1998). The case study provided narration of the self-constructed stories of the participants to assist the reader to understand this particular event with a rich description to more fully understand the case; the process of academic advisors pivoting during the pandemic and integrating technology during the pivot (Merriam, 1998).

Research Questions

The study focused on the following research questions:

RQ1: How do academic advisors at a large four-year, R1 institution, who provided predominately in-person services prior to the COVID-19 pandemic, describe the experience of the required pivot from in-person to virtual student services?

RQ2: How do academic advisors in this case describe the use of technology in their academic advising practice prior to and during the COVID-19 pandemic?

Access to technology, the integration of technology in academic advising, as well as differences in technology integration practices and professional development needs among advisors, were explored through these research questions.

Conceptual Framework

Individual theories of adult learning, technology acceptance, or technology integration could be used to explore this case study, but no single theory addresses the complexity of the case, the process to pivot to virtual services in an emergent manner. Thus, a conceptual framework provides structure to ground assumptions and the exploration of this case study (Merriam, 1998). The basic tenets of Andragogy, Self-Directed Learning (SDL), as well as Davis' (1989) Technology Acceptance Model (TAM), and Beetham and Sharpe's (2011) Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD) were utilized to form the conceptual framework.

Andragogy is the foundational theory of adult education. While Andragogy is attributed to Malcolm Knowles, the earlier work of John Dewey provided additional foundation for the theory of Andragogy. Dewey proposed that learning is a result of the learner's experience and interaction with the environment. (Dewey, 1938). Dewey also proposed that skills learned must be applicable to the present needs of the learner (Dewey, 1938). Developing the theory of Andragogy, Knowles proposed six assumptions (Knowles, 1980; Knowles, 1984; Merriam & Bierema, 2014). These include:

1. A learner matures from a dependent to a self-directed learner.
2. An adult learner accumulates experiences and uses them as a resource for future learning.
3. Readiness to learn is related to the learner's social role and impacts the learner's readiness to engage in learning.

4. An adult learner is problem-centered and seeks to learn for the more immediate need rather than future needs.
5. Adult learners are motivated by internal factors.
6. Adults desire to understand the reason for learning.

The synthesis of these assumptions creates a learning theory that describes an adult learner as self-directed and who draws from previous experiences to solve a practical or immediate problem.

Knowles (1975) continued beyond the basic tenets of Andragogy in defining the process of adult learning as he focused on Self-Directed Learning (SDL) as a self-initiated approach to assess needs, set goals, identify resources, select strategies, and evaluate learning outcomes. Tough (1971) proposed that learning efforts take place all around the learner even when the learner is not aware.

Brockett and Hiemstra (1991) expanded the theory of SDL with their Personal Responsibility Orientation Model which proposed that learning is the personal responsibility of the learner and is expected for personal growth. Hiemstra and Brockett (2012) furthered SDL with an updated model that focused on the relationships among the person, process, and context elements of SD, thus refining the concept of personal responsibility. In many situations one element may be more influential than the other two, but SDL is optimized when the elements are balanced (Hiemstra & Brockett, 2012). These theory components suggest SDL is a process that builds upon previous learning experiences and is initiated by the learner after identifying a need. SDL concepts were used to frame participants' descriptions of how they learned about technology and navigated the COVID-19 pivot.

Technology Acceptance Model (TAM) proposed by Davis (1989) includes five basic concepts in the conceptual model: perceived usefulness (PU), perceived ease of use (PEU), attitude towards using technology (ATT), behavior intention (BI), and actual use (AU). Davis proposed these concepts determine a learner's willingness to learn about and implement new technologies into their work and personal lives. Concepts from TAM were used to provide structure to the participants' descriptions of their decisions to implement new technology during the COVID-19 pivot.

The Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD) is a hierarchical model proposed by Shape and Beetham (2010) to understand the process of learning about technology. The pyramid foundation is based on having access to technology and the next level, skill, is built upon access. The ability to function within a given technology with achieved competence (skill) is the foundation for the upper levels of the pyramid: practices and attributes or identity. At the attribute level, the learner expresses confidence and is more engaged having achieved an identity related to technology. When learners, such as the academic advisors in this case study encounter new technologies, it is expected they will build on previous experiences with confidence and move among the pyramid levels to gain additional skills.

Questioning about the process to pivot and implement technology in academic advising practice through the lens of Andragogy and SDL combined with the likelihood of technology adoption/acceptance based on ease of use and perceived usefulness from TAM, and the visual Model of Digital Literacy and Technology Dimensions provided a framework for the constructed reality of the participants in the case study. Overall, the conceptual framework was used to organize the academic advisors' descriptions of how they learned about and implemented

technology into their advising practice specifically during the initial pivot of services to a virtual modality in the COVID-19 pandemic.

Assumptions of the Study

This case study was conducted using a constructivist lens in which the participants and researcher constructed their own perceptions of reality and describe their perceptions based on their unique experiences. Each participant perceives reality differently and personal views are formed based on their personal experiences and interactions (Terry et al., 2022). The constructivist epistemology aligns with the relativist ontological view that proposes reality is dynamic and constructed by the individual (Terry et al., 2022).

The primary assumptions of this study were that advisors' perceptions vary in their beliefs regarding how they acquire digital literacy skills. It was also assumed these differences are based on the perceived level of technology and digital literacy or competency of the participants. Finally, it was assumed that the value of professional development is perceived differently by academic advisors and the needs and preferences of the delivery modality of professional development also differ among the advisors in this case.

Significance of the Study

As discussed previously, an increased understanding of how advisors learn and integrate technology into academic advising practice could potentially lead to more effective academic advising, thus increasing student retention and graduation rates (Pasquini, 2011). An increase in student retention and graduation rates may lead to a more positive institutional reputation as well as maintenance or increased funding for the institution (Zong & Davis, 2022). Additionally, a more complete understanding of advisors' learning and professional development needs might inform administrators' decision making thus enhancing training and professional development

opportunities in terms of skill acquisition, cost, and better outcomes for advisors as well as students (Zarges et al., 2018). This study is expected to contribute to the literature regarding the historical response of higher education, specifically academic advising, to the COVID-19 pivot.

Limitations/Delimiters of the Study

An understanding of the phenomenon of technology integration and training needs may be enhanced through the themes identified in the findings of this case study. This study is an instrumental study of the process of the COVID-19 pivot in a population of academic advisors at a specific university, the case. As such, the findings are not expected to be widely generalizable to other populations of academic advisors or situations. Instead of seeking generalizability, the reader should decide if the findings are transferable to their situation based on the description of the case parameters (Schwandt, 2015).

Definitions of Terms

1. Academic Advisor – Higher education staff who focus on building relationships and helping make connections for students who need assistance with navigating the academic experience (Drake, 2011). The institution in this case study outlines the job responsibilities of Academic Advisors I/II/III and Student Services Coordinators I/II/III in detail. Generally, the institution requires that an academic advisor perform a minimum of 50% of their job tasks assisting college students with academic or related concerns Appendix A outlines the job responsibilities of the participants included in this case study.
2. Case Study – Qualitative research method in which a phenomenon is explored within a bounded system or population. (Merriam, 1998; Schwandt, 2015)
3. Coronavirus (COVID-19) – An infectious disease caused by the SARS-CoV-2 virus

4. Degree Audits – Comprehensive review of degree requirements and courses completed
5. Digital Communication – Email or SMS (text) messages
6. Digital Literacy – An ongoing developmental process to gain access to technology, skills, and experience needed to effectively use and adopt technology (Beetham & Sharpe, 2011; Soltovets, et. al, 2020).
7. Learning Management System -- Software designed to create, distribute, and deliver educational content. https://moodle.com/news/what-is-an-lms-learning-management-systems-explained/
8. Professional Development – Specialized training or educational opportunities to increase knowledge or skill in a particular area. https://www.webce.com/news/2020/07/16/professional-development
9. R1 Institution – Higher education institution that awarded at least 20 research/scholarship doctoral degrees during the last update year and who reported at least $5 million in research expenditures. The R1 institution is considered as having a very high research activity level. The Carnegie Commission on Higher Education, 2022
10. Student Success Management System – Digital tools used to record student interactions in a virtual or digital platform. The platform may include predictive analytics and creates a care network for professionals across campus to work together to support student success. (Venit, 2017).
11. Technology – The practical application of knowledge; manner of completing tasks using technical processes (Merriam-Webster, 2023).

Organization of the Study

Chapter 1 introduces the study, including the study problem, purpose, and research questions. The significance of the study, assumptions, limitations, and definitions of terms are included. A review of the literature regarding the history of academic advising, utilization of technology in advising practice, technology literacy and its impact on technology adoption, and the delivery of professional development and training in higher education are provided in Chapter 2. The conceptual framework based on SDL, TAM, and MDLTLD is included to provide a foundational framing for the study. Qualitative research methods related to the case study method, including participant selection, data generation, interview protocol, and data analysis processes, are discussed in Chapter 3. Chapter 4 presents the findings of the case study through the narration of the participants' stories and a thematic analysis of the themes within the findings. A summary of the study, a discussion of limitations, and recommendations for future research are included in Chapter 5.

Chapter 2

Literature Review

Chapter 2 provides a review of the literature and research on the historical foundation of academic advising, the current definition or concept of academic advising, the technology utilized in advising, and the professional development and training of advisors. Additionally, the response of higher education, student services, and most specifically academic advising services regarding the COVID-19 pandemic is presented. The chapter provides a review of the theoretical models forming the conceptual framework used in this study: Self-Directed Learning (SDL), Technology Acceptance Model (TAM), and the Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD). Finally, a summary of the chapter is presented.

Academic Advising

Academic advising has been a component of the student experience since the beginning of the first higher education institutions in the United States, albeit the roles and responsibilities of the advisor or person responsible for advising tasks have changed (Gillespie, 2003; White, 2015). It is meaningful to consider the history of advising to understand the evolution of the role, and how it has adapted to the changing needs of students and higher education in general. (Ghanem & Rao, 2021). Ghanem and Rao (2021) also emphasized that technology has become an integral part of the current advising practice, as well as how academic advising has adapted to the changing needs of students and higher education in general.

History of Academic Advising

Sandra Cook provided a detailed chronological history of academic advising through the end of the 20th century (Cook, 2001). A historical record from the end of Cook's work was not

identified in the literature search thus the history of academic advising presented here is mainly focused on the historical record of Cook.

In the late 18th century as higher education institutions began to emerge in the United States the faculty and president of the institution advised students regarding many facets of their lives, including extracurricular activities as well as their personal and academic lives, effectively serving as the first academic advisor (Gallagher & Demos, 1983). The president was viewed as *in loco parentis* for students. Kenyon College created the first formal advising process in the late 1820s (Cook, 2001). Each student was assigned a faculty member who served as an academic advisor. The focus of advising remained loosely defined academically and the advisor continued to serve as a substitute parent. Harvard created the first Dean position in 1870 and advising began to be more defined specifically in terms of student affairs and academic affairs (Cook, 2001). The Dean was tasked with handling student discipline or student affairs and faculty began to serve as academic advisors handling more academic concerns. Faculty advisors were first officially noted in academic advising history in the late 1800s at Johns Hopkins University (Cook, 2001). Through the late 1880-1890s, Johns Hopkins and Harvard University continued to create positions that facilitated more division between academic matters and student affairs Cook, 2001).

The 20th century brought more changes to the area of advising according to Cook (2001). Academic advising was first differentiated from personal and vocational advising and brought into its own focus area as curriculum became more complex. This change further allowed faculty advisors to focus on academic issues such as curriculum selection and student success, as opposed to personal counseling and career or vocational guidance, which was addressed by the Dean of Women or Dean of Men (Cook, 2001). Orientation classes were created in the early

1900's to provide students with a focused view of the purpose and goals of higher education. This provided specific spaces and times to advise for course selection as well as new student activities (Cook, 2001; Gordon, 2004).

As World War I veterans returned to the United States, the need to address the psychological and vocational needs of non-traditional students was at the forefront of higher education (Cook, 2001, Gallagher & Demos, 1983). Institutions continued to create new student orientations for traditional-aged students as they also worked to meet the needs of the non-traditional student. Focusing on the needs of different student types made advising processes more complex than ever before. Faculty, as experts and full-time instructors in their field of study, were not prepared to handle the counseling needs of the non-traditional veteran student population, thus academic counselors became more commonplace and supplemented the work of faculty advisors (Cook, 2001). The structure to support academic advising continued to evolve as the G.I. Bill became available to post-World War II veterans. Institutions continued to work to address the specialized needs of the non-traditional student while also supporting traditional aged students. The need for specialized professionals to provide counseling and course selection guidance was further identified during this time (Cook, 2001).

Students in the 1970s demanded improved academic advising services as retention and enrollment of traditional students faltered. A study by The Carnegie Commission on Higher Education conducted in 1978 resulted in a recommendation that academic advising should be considered with high priority in the higher education process and more attention should be given to the field (Cook, 2001). Even as traditional student enrollment decreased, higher education institutions continued to experience an influx of non-traditional students (Cook, 2001). Students entered the institution with new and different needs such as physical and emotional disabilities,

lack of academic preparedness, and financial challenges than previous student populations and academic advisors were tasked with addressing these needs along with course selection (Cook, 2001, Gordon, 1992).

The remainder of the 20th century saw tremendous changes in the field of academic advising. Cook (2001) documented the beginning of the first national advising professional organization as the National Academic Advising Association (NACADA) was established and held its first national conference in 1977. In the 21st century, NACADA remains the anchor professional organization for advising and is known as NACADA, The Global Community for Academic Advising. NACADA holds state, regional, national, and international conferences annually and supports and recognizes the work of advisors through research and awards working to increase professionalism in the field (NACADA).

Most recently, the history of academic advising has been impacted by the COVID-19 pandemic as advisors supported students throughout the pandemic with more than course selection and career planning. During the pandemic, advisors were also tasked to assist students with complex health and safety issues and policies with compassion and confidence while navigating their own COVID-19 pivot that was stressful and chaotic (Turner & Farr, 2020).

Current Academic Advising

Academic advisors provide a myriad of services to higher education students dependent on institutional expectations, as they may be tasked with providing personal counseling and career counseling, along with advising for academic concerns (Gillespie, 2003; Troxel & Kyei-Blankson, 2020; Wang & Houdyshell, 2021). Academic concerns might include soft skills such as study skills, and time management, as well as overall academic performance. At a basic level, the academic advisor provides information concerning the chosen major and guides the student

to create a plan of study to include a timeframe to complete the required coursework for the major. The academic advisor is tasked to be competent with curriculum requirements and academic policy and to collaborate with campus partners to provide comprehensive services to students.

The role of an academic advisor is specified by each institution, but generally focuses on building relationships and helping make connections for students who need assistance with navigating the academic experience (Drake, 2011). Given the inconsistency of expectations with the advising field, a task force was formed by NACADA in 2003 to form a more standard definition of academic advising (Larson, et al., 2018). The resulting definition is not a standard dictionary definition but provides a foundation for the relevance of the advisor to the institution. The task force agreed upon and put forth the following definition: "Academic advising applies knowledge of the field to empower students and campus and community members to successfully navigate academic interactions related to higher education" (Larson, et al., 2018). The definition, while not providing a play-by-play of the daily work of an advisor, provides a reference to the idea that an advisor does not do the work for the student, yet provides multiple resources, and empowers students to make choices. The definition or concept of advising further identifies the key stakeholders related to advising which include the student, the campus, and the community. Finally, the goal of academic advising is to assist stakeholders and students to navigate or work through academic interactions successfully. How this definition is achieved remains at the discretion of the advising community and the advising leadership at the local institution (Larson, et al., 2018).

Importance of Academic Advising

Academic advising is viewed as one of the most important aspects of the undergraduate student experience, and positively impacts the retention and academic success of the undergraduate student (Mu & Fosnacht, 2019; Pascarella & Terenzini, 2005; Thomas, 2017). Retention rates, graduation rates, and overall academic success are viewed as markers of institutional quality that are captured and reported in national rankings, including the annual *U.S. News and World Report on College Rankings* (Meredith, 2004). Rankings, such as the one compiled by *U.S. News* use retention rates for up to 25% of the ranking criteria, thus making retention a vital component of advising? (Jamelske, 2009). The reputation of the institution, student recruitment, and financial giving is impacted by the national rankings and student success markers reported in the public media thus influences a student's choice of institution (Hossler, 2006; Pascarella & Terenzini, 2005; Titus, 2004).

The importance of academic advising is also supported by research on the need to establish a sense of belonging to the institution as a key component of student retention. Academic advisors assist students to establish a sense of belonging as they make the "unspoken spoken" and provide opportunities for the student to connect with a professional at the institution (Caruth, 2018; Nutt, 2003; Tinto, 2016). Research demonstrates if a student makes a connection with at least one professional at the institution the student is more likely to be retained and persist to graduation (Hunter & White, 2004; McMurtrie & Supiano, 2022). Academic advising is likely the only event that can "guarantee students sustained interaction with a caring and concerned adult who can help them shape such an experience" (Hunter & White, 2004, p. 21; White, 2015).

A professor in the Harvard University Graduate School of Education focusing on policies in higher education, Richard Light (2001) stated, "Good advising may be the single most underestimated characteristic of a successful college experience" (p. 81). While this core statement was penned in 2001, Light continued to emphasize the importance of academic advising through the COVID-19 pandemic as he encouraged students to connect with advisors through Zoom and other virtual modalities (Light, 2020).

Adoption of Advising Technology

Academic advisors must adapt and include technology in their advising practices to meet the needs of students and provide effective support (Underwood & Anderson, 2018). Some advisors may be resistant to change and the addition of technology into their work, but many administrators feel advising technology has the potential to increase the efficiency and effectiveness of advising practice (McMurtrie & Supiano, 2022). Advising technologies can ease the burden of the most rote and mundane tasks such as degree requirements and course selection leaving more time for other conversations and student guidance (Steele, 2018).

NACADA conducted a survey in fall 2002 to identify the types of technologies used in advising sessions at that time. This survey showed technology making its way into advising practice through a variety of tasks. Email, web browsers, and word processing were the most frequent responses with other technologies such as electronic calendars, spreadsheet software, database software, and presentation software reported at a lower level (Leonard, 2004). Table 1 illustrates the responses of the participating advisors on the 2002 survey.

Table 1

Technologies used by respondents on a regular basis in their advising role

Technology	%
E-Mail (Eudora, Outlook, etc.)	97

Web browser (Internet, Netscape, etc.)	91
Word Processing software (Word, WordPerfect, etc.)	89
Electronic calendar (Lotus Organizer, Outlook, etc.)	58
Spreadsheet software (Excel, Lotus 1-2-3, etc.)	51
Database software (Access, FileMaker Pro, etc.)	47
Presentation software (Freelance Graphics, FrontPage, etc.)	45
Brochure/document editors (PageMaker, Publisher, etc.)	29
Web page software (Dreamweaver, Fireworks, FrontPage, etc.)	25
Course management software (Blackboard, WebCT, etc.)	21
Handheld devices (Palm, Visor, etc.)	13
Graphics software (Illustrator, Paint Shop Pro, PhotoShop, etc.)	11
Instant messaging (Instant Messenger, Netmeeting, ICQ, etc.)	10
Voice recognition software (NaturallySpeaking, ViaVoice, etc.)	2
Assistive/adaptive devices (screen readers, Braille displays, etc.)	1
No Response	<1

Note. Adapted from Leonard, 2004

Twenty years later, most of these technologies, or some form of them, still existed on university campuses (Pasquini, 2011), yet a review of advising literature did not identify a new survey. Videoconferencing and learning analytics were two newer technologies related to academic advising that are identified in the literature.

Videoconferencing is a technology that became part of the advising toolbox recently as remote advising has gained popularity and became a critical component to provide virtual advising services during the COVID-19 pivot due to institutional shutdowns (Wang & Houdyshell, 2021). Synchronous communication tools such as Zoom, Teams, and Google Meets replaced the traditional office space for advisors and students (Wang & Houdyshell, 2021).

Additionally, learning analytics (LA) platforms became part of the daily routine of academic advisors (Jones, 2019). Some proposed that academic advising could be more efficient through the use of data and analytical techniques to identify at-risk students and by intervening more quickly; thus, increasing student success and retention (Aguilar et al., 2014; Desouza & Smith, 2016; Kraft-Terry & Kau, 2016). In a study of advisors expected to use LA in their

advising practice, Jones (2019) reported that advisors who participated in the study rejected the technology due to an "overcrowded advising toolbox" and the lack of usability of the technology. The advisors expressed they preferred to rely on their own insight and anecdotal experiences rather than depending on the LA to identify at risk students and needed interventions. Even so they felt pressured by supervisors and institutional leadership to employ LA to support student success initiatives (Jones, 2019).

There is tension in the literature when considering the report by Jones in which advisors rejected the use of LA and the idea that advisors should be agents of change (Underwood & Anderson, 2018). These researchers posited that advisors encouraged students to adapt and accept change and thus, advisors should model this behavior and be open to change and model adoption of new technology. Underwood and Anderson (2018) suggested advisors can play an important role in how technology might be implemented into the advising practice rather than waiting for it to be mandated. The practice of being an early adopter also positions the advisor to be more in tune with how their students utilize technology (Lowenstein, 2013).

Virginia Gordon, past president of NACADA, was a prolific writer and advocate for the advancement of the field of academic advising. In *Academic Advising: A Comprehensive Handbook*, Gordon et al. (2000) seemed to predict the importance of adopting technology into advising practices. Twenty years later, technology platforms are commonly part of the advising session, as was particularly during the COVID-19 pivot to virtual services.

> As we contemplate the future of higher education and our roles as advisors, we must always be cognizant of society's accelerated rate of change and how it will affect our personal and professional lives. Advisors must never lose sight of their noble purpose of providing students with an accepting and challenging environment in which they can learn and grow to their full potential. In the future, advisors will need continually to develop new technological skills, expand their expertise in career advising, learn new skills as communicators and interpreters of complex information, and become more involved as collaborators with both institutional and community resources. A new role –

> that of advisor as futurist – will be essential if we are to help ourselves and our students succeed in a rapidly changing world. (pp. 381-392).

As advisors accept new technologies such as videoconferencing, predictive analytics, social media platforms, and other technology products that provide student data, it is important to consider what resources and professional development opportunities are needed to support the utilization of technology in academic advising practice.

Professional Development and Training in Academic Advising

Professional development, when considered a component of adult education, is the process and opportunity for learning to bring about change in attitude and skill (Ross-Gordon et. Al, 2017). Human resource websites and blogs define professional development and training as continuing education or training opportunities designed to assist a person in the workforce to develop needed skills and grow in their position (WebCE, 2022). Effective professional development provides opportunities for the worker to stay current with changes and innovations to gain new skills related to their position (SHRM, n.d.). Applying this general concept of professional development to academic advising, McGill et al. (2020), acknowledged that academic advising is considered an emerging professional field even though there is a long history of the professional practice of advising in higher education. As the field emerges into a recognized professional field, McGill et al. (2020) asserted that academic advisors come from a diverse set of previous positions without a specific skill set to successfully navigate the components of the advising position. McGill et al. (2020) continued by stating that given advisors approach their advising practice from different backgrounds they should have training and professional development opportunities available immediately upon hire and throughout their careers.

Professional development opportunities illustrate a connection to adult education and potentially SDL McGill et al., 2020). Advisors who are self-directed learners will seek out or engage with opportunities related to their immediate needs and support solving practical problems. According to McGill et al. (2020), the connection to adult learning was established by Bitterman (1985) when she linked the evolution of academic advising to the concept of developmental learning of adult learners. Bitterman (1985) stated that based on Knowles work, academic advising would become less transactional and more focused on assessing needs. Though this connection was established more than thirty-five years ago, it was not until 2017 that the concepts were pushed forward into practice as universities have more consistently developed professional development programs for academic advising (McGill et al., 2020). Like many other universities, the institution in which this case study is positioned, has developed a new advisor orientation program to provide a foundational introduction to the advisor position, an ongoing professional development program with opportunity to select sessions dependent on the specific needs of the advisor, and a website to provide reference for institutional policy and additional resources.

Previously, Habley (1986) identified three core competencies as critical components of academic advising practice: conceptual, informational, and relational. As the primary professional organization for academic advising, NACADA reaffirmed these core competencies in 2017 and established the NACADA Academic Advising Core Competencies Model (NACADA, 2017). The model outlines the three competency areas in the following manner:

- Conceptual competency is related to the information needed to effectively advise students. This includes theories and concepts related to advising.

- Informational competency includes institution-specific information needed to effectively advise students such as curriculum models, institutional policy, and additional foundational knowledge. Technology skill is included as part of this competency area.
- Relational competency is related to how an advisor should communicate concepts and information to students including how to communicate with a diverse group of students and build relationships (NACADA, 2017).

The NACADA Academic Advising Core Competencies Guide (2017) stated that all three components are necessary for advisors to provide excellent advising practice. Farr and Cunningham (2017), executive leaders in NACADA, agreed that all three components are critical for effective advising and assessment of these components will identify gaps in the knowledge and skill of the advisor. An understanding of the gaps allows the advisor to seek appropriate training and professional development opportunities thus establishing a strong connection between adult learning and professional development for academic advisors (Farr & Cunningham, 2017).

COVID-19

There has been a limited amount of research published to date concerning the COVID-19 pandemic and the resulting pivot to virtual academic advising and student services. Research is emerging in specialized areas such as health related fields. Information regarding the United States' general response to the pandemic and pivot was found in the grey literature including the official CDC and WHO websites.

Timelines outlining the COVID-19 pandemic available on the websites of the American Journal of Managed Care and the Center for Disease Control define Coronavirus disease

(COVID-19) as an infectious disease caused by the SARS-CoV-2 virus (CDC, 2022). The timelines indicated COVID-19 was declared a pandemic on March 11, 2020, by the World Health Organization (WHO) and a national emergency was declared in the United States a few days later. The timeline shows the United States began to shut down in-person activities to slow the spread of the virus on March 15, 2020, closing schools, restaurants, and many other public entities. Mask mandates were issued in April 2020 and the WHO declared the pandemic a worldwide emergency in May 2020 (WHO, 2022). The death toll in the United States attributed to COVID-19 illness was reported at over 200,000 on September 22, 2020 (WHO, 2022e). The death toll related to COVID-19 continued to increase and was reported as more than 400,000 on January 18, 2021, and more than 500,000 the following month (WHO, 2022). The timeline on the website continues to document vaccine development and distribution guidelines, as well as further CDC and WHO guidance, through the end of 2021 when many businesses and schools returned to operations with masking and social distancing guidelines in place.

Higher Education Response to COVID-19

Higher education followed a similar path as public schools, businesses, and other entities concerning mask mandates and subsequently ceasing all in person activities. A quick pivot from in-person services to all virtual classes and student services occurred in March 2020 for many institutions including the institution in this case study. This institution has documented its decisions, communication, and actions using a confidential, shared network drive. Access was granted to these documents for reference for this study and approved by the Institutional Review Board to consider the documents as a data source. While these documents are not part of a traditional literature database, they are valuable for reference in this study to support the reflections of the participants and to provide opportunity for triangulation in the data. The

documentation mirrors what was reported in the mainstream media during the timeframe of the pandemic.

The university in this case study ceased in-person operations on March 16, 2020. All classes and student services pivoted abruptly to virtual operations following the mandate. Strict masking and social distancing mandates were put in place for those individuals who needed to be on campus. University documentation continued with communication to campus partners and shareholders outlining updated guidelines regarding remote workspace, expectations, vaccine availability, and later vaccine requirements.

NACADA (2022) also provided resources and guidance related to COVID-19 for the academic advising community on the NACADA website during the pandemic. NACADA offered webinars, virtual chat rooms, and written communication related to virtual advising services to provide support and professional development opportunities for advisors during the timeframe of the pandemic.

Adult Learning

The COVID-19 pandemic, and resulting social distancing, stripped away many of the traditional support structures for academic advisors. Advisors at this institution were forced to seek learning opportunities in different ways including informal settings rather than group professional development sessions. Advisors were expected to work, and thus learn, more independently during the COVID-19 pivot. This expectation fits well into the basic tenet that much of adult learning occurs through experience and informal learning situations (Lindeman, 1984). Academic advisors at this institution are constantly involved in informal learning through interactions with students and collaborations with colleagues. This coupled with their need to solve practical problems and to satisfy the need for new information or how to use a new

technology tool, positions the advisor to employ adult learning strategies to their situation. As adult learners, Andragogy and SDL form a framework to support the development of professional development and training opportunities for academic advisors.

Andragogy

The foundation of adult learning is Andragogy. Andragogy focuses on the experiences and prior knowledge of the adult learner as well as the motivation to learn. Knowles defined Andragogy in terms of how to help adults self-direct their learning and proposed six assumptions in his adult learning theory (Knowles, 1975; Merriam & Bierema, 2014). These include:

1. A learner matures from a status of a dependent learner to a self-directed learner.
2. An adult learner accumulates experiences and uses them as a resource for future learning.
3. Readiness to learn is related to the learner's social role and impacts the learner's readiness to engage in learning.
4. An adult learner is problem-centered and seeks to learn for the more immediate need rather than future needs.
5. Adult learners are motivated by internal factors.
6. Adults desire to understand the reason for learning (Knowles, 1975; Merriam & Bierema, 2014).

The synthesis of these six assumptions creates a learning theory that suggests an adult learner is self-directed and draws from previous experiences to solve a practical or immediate problem. For example, academic advisors work in an ever-changing environment and each student interaction is unique and increases the knowledge and experience base of the advisor. Advisors often rely on previous experiences to find a solution to a problem. During the COVID-19 pandemic, there were new challenges or problems in which the advisor needed to relate previous

experiences to learn to use innovative technologies or to assist students with concerns outside of the normal scope of advising such as access to technology/internet, personal and family health concerns, social isolation, and housing or food needs.

Self-Directed Learning

Self-Directed Learning (SDL) is based on the theory of Andragogy and is one of the "most influential areas of study and practice in adult education" (Brockett & Donaghy, 2005). SDL is traditionally attributed to Tough, but the work of Houle (1961) and Knowles (1975) is considered foundational to Tough's work. Houle's book from 1961, *The Inquiring Mind*, brought the concept of SDL to the forefront of his graduate students, Allen Tough and Malcolm Knowles (Loeng, 2020; Merriam, 2001) and influenced the work of his graduate students. Through his work, Tough (1971) concluded that adults learn a great deal by reading, observing, and reflecting through normal activities. Adding to Tough's work, Knowles (1975) defined SDL as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes." (p. 18)

Loeng (2020) and Merriam (2001) discussed that other researchers have offered support and dissent to the concept of SDL. For those who espouse the theory of SDL, it is assumed that self-directed learners take initiative regardless of the impact of others, to identify their needs, create goals, isolate resources, choose the method to learn, and subsequently evaluate their learning (Loeng, 2020; Merriam, 2001).

In an example of SDL, Walsh (2017) applied the theory to the field of medicine and how physicians learn to target their learning needs to specific knowledge gaps. Walsh suggested a

physician (adult learner) should identify a gap in knowledge related to a specific need, set goals, identify resources, identify a learning strategy, and then evaluate the outcome in order to gain knowledge to treat or provide education for their patient. Similarly, advisors might identify a need to learn how to use a new technology and set goals to complete the learning process. The advisor needs to decide what resources are needed to learn about the technology and the way they want to learn. Ultimately, the advisor will evaluate the outcome of the learning to determine if they have the knowledge and skill needed or if they should pursue additional learning opportunities.

Andragogy and SDL provide an appropriate foundation to frame the participants' stories of the process to pivot in the COVID-19 pandemic and solve any new learning needs. Learning theories are composed of practical steps an adult learner progresses through to determine learning needs, secure resources, choose a strategy, and evaluate outcomes and identify the process advisors completed during their learning process during the pandemic.

Technology Acceptance, Utilization, and Literacy

A framework was also needed to explore the perceived reality of academic advisors regarding their acceptance and utilization of advising technology specifically through the transition to virtual services during the COVID-19 pandemic. The Technology Acceptance Model (TAM and TAM2) (Davis, 1989; Venkatesh & Davis, 2000) and the Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD) (Beetham & Sharpe, 2011) were used to create the conceptual framework. TAM provided context to the advisors' description of why they may or may not have adopted or implemented new technology during the virtual work period. TAM2 added the influence of external influences, particularly job relevance, to the original TAM model (Venkatesh & Davis, 2000). It was anticipated by the researcher that

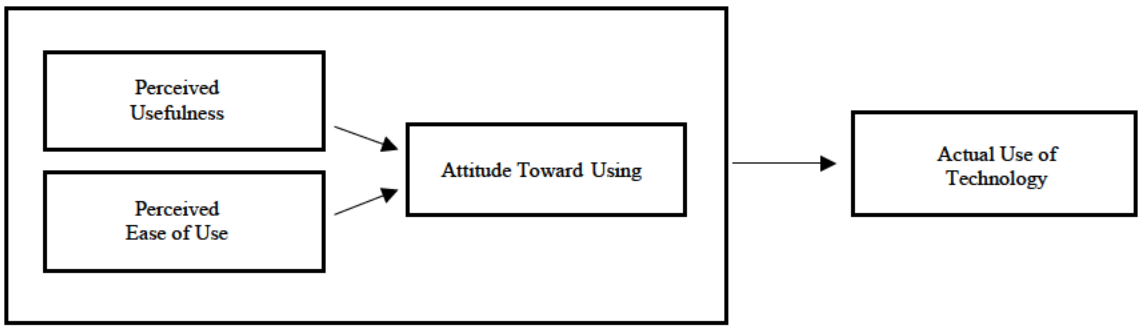
advisors would describe their decision to implement technology in terms of ease of use or usefulness as outlined in TAM and consider relevance to their job tasks as outlined in TAM2. The Model of Digital Literacy and Technology Literacy Dimensions was used to support the advisors' description of learning about new technologies and how they build on previous experiences and possibly gain confidence which encourages them to explore new technologies more readily.

Technology Acceptance Model

Technology Acceptance Model (TAM) (shown in Figure 1) is a theory from the field of information systems, which provides a framework for the acceptance and use of technology in a user's personal or professional life. TAM proposes that a user's willingness to utilize technology is based on five basic concepts: perceived usefulness (PU), perceived ease of use (PEU), attitude towards using the technology (ATT), behavioral intention (BI), and actual use (AU) (Alshammari & Rosli, 2020; Davis, 1989).

Figure 1

Technology Acceptance Model



Note. Adapted from Davis, 1989.

Perceived usefulness is defined as the degree to which a person believes the technology is useful for a specific task or job. Perceived ease of use is defined as how easy the technology is to

use (Davis, 1989). The theory posits that attitude plays a role in the actual use of technology and that social influence, gender, and age might influence attitude, thus the actual use of technology. TAM 2 was developed by Venkatesh and Davis in 2000 and retained the basic concepts of PEU and PU but added the effect of social influence. TAM 2 added that social influences and job relevance, beyond perceived ease of use and usefulness, influence the decision to employ specific technologies in the workplace (Alshammari & Rosli, 2020).

TAM is widely accepted (Chen et. al, 2011), but is not without criticism for its simplicity or limitations (Shachak et al., 2019). Applications of TAM are widespread in the literature but are mainly quantitative and focus heavily on the predictability of technology acceptance and adoption. For example, in a study to determine the acceptance and adoption to use the internet Shih (2004) reported that TAM strongly determined the perceived usefulness, ease of use, and user attitude when seeking information for work-related tasks. The same was not found for the personal use of the internet though. Interestingly in this study, Shih (2004) also found that relevance was a strong predictor of perceived ease of use, perceived usefulness, and attitude toward the adoption of the technology other than information seeking. This indicated that relevance of the technology to the job tasks predicted or influenced the perceived ease of use, perceived usefulness, and attitude toward adoption of technology.

Similarly, Pal & Vanijja, (2020) reported strong findings for the usefulness of TAM to predict end-user intent to use a technology product in a study investigating the utilization of Microsoft Teams as a learning platform during the COVID-19 pandemic. TAM appears to be reliable in terms of quantitative research but is not often applied to qualitative study. For this qualitative case study, the basic concepts of perceived usefulness and ease of use, along with

attitude and actual use, were used to frame and code participants' descriptions of utilization, adoption, and usefulness of technology during the COVID-19 pivot and pandemic.

Model of Digital Literacy and Technology Literacy Dimensions

As technology becomes more prevalent in the workplace and higher education, increased digital literacy is required to be most effective (Bennett, 2014). Digital literacy is an ongoing developmental process to gain access to technology, skills, and experience needed to effectively use and adopt technology in the user's life (Beetham & Sharpe, 2011; Soltovets, et al., 2020).

Beetham and Sharpe (2010) proposed a hierarchical model or pyramid to illustrate the process of learning about technology and gaining digital literacy illustrated in Figure 2. The hierarchy is composed of foundational elements and the user is thought to move upward to a level of establishing an identity. In the hierarchical model, the foundation is an essential need that must be met to move forward. In the Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD), the foundation is access to technology and the necessary devices to use software, the internet, and other applications as needed. The model progresses through additional levels to meet additional needs and reach the highest level. Beetham and Sharpe's uppermost level reflects the user has achieved identity as a competent user of technology (Bennett, 2014; Handley, 2018).

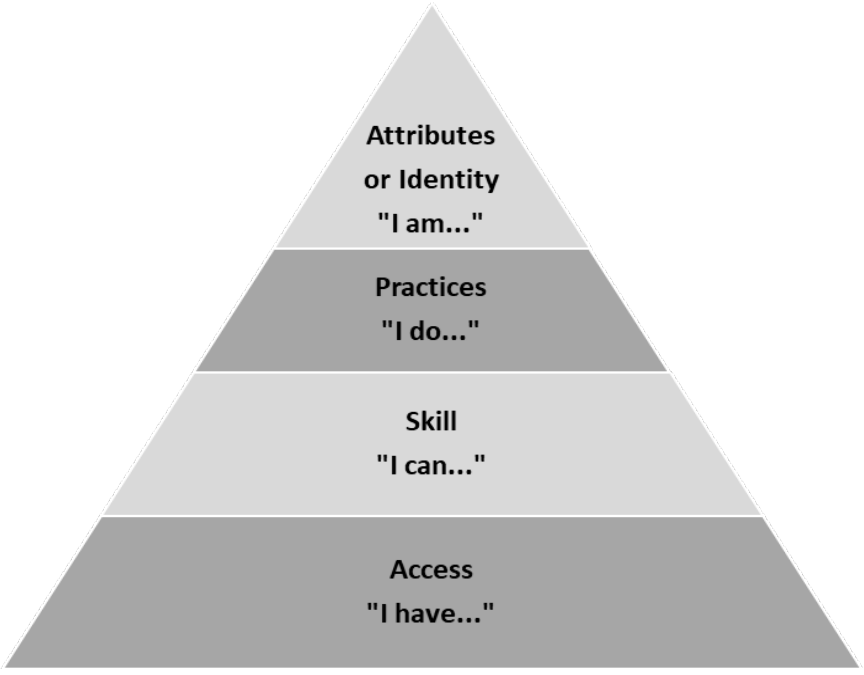
The basic element of the pyramid is access to technology; without access, technology cannot progress upward. The next level of the model is skill, which is built from experience with technology. Practices and attributes are the top levels of the pyramid approach. The practice level is the position in the hierarchy where users make choices regarding technology dependent on the need of the user or establishes their strategy or practice of implementing technology. At the

attribute level, the learner demonstrates confidence and is more willing to interact with technology to solve problems or facilitate learning opportunities.

The MDLTLD is not limited to achieving levels or steps. The theory considers digital literacy as a process the learner will engage in over time (Beetham & Sharpe, 2010). Learners are expected to gain a sense of identity by becoming digitally literate users and to apply their experiences to explore new technology situations with confidence (Bennett, 2014). Coldwell-Neilson and Cooper (2019) described the levels of the hierarchal pyramid model in terms of "I" statements. Access is "I have" and skill is "I can". Practice is "I do" and identity or attribute level is "I am". These "I" statements relate the levels of the model in more personal terms and are included in Figure 2.

Figure 2

Digital literacy and technology literacy dimensions



Note. Adapted from Dofkova, 2016.

Walker & Patel (2018) expanded on Bennett's work to further the understanding of how the user makes choices to implement technology, particularly as a user moves from acquiring digital skills to establishing a digital practice which is the third level of the hierarchy. They concluded in a position paper that to establish digital practice the user must value the use of technology as well as have agency or support to utilize technology. The progression from digital skill to digital practice to establishing a digital literacy identity is evidenced when the user begins to consider how to solve a problem or complete a task using technology rather than simply learning new digital skills (Bennett, 2014; Walker & Patel, 2018). Learners are considered to have an identity when considering digital options to solve problems or complete tasks if the options have a sense of normalcy or are developed without much consideration of other. This process is ongoing, and learners are expected to move among levels as new opportunities to implement technology occur (Bennett, 2014). The MDLTLD offers context to the process of learning about technology and achieving new digital skills as the learner moves toward establishing a digital identity that readily accepts technology into their personal and professional lives (Bennett, 2014; Walker & Patel, 2018).

Summary

The review of the literature resulted in a diverse body of knowledge synthesizing research in the field of academic advising, adult learning, technology acceptance, and digital literacy. The historical foundation and definition of academic advising, as well as advising technology utilization and professional development and training for advisors, are included in the review of the literature. The review found that technology has rapidly evolved and impacted our personal and professional experiences. The literature review also supported the thought that

higher education professionals, such as academic advisors, must accept and utilize technology to support student success.

A review of literature in the areas of Self-Directed Learning (SDL), Technology Acceptance Model (TAM), and the Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD) was included to explore how academic advisors perceive their process to learn about and accept technology into their advising practice. The emerging literature surrounding the COVID-19 pandemic, specifically the response of higher education and the advising community, provided an intriguing frame for this unique historical event.

Academic advising is a career field recognized and valued for its impact on student success and the reputation of higher education institutions. Advisors face challenges to stay abreast and utilize up-to-date technology to support students in course selection, career development, and personal challenges, particularly at institutions in which the technologies have not been used to support appointments for more than an in-person modality. The onset of the COVID-19 pandemic and the unprecedented abrupt pivot to a virtual appointment modality with previously unused technologies to support virtual appointments were expected to be put into place immediately. This study was conducted to explore how advisors transitioned to fully remote/virtual operations during the COVID-19 pivot. The study also explored how these advisors perceived they acquired technology skills and integrated technology into their advising practice. The findings of the study add to the advising and technology literature and tell the stories of the advisors at one institution who faced these fast-paced and unsettling challenges.

Chapter 3

Methods

This chapter focuses on the purpose of the study and the research questions and process. A conceptual framework and research method based on the literature review are outlined and a discussion of research design, participant recruitment, and participant selection follows. Informed consent, confidentiality, and the interview process are presented. The chapter concludes with an explanation of data analysis, assumptions, trustworthiness, and limitations of the research study, and an overall summary of the methods.

Purpose of the Study

The purpose of this case study was to explore how academic advisors at a large, four-year, R1 institution, who previously offered in-person services by default, transitioned to fully remote/virtual operations, how they perceived they acquired technology/digital skills, and adopted or integrated technology in undergraduate academic advising practices beginning in March 2020 and during the COVID-19 pandemic. The study explored technology acceptance and integration based on previous experience with advising technology as described by the participants. A case study approach was used to provide insight into the particular or specific experience of the case (Schwandt, 2015). This instrumental case study explored the self-described experiences of the academic advisors during the COVID-19 pivot and how academic advisors perceived they learned to use new technology and integrated the technology into their advising practice to support virtual work mandated by the university.

Research Questions

RQ1: How do academic advisors at a large four-year, R1 institution, who provided predominately in-person services prior to the COVID-19 pandemic, describe the experience of the required pivot from in-person to virtual student services?

RQ2: How do academic advisors in this case describe the use of technology in their academic advising practice prior to and during the COVID-19 pandemic?

Conceptual Framework

Established theories of adult learning, technology acceptance and utilization, and perception of digital literacy do not provide a single, focused viewpoint to explore the research questions of this study in the context of the specific case. A conceptual framework was used in this study to explore the perceived reality of the participants. This study was not designed or conducted to assert that one theory is correct or that any participant's practice is more, or less, correct than another. The conceptual framework was used to frame the participants' descriptions of their experience, technology utilization, and digital skills/ literacy as they worked through the required transition to virtual advising services during the COVID-19 pandemic. Self-Directed Learning (SDL), Technology Acceptance Model (TAM and TAM2), and the Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD) were used to frame the self-described experiences of the participants.

Self-Directed Learning

Self-Directed Learning (SDL) theory is attributed to Tough who, along with Knowles, proposed that learning takes place all around the learner much of the time when the learner is unaware (Tough, 1971). The foundation of SDL is Andragogy which proposes that adults use their collective experience as a resource, have a readiness to learn dependent on motivation, and

are focused on practical learning in which an immediate need is resolved (Knowles, 1975; Knowles, 1984; Merriam & Bierema, 2014). Knowles (1984), continuing to build on his theory of Andragogy and the concept of SDL, added that adult learners self-initiate learning opportunities to assess needs, set goals, identify resources, select strategies, and evaluate learning outcomes. SDL also assumes that learning is the responsibility of the learner (Brockett & Hiemstra, 1991). The theories of Andragogy and SDL provided a component of the framework used to explore participants' stories of transitioning to a virtual work environment and utilizing technology in this case study.

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a theory from the field of information systems that provided a framework for the acceptance and use of technology. Davis (1989) developed TAM and posited that users' willingness to utilize technology is based on five basic concepts: perceived usefulness (PU), perceived ease of use (PEU), attitude towards using the technology (ATT), behavioral intention (BI) and actual use of technology (AU) While Davis (1989) found ATT as impactful on the adoption of technology others have omitted ATT from the model in favor of a stronger reliance on BI. (Alshammari & Rosli, 2020; Shih, 2004). TAM2 was developed by Venkatesh and Davis (2020) and kept the basic concepts of PEU and PU but added the effect of social influence. As such, TAM2 asserts that users consider social influences, and that job relevance plays an important role in deciding to employ specific technologies in the workplace (Alshammari & Rosli, 2020).

In TAM, perceived usefulness is defined as the degree to which a person believes the technology is useful to a specific task or their job and perceived ease of use is defined as how easy the technology is to use (Davis, 1989). The theory posits that attitude plays a role in the

actual use of technology and that social influence, gender, and age might influence attitude, thus the actual use of technology (Davis, 1989). In this study, the basic TAM and TAM2 principles of PEU, PU, AU, and Job Relevance were used to explore academic advisors' acceptance and utilization of existing and new technology during the time period of the case.

Model of Digital Literacy and Technology Literacy Dimensions

The Model of Digital Literacy and Technology Literacy Dimensions **(**MDLTLD**)** is described as a hierarchical model (Sharpe & Beetham, 2010). The foundation of the pyramid is access. Skill is built upon access and is followed by practices and attributes. Once a learner reaches the level of attributes, the learner is expected to express confidence and be engaged with technology. With confidence and engagement, learners are expected to travel back down the pyramid to gain additional skills and practices thus increasing their digital or technology literacy and skills and establishing an identity of a digitally competent user.

Conceptual Framework Summary

Exploring the implementation of technology, in this case study of academic advising practice during the COVID-19 pivot, through the lens of Andragogy and SDL along with TAM, and MDLTLD provided a sense of structure to the participants' responses and perceived realities. The three theoretical models reference compatible and foundational components to form a conceptual framework used to support this case study:

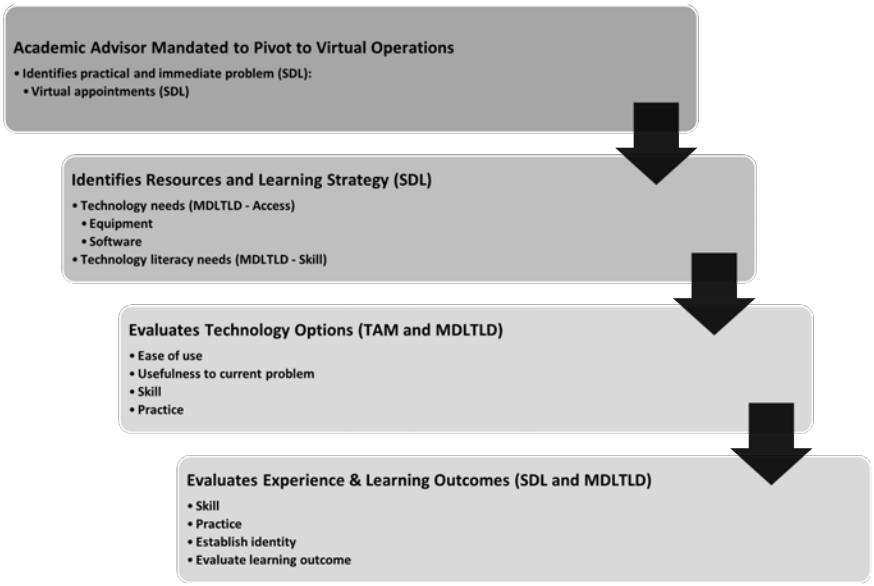
- Self-directed learning is dependent on motivation and is focused on resolving an immediate need (Knowles, 1980; Knowles, 1984; Merriam & Bierema, 2014).
- Technology acceptance is dependent on the perceived usefulness and ease of use of the technology. Acceptance is also dependent on the relevance of the technology to the user’s job (Davis, 1989).

- Learners build upon previous experiences with technology to increase skills and confidence in technology (Sharpe & Beetham, 2010).

It is anticipated that academic advisors in this case study will describe the pivot to virtual services and utilization of technology in terms that align with the conceptual framework created by the three theoretical models.

Figure 3

Conceptual framework overview.



Propositions

The fundamental proposition of this case study was that academic advisors are adult learners and employed adult learning and self-directed learning principles in their transition to a virtual work environment and their need to learn to use technology in their academic advising practice. Additionally, it was proposed that advising is enhanced by the use of technology and advisors implemented technology into their advising practice based on the perceived usefulness and perceived ease of use of the technology. Advisors were expected to describe self-motivation

behaviors, striving to solve a problem through practical means and express the need for additional learning and understanding. Academic advisors in this case were also expected to describe foundational digital and technology literacy skills, as well as their movement on the MDLTLD as skills, deepen and new skills are attempted. Finally, it was assumed that professional development is valued by academic advisors and the needs and preferences of the delivery modality of professional development differ among the advisors in this case.

Research Method

Case study is a method to provide an intensive description and analysis of a specific group or organization (Merriam, 1995). A case study approach requires the case to be bound in terms of time, population, and location (Merriam, 1998) and gives voice to the stories of the participants (Crabtree & Miller, 1999). In this case, the stories are unique constructions of the participants as they perceive their process to pivot during the COVID-19 pandemic. As the researcher, I also constructed my own perception of the participants' process to pivot as I analyzed the data and narrated their stories.

Case studies have three essential properties: particularistic, descriptive, and heuristic (Merriam, 1995, 1998). This case study was particularistic in the population, location, and timeframe of the case focusing on how a specific group of advisors navigated the process of pivoting to virtual services during the COVID-19 pandemic and confronted the challenges of the process. The study provided a rich description of the process of pivoting academic advising services in the face of the COVID-19 pandemic by documenting the experiences of the participants. The case met the criteria of being heuristic as it provided a voice to the advisors' experiences and helps others understand the process of pivoting from in-person advising services to a fully virtual environment and implementing additional technology into their advising

practice. In short, the case study gave a rich description to document the process of these specific advisors to help the reader understand their experiences more fully.

Constructivist Perspective

This case study was conducted, and the data was analyzed, from a constructivist perspective. A constructivist view assumes that a person's reality is self-constructed, dependent on the individual's perspective, and relative to others (Stake, 1995). Participants described their own perception of the process to transition to virtual work while experiencing the potential stress of personal changes and losing the structure provided by the familiar work environment. Each perception was expected to be unique and different, yet also be expressed in similar terms. Additionally, as I conducted interviews, analyzed data, and retold the participants' stories I, too, constructed an interpretation of their experiences.

Researcher Subjectivity

While the perceived realities of the participants were the focus of the case study, it must be acknowledged that the researcher becomes part of the research and data collection process (Merriam, 1988). My professional position and values were important to consider as they may potentially influenced the participants and the analysis of the data. I have been a professional in higher education for more than twenty years. More specifically, I was an academic advisor for thirteen years and have administered an advising technology platform for the past eight years. I highly value the work of academic advisors and the role they play in student success. I also value the use of technology to increase efficiency and accuracy in academic advising practice.

I have personally experienced the transition of advising practice of maintaining all notes and documentation in paper format in file folders and scheduling appointments by phone or a sign-up sheet posted on an office door to predominately using electronic folders, an online

appointment scheduling system, and having ready access to student records and data. Additionally, communication has changed as email and text communication have become commonplace in the advising practice. My personal experience of accepting and implementing technology into my professional practice provided a foundation to understand the culture and work environment of the participants, yet also created potential tension that I might impose my values and experience into their constructed personal experiences.

Additionally, my subjectivity was influenced by the value I place on the use of technology, particularly in academic advising. As a member of the Baby Boomer generation, it is generally expected that I would be resistant to technology and be considered a digital immigrant who is challenged to accept and implement technology into my daily work (Autry, 2011). Against that stereotype, my use of technology is robust, and I have strong digital literacy skills that I use to implement new technology into my daily professional work. My acceptance and implementation of technology require that I depend on my previous experiences and my identity as a self-directed learner (Davis, 1989).

My professional position and personal values regarding technology and adult learning, along with my personal pivot during the COVID-19 pandemic, influenced my approach to this case study and the findings. I was intentional to be reflective throughout the research process to not project my own experience and subjectivity onto the participants or their descriptions of their experiences. I kept a reflective journal throughout the study to provide a space to record my reflections and to work through my own experiences and potential subjectivity. My positionality and subjectivity are also explored in the Researcher Transformation included in Chapter 5.

Role of the Researcher

Not only is it important for the researcher to be aware of their subjectivity, but it is also important for the researcher to acknowledge their position within a study and to consider the impact their position has on the participants and data (Durdella, 2019). I am associated with academic advising at the post-secondary institution of this specific case. I am the administrator of an advising technology platform and interact frequently with the participants of the case study. I am not in a supervisory role for any member of this case, nor was this case specifically exploring the technology I manage. The purpose of this study was to explore how academic advisors transitioned to remote work, generally implemented technology into their advising practice, and how academic advisors in this case learned about technology and perceived to increase digital literacy skills. While I represent one of several advising technologies on campus, this study was designed to explore how academic advisors transitioned to virtual services, learned about technology overall, and implemented technology into their advising practice. I acknowledge my positionality in that academic advisors might have assumed I have a certain expectation regarding advising practice and the use of technology as well as a high degree of technology and digital literacy.

The Case

Baxter and Jack (2010) discuss the definition of the case or unit of study based on the work of Huberman and Miles (1994). In their work, they identified the unit of study or case as the phenomenon of study that occurs within a contextual boundary. The focused unit of analysis is defined as the case (Huberman & Miles, 1994). The case, or unit of study, in this research was the process of academic advisors pivoting to a virtual work environment and implementing technology to support their work during the COVID-19 pandemic. These academic advisors

previously provided advising services predominately in an in-person format, thus the pivot was a major shift in their normal process.

Case study research requires the case to be bound in time, place, and/or a physical boundary (Stake, 1995; Yin, 2018). In this case, the population and place were bound by the institution in which they work; a large four-year, land grant, R1 institution in the southeast United States with a decentralized advising model, as well as the time frame of the COVID-19 pandemic beginning in March 2020.

Participant Selection

The case population included academic advisors at a four-year institution in the southeastern United States who transitioned from an in-person work environment to/virtual work during the COVID-19 pandemic. Members of this case population also identified as utilizing some available advising technologies or being new to campus advising technologies prior to the COVID-19 pandemic and shift to a virtual environment. At a minimum, advisors in this case had not used videoconferencing as part of their typical advising sessions previously. Participants who indicated a desire to participate were asked to consider the time commitment for an interview session. There was no predetermined minimum or maximum number of participants set for this study. The goal for population selection was to have enough participants to provide a rich description of the case participants' experiences.

Context of the Study

There were no formal university policies mandating the use of advising technology at this institution, but an informal expectation of technology use was evident as training and professional development sessions regarding technology were offered regularly. Training opportunities were offered each semester for advising technologies utilized on campus.

Opportunities included the student information system, online degree audit platform, registration software, and a student success management system with appointment and note-taking functions. Training for multiple software programs was also offered regularly. The training opportunities were offered by university professionals as well as advising colleagues with a high level of experience. Additional training was offered through short presentations at the monthly advisor professional organization meetings. Records of attendance at formal technology training sessions beginning in March 2020 were collected as data. The presentation materials used in the training sessions during this time were gathered when possible as a source of data. The retroactive nature of this study limited the availability of these materials.

Participant Recruitment

Participants were recruited through an email for the participation of academic advisors at the institution fitting the criteria of this specific case. The email, Appendix B, was sent directly to the potential participants by the Director of University Advising. Participants received a general description of the purpose of the study and confirmation of IRB approval. The researcher answered questions regarding the research process and intent to use the data from the study. No compensation was offered for participation. It was anticipated that participants would gain an intrinsic benefit from contributing to the scholarship of their chosen career field.

Informed Consent and Confidentiality

Informed consent was a critical component of the research study process. Participants were informed that interviews would be recorded to allow for verbatim transcription and their words may be quoted in the dissertation or any future reporting of this research study. Participants were required to acknowledge their agreement to participate verbally at the beginning of the recorded interview session.

Confidentiality was maintained in multiple ways. First, participants were asked to identify a pseudonym to use in the reporting of findings in this research study. The list of pseudonyms was maintained in secure physical and digital locations. The physical copy was maintained in a locked location accessible by the researcher. The virtual copy was secured by a password-protected Box folder shared between the researcher and the chair of the dissertation committee. The pseudonym list was scheduled to be destroyed when all analysis is complete. The pseudonym was recorded on the verbatim transcription and was the only identifier used for all documentation, thus decreasing the opportunity to match the participant's real name and voice.

Data Collection

This study followed all requirements and guidance pertaining to research with human subjects from the Institutional Review Board (IRB) of the researcher's institution. Data was collected through one-on-one semi-structured interviews that were conducted and recorded using Zoom. A transcription of the recording was generated within the Zoom platform. The transcription was reviewed by the researcher until the researcher was confident the transcription was verbatim of the conversation between each participant and the researcher. The recordings and transcriptions were maintained on a password-protected computer. If printed transcriptions were generated, they were maintained in a secure location identified only by the pseudonym. All recordings and transcription versions will be deleted or shredded following the publication of this dissertation or any future research publication.

Interview Protocol

The interview protocol was designed to be semi-structured and completed in a single session. Questions were organized in domains and were general in nature to allow conversations

to move into topics brought up by the participants. Participants were offered the opportunity to decline to answer any specific question(s) or to withdraw from the study at any time without retribution or penalty though none of the participants did so. The interview protocol included domains of questions including how the participant came to be an academic advisor, a description of their typical day, and their perception of advising at the institution. Interview topics also included how the participants viewed technology overall in their lives and how they implemented technology into their advising practice. Additionally, the researcher asked the participants to describe their experience during the COVID-19 pivot including how they created a virtual workspace and structured their workday. Appendix C provides a list of potential questions within these domains.

Additional Data Sources

Additional data sources for the study were important to provide context for university-level support available to participants during the initial COVID-19 pivot and the subsequent remote or virtual work. The additional data sources also provided triangulation to the analysis, thus increasing the trustworthiness of the findings (Bridgen, 2017). Data sources beyond interviews with the participants included an archive of university communication related to COVID-19 and a comprehensive list of professional development sessions available to academic advisors and student services support staff during the initial COVID-19 pivot that started in the spring 2020 semester. The professional development sessions offered in the fall 2020 semester were also included as virtual advising continued to be the most common meeting modality on this campus during that time period. The additional data sources added trustworthiness related to the participants' perspectives.

University-level communication beginning with the mandate to cease in-person operations and the subsequent ongoing communication concerning general COVID-19 guidance and academic-related policies that evolved during the pandemic timeframe told a story of its own when read from beginning to end. This data provided a rich source of context for the COVID-19 pivot which was the focus of this case study.

The comprehensive list of available professional development sessions for academic advisors and other student support professionals was expected to provide a reference for the perceptions of the participants related to available resources during the COVID-19 pivot. This was particularly relevant for topics that supported the implementation of new technology and managing the transition to virtual advising. The list illustrated that support and learning opportunities were available to the participants beyond the initial time period of the pivot and extended into the fall semester.

The archived communication and the list of professional development opportunities were reviewed for themes evident in the participant interview data and a priori codes from the conceptual framework. These data sources were expected to support SDL concepts particularly related to motivation to learn and engaging in learning to solve an immediate need. The professional development opportunities were anticipated to provide information to the participants related to the usefulness and ease of use of advising technology. The data from these sources was mentioned by some of the participants. In some instances, the data supported the participants' description of their process of technology integration during the COVID-19 period.

Analysis of Data

Once the interview transcriptions were reviewed and viewed as verbatim representations of the participants' responses, the transcriptions were read as a single source of data for each

participant. The data were reviewed for emergent themes to categorize the experience of each participant as well as to determine if there were shared characteristics among the case population. The data were coded to identify the emergent themes noted during the initial read as well as the a priori categories identified in the conceptual framework. The professional development opportunities were reviewed similarly to the interview data to determine if the data aligned with the a priori themes or presented new themes in the analysis (Merriam, 1998).

A codebook was created for the data including all codes identified in the data as well as the a priori codes. A priori categories included concepts from the conceptual framework used in this case study.

A reflective audit trail was used throughout the process to provide additional analysis opportunities and reference back to themes and categories. This method required me to continue to return to the data as new codes were identified through the themes and categories. This process continued until all themes and categories were coded. Codes were reviewed to choose those that provided a rich description of the advisors' experiences during the COVID-19 pivot. A priori codes from the literature and emergent codes from the interview data are presented in Table 2. Through journaling and reflexivity, I worked to remain aware of my positionality in the research during the analysis process.

Table 2

A priori and Emergent Codes

Code Description	Code Type	Operational Definition	
Experience as a resource (MDLTLD)	a Priori		Use related experiences as resource to learn new skill (Beetham & Sharpe, 2011)

Engage in practical learning to solve an immediate need (SDL)	a Priori	Use resources such as videos, colleagues, and training opportunities (Knowles, 1975)
Self-initiated learning opportunities (SDL)	a Priori	Seek assistance without mandate (Knowles, 1975)
Perceived usefulness (TAM)	a Priori	What valued is gained and how useful is the technology to the user's tasks (Davis, 1989)
Perceived ease of use (TAM)	a Priori	How much effort will it take to use the technology (Davis, 1989)
Career Path Difference	Emergent	What path led advisor to their position
Chaotic	Emergent	Stressful, unorganized, confusing experience
Work/Life Balance	Emergent	The ability to manage to separate work and home responsibilities
Positive COVID-19 Pivot Experience	Emergent	The degree to which participants view changes during the pivot as positive

Assumptions

Assumptions in this case study included:

- The participants answered the interview questions to reflect their perceived reality.
- Technology is utilized and valued in the academic advising process.
- Advising technology enhances the quality and effectiveness of academic advising.
- Academic advisors acquire technology literacy and integrate technology into their advising practice differently.
- Professional development for technology is valued and advisors seek assistance as needed.

Trustworthiness and Rigor

Trustworthiness and rigor are markers of quality used in qualitative research (Merriam, 1988). Trustworthiness and rigor should be addressed in ways congruent with the philosophical assumptions of the study and the research questions being asked (Merriam, 1995). This case study was viewed from a constructivist perspective exploring the participants' experiences of pivoting from mainly in-person advising services to an exclusively virtual work environment during the COVID-19 pivot. To ensure this study achieved the specific task of the research questions and the findings represented the stories of the participants appropriately, methods to establish credibility and transferability were used as markers of trustworthiness and rigor.

Credibility

Schwandt (2015) describes credibility as the method the researcher uses to assure the readers the researcher's representation of the participants' stories fits the perception of the participant. Credibility was established using member checking and triangulation (Bridgen, 2017).

Member checking is a method used to validate the researcher's representation with the participant (Bridgen, 2017). Taking the story or data representation back to the participant to ask for confirmation of the representation supports the credibility of the case study findings (Merriam, 1988). Member checking was completed in this case study at least once in the data analysis process when tension between the interview transcription and the researcher's reflective journal became evident. The participant clarified the discrepancy, and the data was coded using the clarified transcription (Schwandt, 2015).

The focus of triangulation is to establish integrity by utilizing more than one view to explore or examine an assertion or conclusion in the case study (Schwandt, 2015). In this case

study multiple sources of data, including the participants' interviews, professional development training opportunities, and university-level communication were used to triangulate the data and to establish researcher credibility.

Transferability

While generalizations should not be made from a constructivist case study, transferability is thought to be possible (Schwandt, 2015). Transferability is further discussed by Schwandt in terms of work conducted by Lincoln and Guba (1985). Schwandt (2015) posits that transferability is the responsibility of the reader, not the researcher. The researcher's responsibility is to provide a detailed or rich enough description of the case study parameters so the reader can determine if the case parameters are similar enough for the findings to be relevant and thus transferable, to their specific situation.

In this case study, I have provided a rich description of the case population, their perceived experiences of the pivot, and a description of the COVID-19 protocols at the institution. Additionally, the participants' physical work environment, advising session process, and the professional development opportunities/support available during the pandemic provided a rich context of the study. While the researcher has offered suggestions for transferability, readers will be able to determine the transferability of the findings of this case study considering this rich description.

Limitations

The limitations to this qualitative study include that the findings are not generalizable but might be transferable to similar situations (Lincoln & Guba, 1985; Schwandt, 2015; Stake, 1995; Yin, 2018). Some might consider this to be a limitation, but the case study research method produced a rich description and documentation of the participants' experiences during a unique

time-period. Administrators of advising services might review this study to determine if the case parameters fit well enough and if the results are transferable to their specific situation (Merriam & Tisdell, 2016). An advising administrator cannot assume that all advisors will describe their technology acceptance and technology integration in the same way. Additionally, due to the professional relationship of the researcher with the participants, participants may have limited their responses to align with their perception of the researcher's position. This is particularly a concern regarding the specific advising technology the researcher manages.

Summary

Chapter 3 describes the research process for this case study. Participants were recruited for this case study from a purposely selected population and one-on-one semi-structured interviews were conducted to explore the participants' perceptions of their transition to virtual advising services, the adoption of technology into their advising practice, and how they learned about technology to increase digital literacy. The resulting data were analyzed to determine if the participants' self-perceptions evidenced principles from SDL, TAM, and the Model of Digital Literacy Dimensions. Most importantly, the stories of the study participants' experiences in the COVID-19 pivot have been documented.

Chapter 4

Findings

This chapter focuses on the findings of the study. The purpose of the study and research questions are presented, and the specifics of the case are outlined. The case is presented beginning with a brief introduction of the participants. The perspectives of the participants' advising experiences prior to the onset of COVID-19, as well as during the pivot and the resulting COVID-19 pandemic are narrated using the participants' own words. University-level communication and support related to COVID-19 are provided to further define the case of the research study. Advisor professional development opportunities during the COVID-19 timeframe are outlined. This chapter is intended to present the personal story, or narrative, of the COVID-19 pivot as described by the participants using their own thoughts and words. The narrative includes elements of their personal journeys related to becoming and serving as an advisor and their thoughts and motivations related to technology. The narrative is followed by a thematic analysis of the findings. Interpretation of the findings is presented in Chapter 5.

Purpose of the Study

The purpose of this case study was to explore how academic advisors at a large, four-year, R1 institution, who previously offered predominately in-person services, pivoted to fully remote/virtual operations, acquired technology/digital skills, and adopted or integrated technology in undergraduate academic advising practices beginning in March 2020 and subsequently through the COVID-19 pandemic. The study explored technology acceptance and integration based on immediate needs, previous technology experiences, and motivation to utilize technology. A case study was used to provide insight into the COVID-19 pivot experience

of the participants. The study also explored the communication and actions of the university to support staff during this transition and the following period of remote/virtual work.

Research Questions

RQ1: How do academic advisors at a large four-year, R1 institution, who provided predominately in-person services prior to the COVID-19 pandemic, describe the experience of the required pivot from in-person to virtual student services?

RQ2: How do academic advisors in this case describe the use of technology in their academic advising practice prior to and during the COVID-19 pandemic?

The Case

The case, or unit of study, for this research was the transition or pivot to virtual advising and student services in response to state and federal mandates for all institutions to cease in-person activities due to the COVID-19 outbreak. While the COVID-19 outbreak was the primary topic of daily news and the expectation of pandemic-level cases was being predicted, the dramatic shift and transition occurred quickly without much time for preparation. The university, which offered predominately in-person classes and student services, announced a mandate to move to all virtual services on March 16, 2020, effective at the end of the following day. While the university focused quickly on the transition of academic courses and communication with faculty and students, student services offices were challenged to communicate with advisors regarding how to provide advising services in a time that was chaotic, both professionally and personally. Advisors on this campus previously worked almost exclusively from on-campus offices and found they needed to set up home office spaces to facilitate virtual services. Many advisors moved university owned computer equipment to their homes to support their home offices while navigating something they had never experienced previously, a pandemic and

federal orders to shelter in place. Some participants told stories of setting up offices in bedrooms or dining rooms while balancing the needs of children who were suddenly thrust into a virtual school environment and isolated from friends and extracurricular activities. Stories also included sharing space and balancing the needs of other adults working from home. Advisors related concerns about maintaining confidentiality during student appointments. Not only were they juggling their own personal needs, but advisors reported being bombarded with questions from students and parents to which they truly did not have answers. As noted in the advising literature review, advisors are often the first university professionals a student will reach out to for assistance and guidance, thus advisors found themselves trying to answer questions like how long the mandate would last, how to navigate online coursework without internet access, and how university housing and dining plans would be managed. Answers to these questions were not readily available as decisions were being made, and communication strategies were being developed, by the university moment by moment of a developing pandemic situation. This added to the overall level of stress of the participants and the chaotic feel of the transition and COVID-19 pivot. How advisors navigated the pivot to virtual services and what they learned from the experience was the focus of this study.

Participants

Participants in this study included seven professional academic advisors or student services coordinators who were employed in roles that provided advising and support for undergraduate students during the COVID-19 pivot. Recruitment to participate in the research study was managed by the Director of University Advising per the approved IRB protocol for this study. The participants were informed of the opportunity to participate through an email sent to advisors and student services coordinators who met the study criteria. Volunteers were

directed to contact the researcher to schedule a Zoom meeting to participate. Prior to the interview, the researcher asked participants to select a pseudonym to provide confidentiality and to protect their identity. The participants had varied experience in terms of college/office of employment, length of time as an advisor/student services coordinator, advising style, and individual interests, but all served undergraduate students in common academic advising tasks such as major/career selection, course planning, and related academic or personal concerns.

The participants seemed eager to share their stories of navigating the COVID-19 pivot and subsequent pandemic as they responded quickly to the call for participation. The stories, shared in semi-structured interviews, included their path to becoming an academic advisor or student services coordinator along with their advising practices prior to COVID-19. The advisors' stories related to how they adapted to virtual advising following the dramatic shift on March 16, 2020, when they were mandated to change all student services to a virtual modality. Participants also talked about how they felt supported, or not, and how they worked to assist the students assigned to them with both academic and personal concerns. The participants' attitudes regarding technology and their motivation to learn and use technology were woven throughout the participants' stories as well.

Hobie

Hobie transitioned from a student services area other than advising to an academic advising office as the COVID-19 pivot began. Hobie exhibited a high level of energy and excitement when describing advising and working with students. He talked about how after serving in several other student services positions, he felt this was the perfect higher education position for him. He stated that being an advisor was a good fit and supported his desire to help students become more self-sufficient and less dependent on advisors and the institution as related

to basic academic needs. Hobie said he embraced the pivot as an opportunity to utilize available resources and to define his advising practice to foster a sense of greater independence in his student population.

Mary

Mary described several positions she has held in advising over her tenure of more than twenty years in higher education. Her perception of the pivot and subsequent pandemic was that it was an "extraordinary time" that provided an opportunity to accept change and consider new ways of providing advising services. Mary related that in retrospect she thought the overall outcome of the COVID-19 pivot was positive as she became more willing to adapt and accept change. Mary stated she has experienced many different technology platforms on campus but did not particularly like technology in general. Mary described how she was able to set aside her general distrust of something new and felt a "freedom to fail" during the COVID-19 pandemic. Mary conveyed she viewed this time as an opportunity and approached it with a "bring it on" attitude. Mary talked about how she had worked previously to achieve a good work/home balance and the pivot experience blurred those lines as her personal situation afforded her more time to focus on her work and helping students as she was not able to pursue other interests outside of her home.

Novice

When asked to describe her experience during the pivot, Novice asked, "You mean after I freaked out?" Novice indicated the pseudonym she chose for the study might be indicative of how she viewed her identity related to technology and her confidence level as she worked through the COVID-19 pivot. Novice stated she has worked in advising for seventeen years and talked about how her advising practice prior to COVID-19 consisted mainly of paper folders to

maintain student records and printed handouts to provide information to students. She mentioned she was just beginning to use some advising technology such as DegreeWorks and the campus student success management system prior to the pivot. Novice stated she did not view herself as "tech savvy" or competent with technology prior to the COVID-19 pivot. As an example, Novice stated she had never taken a "selfie" prior to the COVID-19 pivot nor was she adept at texting. While Novice mentioned she did not like technology in general, she stated that she realized it was "amazing" in that it provided ways to communicate face-to-face and maintain shareable student records.

Olivia

Olivia has worked seven years as an academic advisor though she had other experiences in the higher education setting. Olivia discussed how she viewed technology as a tool and expressed that when others were reluctant to implement new technology it created challenges for an office. Olivia indicated a lengthy list of technologies she used in advising prior to the pivot and how they became more important when she transitioned to all virtual appointments. Olivia talked about ways she used DegreeWorks, Banner, Kahoot, and the campus student success management system in her advising process. Olivia said she did not view herself as an expert related to technology but was certainly willing to explore and try new technology when needed.

Shannon

Shannon described herself as less experienced in advising than some of her colleagues, but indicated she had experience in other higher education areas that were related to advising. Shannon said she had a "healthy respect" for technology but had never used the video-sharing technologies needed to host virtual appointments. When asked to describe the pivot experience she used words like survival, bittersweet, and unorganized, but also stated that she thrived and

learned to “figure out stuff” during the experience. Shannon also talked about how she felt as though she lost her “professional self” while working from home and has worked to restore that since she returned to campus.

Lauren

Lauren described herself as an experienced advisor/student services professional who, unlike many her age, embraced technology to “build bridges and remove barriers.” Lauren described her transition to a home office as seamless and easy. Lauren explained that her personal life motto was “If you stop learning, you stop growing, and then you stop living.” Lauren embraced this mindset as she pursued certifications in specific technologies during the COVID-19 pandemic she believed would benefit her new virtual/in-person hybrid approach to academic advising. Lauren found ways to be more accessible to her students during the COVID-19 pivot, but also created time to focus on her own well-being through routine exercise.

Shaun

Shaun has worked in several student services areas in his higher education career and readily admitted he genuinely likes technology. He stated that his advising process did not change much during the pivot and pandemic other than the means to host an appointment and share information with his students. Shaun talked about how he felt the need to be consistent during the pivot and subsequent pandemic as students seemed to be “checked out” and everyone seemed to be more focused on the technology process than the advising process. Shaun shared that he believes it was easy to lose the human connection while using technology to host appointments, but believed students should be given a choice of appointment modality when possible in the future.

The Participants' Perspectives

In semi-structured interviews, participants were asked to describe how they became an academic advisor or student services coordinator and their experience to pivot to virtual advising services. Participants were also asked to describe their experience of providing advising services throughout the COVID-19 pandemic. Participants were encouraged to talk about their perspective regarding technology in general, and more specifically, how they were motivated to integrate technology into their advising practice both prior to and during the COVID-19 pivot. The narration of their stories is provided by using the participants' own words from the interview transcripts.

Advising Career Choice

The participants discussed their path to become an academic advisor and a common theme developed as no one initially planned to become an academic advisor. As one participant said, "There isn't a major for that." Some of the participants had experienced a career change from public education like Mary and Shaun.

Mary recounted her experience of seeking a job and accidentally finding her advising career.

> I found a job announcement for an academic advisor for a department. I was reading the description for the job. I thought, well that's just cool. I could do that. My background is secondary education. I had always wanted to teach juniors and seniors in high school. I had been a graduate teaching assistant for a freshman-level class for a couple of years and enjoyed working with freshmen. and I just thought I could. you know, continue to work with students in an educational setting, and it just appealed to me. I had no idea that it was really a career. I'm glad that I found it accidentally.

Shaun described his path to becoming an academic advisor in terms of a journey through higher education and secondary education experiences that ultimately led him to academic advising and student services.

> I worked in student affairs and residence life throughout my undergraduate and graduate career. I was an education major and did teach in K-12, but always really enjoyed working with college students… so I transitioned over to advising… and I work with advising and doing a little bit of teaching, really kind of couldn't ask for anything better. Getting to do both, so it was really a great fit for me.

Novice was not currently employed when she was asked to assist an academic program and provide support for students in her specific area of expertise. This opportunity provided a path to academic advising as a career for Novice.

> There was a faculty meeting where my husband was, and they were talking about the fact that they had really low undergraduate numbers and they really needed someone to get that program going. They wanted someone with a background in the subject, a background in education and liked to talk. And my husband said literally everyone turned around and looked at him. It just kind of morphed into this. So that was the beginning of it. I have a background in that subject and a master's in education, and I obviously like to talk.

Other participants realized an interest in advising based on personal experiences while completing undergraduate degrees in unrelated fields.

Shannon described her career development path to becoming an academic advisor as non-traditional.

> I graduated with an elementary education bachelor's degree. During my student teaching experience, I just really realized that I was in the right field, but wrong major. Of course, it was the last semester of my undergraduate career. So, I was graduating, I mean, no matter… what I was graduating, and I knew that I had to have a job. I got a job as a warehouse worker and knew I needed time to figure out what I wanted to do. I attended a graduate career fair, and a (redacted) department was there accepting resumes. I didn't say, "Hi, hello! My name is…" nothing. I just gave them my resume. I got the job and that started me working with students. I loved every minute of it. I knew that's where I wanted to be.

Oliva stated that while she was an undergraduate student, "I realized that what I really wanted to do was work in higher education, and I realized that through participating in freshman orientation, being a leader in that. But I knew that there wasn't really an undergraduate degree program that would get me there, so I just needed to graduate." Olivia continued to discuss her

path to become an academic advisor as she worked in other student services positions prior to her first advising position.

> I took some TES temporary employment positions on campus and applied to everything I thought I might be qualified for and then finally got on as a recruiter. Eventually that transitioned to being a full-time advisor and loved doing that work and connecting with students and getting them plugged into resources that are going to make a difference in their undergraduate experience.

Additionally, some participants worked in related higher education positions prior to becoming an advisor but discovered academic advising more closely fit their career goals.

Hobie talked about how he had worked in several different offices on campus but found satisfaction in advising.

> Well, it's been the happiest I've ever been in my career that's for sure. I was all over campus for over a decade in some other roles and academic advising seemed to be what my career was heading towards. I loved working with students so getting in a more direct role was always the goal.

Lauren replied to the question about becoming an academic advisor after working as a guidance counselor and moving to a location with opportunities at the local college.

> A friend of mine who worked in the school system had suggested that I try transitioning into the school system and using my skill set there as a guidance counselor. After many years of doing that, there was an opportunity to move into higher education through the state college system. My family had another move and brought us to this to this area. I started looking for positions at the university where I could utilize my skill set and one happened to open in advising.

The participants all expressed that they found their niche in higher education through an indirect path and enjoyed helping students mature and succeed. The participants also consistently expressed satisfaction with their career choice and current positions.

COVID-19 Pivot

The emergence of COVID-19 in the United States and the subsequent declaration of a global pandemic caused the university to cease all in-person activities including classes and

student services in March 2020. The participants described this event as chaotic, scary, terrible, and generally as a time like none they had ever experienced. Advisors were mandated to work virtually from their homes and quickly realized that remote work would be the norm for the foreseeable future. This realization forced advisors to quickly consider their technology needs to host virtual advising appointments and where or to whom to reach out for assistance. Advisors discussed that changes were evident not only related to the medium to host virtual appointments, but also in the focus of the appointments and the needs of students. Work/Life balance became a concern in new ways for the participants. Advisors and student service coordinators shared their pivot experience of pivoting and how they provided services throughout the mandated remote work timeframe.

Realization of the Mandate

The mandate for virtual work on this campus was described as abrupt, scary, and surprising. The mandate was announced as the university Spring Break was ending, but prior to students returning to campus. Participants mentioned they were taken off guard by the unprecedented mandate and felt unprepared to offer guidance and stability to their students. At least two of the participants were away from campus on Spring Break trips with students.

Mary stated she received some basic guidance from her college-level IT office prior to leaving campus.

> We had our little information orientation session from our IT people, and I got my laptop to take home. Then we just kind of got busy with Zoom. Our director for advising for our unit was very much ahead of time. She kind of saw things headed that way and had ordered PPE and started, you know, talking and trying to get things set up so that our people could be supported. They've always been supportive of the director and trying different things with advising in this unit. So, we started having a Zoom session every day with the advisors in our unit and just some talking through things, making sure it was okay.

Shaun expressed a feeling of unpreparedness as he transitioned to an at-home work environment.

> So, we, we were definitely a little bit under prepared for that. I guess everybody was. We tried to as a team kind of have a common method of how we were going to connect with students and looking back, you know, it didn't really make a whole lot of sense.

Shannon was on a Spring Break trip with a group of students and discussed how she experienced a paradox of sorts. As the trip ended and they were prepared to return to campus, she helped students process the implications of closing campus. Even so, she felt the need to be on campus to utilize technology resources until her supervisor told her she must work from home.

> So, we were notified that we were doing that we were going back home. I guess that's the best way to put it. I was on a spring break trip with students and we got the email. The students saw what the email said, “Oh, my gosh! They canceled classes!” They were so excited, and I pulled up my email and I was like, “Oh, no, this is not good” and they said, “Oh, this is great” because they were thinking it was going to be an extended spring break and I was like, “This is a mess y'all. This isn't just an extended spring break. Right? This is bad.”
>
> So, we get home and by that point I think that students kind of realized by my reaction, You know, I mean I'm trying to keep it together from the perspective of they start asking me questions. I can't exactly remember, I guess, when I had the reaction of this just isn't it going to be another week? They were like, “Well, how long is it gonna last? When are we coming back? What are we going to do?” And “I'm like I don't know.”
>
> And so actually, on the sixteenth, I came into work. I didn't have a department laptop so I just kinda was like I'll just go in. and my supervisor got in touch with me, but they were like. “Listen. No. Go home.”

Like Shannon, Hobie was also away on a Spring Break trip with students when he received the news of campus closing.

> I'm then in you know everyone's having their meetings, and mine started because of advising a fraternity. It's always in these meetings trying to you know. Listen, and find out what's going on. Get updates and stuff like that, and I’m like we're about to shut down, You know. It's about to happen like we're shutting down, and everyone you know we're in denial on it so like that. And then the dorms get shut down and I'm dealing with

> students who are having, you know, basically mental break downs and crying because they're like we don't have a place to go back to.
>
> And I was like hold on. So, I'm calling the vice president for student affairs, you know, like, hey? I know you're dealing with a lot. But please, please tell me, because housing said, hey, we're shut down. You can't come back. I'm like, okay. Housing said this. We cannot just not let students back into their like. We're not going to do that right. Of course, the vice president is like No, we're definitely not going to leave a student without a place to live, and all that. That's what I thought I was like, but we need to, you know, change it. So that's what I was dealing with on that.
>
> So, I come back, and luckily, the kind of way our office was set up… \So, we were already kind of equipped to go to this, which was pretty cool. You know my supervisor at the time we talked, and I was like, hey, we're already like set up to do this right? And he was like, yeah, I was like, so we're just gonna continue working.

What Do I Need?

Mary expressed that she needed technology resources that started with a computer and the physical components to work remotely. Once she obtained a laptop then she addressed technology needs such as software and technology platforms to work remotely.

> I did not have a laptop. I had a desktop and I did not work at home before. You know, I work at work and sometimes, you know, if I needed to catch up I would come into work, stay late, or come in on the weekend, but it was work at work leading up to that day. We got word from our IT people in our unit and they we're issuing laptops and we were to come in and kind of do a little bit of a hey, what programs we've got on the laptop. And this is what kind of what we're thinking of using, you know, Zoom. I had never used Zoom before.

Unlike some of the other participants, Shaun stated that he did not have many immediate physical needs to be able to transition to remote work.

> I was all good. I already had a laptop. I worked from the kitchen table or outside if more privacy was needed.

Shannon and Lauren depended on a spouse to help them know what equipment they needed. Shannon talked about her dependence on her spouse who works in the information technology field to understand what devices and software she needed.

> And so, my husband, who's in IT you know, kind of set me up on my personal laptop so that I could do my job. And then so you know that's when they came back and said, no, we need to be using a university computer. So, at that point I contacted, you know, College of REDACTED Technology for it, and I got a computer from them. And so but that was over I think probably a two week process. In the meantime, I was emailing students. I was changing students from in-person appointments, and I never used Zoom before that except in like interviews, you know. I mean I had. I had used it, but just sparingly. It was not a part of my daily work and I actually tried to use Teams for meetings, but my students were really confused, but to me it made the most sense because it linked up with my calendar. But it really confused my students, I guess, because they automatically know what to say. And so we went to Zoom.
>
> My husband was actually working from home, and had been working from home for years, and so I had somebody that had done it and so he immediately was like, okay, we need to get you set up. So, he kind of knew what it was like, what I needed to do in order to be able to really be successful from feeling like I had a space to go to and actively get work done instead of doing it from bed, which is what I was doing.

Lauren also mentioned that she benefitted from her husband's remote work experience and how she used his home office for her appointments.

> My husband works from home and knew exactly what I needed. He had an office already set up and I used that most of the time. My husband moved to the dining room because his stuff is not as confidential as mine. He gave me the upstairs office where I could close things off, and you know, I had my headset there. I was learning how to use the headset.

Hobie discussed that while he felt prepared with equipment and technology, he suspected this wasn't the case for everyone.

> One thing I wish the university would have done more in that time is support people doing that (securing laptops of computer equipment), but I feel like for my office. I was fine. I was, you know, fortunate enough to have, you know, an extra bedroom at our house, and you know, get that going, and so I had a place to work and but I imagine, for a lot of people that was probably more difficult. But so, I think that was probably the biggest part of my pivot was trying to get the home office set up.

Olivia's experience of obtaining equipment and to set up a home office included documentation from her college and assessing the resources she needed to work at home in a similar way as in the office.

> So, the first thing I did was figure out how to get my computer from my office to my house, and I'm pretty sure there was a form we had to fill out, just documented what we

> were taking, and you know, I think we maybe had to sign something that said, we would bring it back. You know it was still the university's computer. That's a little fuzzy, but I know I filled out whatever paperwork was needed.
>
> I also printed off a copy of the curriculum sheets and laminated them and put them all in a binder for all my majors, and every year, you know, I had at that point, and so I brought that with me, so that I could highlight and then clean off, you know, curriculum sheets to be able to share those with students.
>
> So, my college has their own IT group and so I know they sent a lot of emails, you know, with steps.
>
> And then our college group of advisors used Teams to communicate. I mean pretty much constantly. And so, we would also help each other with troubleshooting different technology things.

Novice described her initial reaction to the mandate and the actions she took to retrieve the equipment she needed. Like other participants, Novice indicated her college information technology group was helpful in deciding what she needed to work from home.

> After I freaked out? Well, I am not known to be tech savvy because at that point in time I had never texted. I had never done a selfie. I had never done anything like that. I don't even know that I ever really used Zoom. We use some type of video sharing, and you know, for an occasional meeting to bring somebody in remotely. But I came to the office. I got all of my computers. I had to get my 2 screens from my office and my computer, and my printer and I took it home.
>
> I was very grateful to the University and the support that they provided. I remember getting from our IT group some training videos. They were okay with bringing everything home that you need. Here, fill out this piece of paper. Just let me know what you're taking and bring it back trusting that we were going to do the right thing and not making us jump through a bunch of hoops to do our job at home. You need a laptop. All right. Here's a laptop.

How Long Will We Work Remotely?

As participants set up home offices, they also considered how long they might be mandated to work remotely. Participants secured the equipment needed to set up space but were challenged with the uncertainty of how long the mandate to remote work would last. They related this was genuinely an unprecedented event. Participants wondered if they should buy

office furniture, restructure guest rooms, or if they should find remote space outside of their own homes.

Novice set up her home office with the university equipment she had retrieved but wondered if she should purchase a new desk to make her area similar to her campus work environment.

> And then, whenever we did decide to stay home, like I ordered a new desk, thinking I am probably spending, you know a $100 or whatever I spent on the desk just to be home for a month or so. That turned out to be a year and a half for me.

Olivia was challenged to create an at-home work environment and to balance the needs of young children and a spouse.

> Initially, I actually worked from my parents' house because I had three very small children. Only one was in school at that time and so it was tricky for me to be at home and try to get stuff done. So, for the first couple of weeks I worked from my parents' house. You know, in a room by myself and then as we realized it was going to extend beyond just a couple of weeks I transitioned back to my house and set up an area kind of out of the way where I could have my laptop and computer and all my curriculum sheets and things set up.
>
> And we I did have to put up a sign, you know, for my kids that said like ‘Don't, stop Moms working to kind of try and keep them away. But you know, sometimes they would kinda sneak in and be there for appointments.

Where Can I Find Help?

Participants continued their stories of securing equipment and creating home offices and said the realization the mandate and remote work would last more than a few weeks set in quickly. The participants mentioned their main concern was not in the content of the advising meetings, but in how to host meetings virtually. Some participants said they realized they needed support with how to use videoconferencing software, a virtual private network (VPN), or other technology software. Several participants sought assistance and support from the IT office within their college. Others indicated they watched YouTube videos or depended on their spouses. Two

participants indicated they felt prepared to transition to virtual advising without much technological support.

Shaun, Novice, Mary, and Lauren specifically acknowledged the efforts of their college IT office for providing strong support and being available to support the staff remotely. Novice expressed that she depended on the college IT group to make recommendations concerning the technology she would need. Novice also commented on what she viewed as the irony of the IT group who used technology to teach her how to use technology.

> You know you need this and then making recommendations of what they thought I needed, and how to set up at home. and how to do that where normally you would have somebody walk over and do that for you. Now they were helping me do that at home. I would never have been able to do it without the support that I got from my college. And then in using it once I got comfortable.
>
> But providing that equipment. Being able to have them log into my computer remotely and fix whatever issue I had or to show me what was going on. You know or to even show how to do something. You know, using technology to show me how to use technology. That was pretty ironic in doing that, and so very grateful to this university or at least my area, my college IT for how they helped us. I mean they never blinked once.

Shannon referred to depending on her husband for support several times while she told her story of pivoting to virtual advising.

> And there was a couple of emails that I had to set up. Oh, what is that company called that allows us to access our drives on campus, the VPN. Yeah, he was able to do that. If it had been me, I wouldn't have been able to do it and, but we downloaded his VPN on my computer.

Changes to Advising

While advising changed to a virtual modality, participants stated that the structure of the appointment did not change much after they learned how to use Zoom. They talked about how, while there were technology challenges, they found it easier to share certain information with their students on Zoom than it had been in-person. Several advisors found that they were more focused on advising processes and academic policies that were changing in response to the

transition of classes to virtual instruction than projects they were working on prior to the pivot. Participants talked about how many students presented with different needs than before, and priority was placed on caring for one another and making appropriate mental health and campus food pantry referrals. The participants related that advising became more personal than ever before. Advisors and students alike seemed to genuinely care about the well-being of each other. In response to the changing needs of students some advisors created technology-based resources to support their virtual work and some were available to meet with students during non-traditional work hours.

Zoom

Most participants talked about how they had never used Zoom or Teams to attend a meeting or host an appointment and the learning curve was steep for several. Advisors watched YouTube videos to learn to use Zoom and practiced with colleagues and family members.

Novice's reflection included how she needed to gain confidence with Zoom before attempting to have an appointment with a student. She also recounted that her office practiced with each other to gain experience and learn about the features of the technology platform.

> We practiced with colleagues and family whenever we got some instructions about how we were gonna try and continue to meet with students via Zoom. I looked up everything I could on Zoom. I had my child show me how to use Zoom and started practicing. And I remember the first student. It was the student's first time using Zoom, and it was my first-time using Zoom. And so, we kind of figured it out together.
> We actually practiced on a couple of the advisors. We kind of practiced together. We did some group meetings and figured out how to share screens together and there is a chat function. So, I would say it probably took me a good two weeks before I felt like I could really somewhat be confident in doing it.

> Of course, every single meeting started off with "your muted". It still happens to this day obviously. But watching whatever I could, and it wasn't necessarily things that the university sent out. I think it was just trying to figure out the platform, probably watching YouTube video or to and trying to do that.

Olivia reflected on the transition to virtual advising and how she felt as though she stared at a screen all day. She related that in addition to learning how to use videoconferencing, the necessity to schedule everything, even a quick question, was challenging.

> So, my day was mostly spent staring at a screen and on Zoom appointments. I don't know if the appointments just weren't as long when they were online. You know we were kind of at that over saturated of screens point, but I don't feel like my days were back-to-back to back like they were in-person, you know. People couldn't just stop by your office or say, hey, or drop in with a quick question, because everything had to be scheduled over Zoom. I had never done virtual appointments before, so it was an adjustment, but we mostly figured it out. I feel like there was always a little bit of a learning curve with connection or volume or cameras not working, screens not sharing. You know there was always something.

Mary added drop-in advising options through Zoom and found it was a great way to stay connected with her colleagues as they shared the Zoom room.

> And so we just tried to figure out how we could communicate with students knowing they hate email and you know without bombarding them with all kinds of stuff that they're having to deal with, too. So, we instituted a daily Zoom room… like a drop in Zoom. Students can just drop in and ask whatever questions. Anybody can drop in… like a parent. Somebody interested in the department, somebody else from on campus. And then we also would do a weekly email to the students saying, "Okay, this is what's going on Here's our drop-in zoom session. Please join if you've got questions or concerns. Do you have any problems?" You know just making sure they knew that we are still here.

Change of Focus

The participants also talked about how their professional focus changed. Participants' stories included heartfelt reflections on how most sessions became more about life and caring for others than on academic issues. Some of the participants were deeply reflective and displayed emotion during the interviews as they told stories of redirecting their focus from being academically focused and project-driven to addressing the most pressing needs of students. The participants reflected on the change in focus mainly in positive terms.

Shannon said she always had a project in process before the pandemic, but the COVID-19 pandemic forced her to think more in the present. She shared that her energies were focused on the tasks that needed immediate attention during the pivot.

> I feel like my job was more purposeful before the pandemic than it is now… in a negative way. But my expectations changed in COVID and I have not been able to recover from that if that makes sense. Before, it was much more future focused, rather than now focused. It was much more like we are going to build a program. We are going to work with students on not just preparing for careers, but actually understanding classroom expectations in college. That's always been an interest of mine and really seeing if I could provide support that wasn't subject specific but academic performance specific.

Mary continued with the same theme of focusing on immediate needs when she described her approach to her work in the moment as more important than for the future. Mary and Novice both nudged students more to talk about how they were doing personally and not just academically. Lauren indicated she also focused on mental health issues more than she did prior to the COVID-19 pivot.

Olivia offered that she believed that she and her colleagues began to see each other as people first rather than just colleagues.

> …and so you know, I think we all maybe saw each other as people instead of co-workers, which is not necessarily a bad thing

Changing Needs of Students

Shannon, Mary, Lauren, Hobie, Olivia, and Novice mentioned that advising became more personal than before. Caring about and checking on one another was much more important than registration. Mary, Novice, and Olivia talked about starting a meeting with “How are you” and “How is your family doing?” When students would respond with the typical, “I am fine” they pushed a bit more to make sure students knew they really wanted to know. Novice talked about being able to see students cry over Zoom and Mary talked about following up with certain

students weekly. Novice also indicated students checked on her as often as she checked on them. Lauren talked about the grieving process that students went through as they navigated the COVID-19 pivot.

Mary related that she was strong in her questioning students about their well-being at the onset of an advising session.

> I think, I mean, I've always checked in with the student kind of how they're doing. But honestly during Covid and that time of advising my first question to every student was, "How are you"? Not like, "Hey. How's the day?" You know like, "How are you today? Are you okay? Are you? Are you?" I mean, I honestly would ask that question and then we would go from there because if they were not okay, we've got to get through that today. So, I would check in with them later sometimes. They just wanted to talk about it and then they were fine. Then we would carry on with the normal checklist of things for the next semester and other times it was what services can we offer, you know. Let's talk about counseling. How can we connect you with counseling?

Novice also talked about how she questioned students about how they, and their families, were doing as well as questioned them about other needs they had.

> First thing I did with students was checking how their family was doing, how their friends were doing, how they were doing. We had a lot more mental health conversations.
>
> There were a lot more students that were struggling with not only academic issues, but you know, they had internet issues. There are a lot of students that had to drive somewhere in order to have an internet connection. We have a lot of students that are from rural communities so they didn't have that connection at home.
>
> You know, finding out more about students that had needs that we hadn't really discussed before. Students that has some insecurity issues that we then tried to work through. They might be in another state and have some food insecurity issues and trying to figure out how to help them resolve that. You know our students that were here on campus and were really worried about their family, and you know talking through that.
>
> There was. I would say, at the very beginning there was very little forced discussion at all. It was more how are you handling things? How are you getting through? How's your family? Tell me about, you know. Okay, your grandparent is in the hospital. I would say the majority of the conversations were very personal. and a lot of the students really wanted to know how I was doing and how things were going. So, I actually think that there were a lot more personal conversations and less just advising conversations. We would get advising in there. How are these classes going. What do you think? How are

> you managing with the low internet connection? Here are some resources that can help you. Going through course work was not the main focus anymore.

Lauren used her mental health background as a foundation for much of her work during the COVID-19 pivot. Lauren related the student experience to a grieving process as students lost their traditional university experience as all services and classes moved to a virtual modality.

> I go at everything from a mental health standing. That's what my degrees are in and that's my background. That impacts their development and their educational experience. So, I would say their mental health needs were a focus. I felt there were big changes. There was there, there was a huge loss. There was, there was a grieving process. They felt like they had lost an experience. you know, getting to come in the fall with all the football games, the clubs, the sororities, and the fraternities. Doing all that traditional stuff that many of them their parents had done.

Hobie responded to the changing needs of students by creating a resource in the university learning management system (Canvas) to place common advising information in a centralized and accessible location for students. This resource allowed his students to access advising information upon demand and not have to depend on him for routine questions.

While many participants talked about the changes in their advising practices, Shaun said not much changed in his special population of students related to advising. Shaun and Hobie's perspectives were focused a little differently than the other participants as they were the only ones who mentioned they were teaching at the start of the pandemic. They both discussed the challenges of moving classes to an online modality.

Work/Life Balance

Many of the participants discussed how their work/life balance changed during the COVID-19 pivot. Some participants related they felt they lost the balance they had worked to achieve prior to the pivot, while others felt more productive with the flexibility they gained during the remote work experience.

Specifically, Mary felt as though the balance she had in place prior to the COVID-19 pivot shifted. She identified herself as a single mother of older children and found that she worked longer days or structured her time differently than before. Mary did not discuss the change in negative terms, but simply acknowledged that her work/life balance was different.

> …as time went on, I really liked it. I liked it a lot. It's like a confession. Yeah. Well, I mean, I'd ask it out loud at a few meetings and I think that's not necessarily the popular opinion, but I liked it. I realized that I could be on more of a rhythm that fit me personally. You know I would get up. I would get a shower. I would get my computer on. I would kind of do that first initial scan of kind of what's going on for my day. I would kind of get that set. Grab some breakfast. I hit my email. You know I would do those things. We would have our meetings. And then, I would have lunch. I could throw in a load of laundry. I could start dinner. and I just kind of got into a different rhythm where actually, to be honest, I was more productive because I was integrating the two things that have been fighting against each other. To be honest, during Covid and lock down we had dinner together because I could prepare or start a meal and have it ready and then we would go to our respective corners or do whatever in the evening. But I could work. I could go back to work, and I would work a little bit in the evening to kind of tie things up so that the morning wasn't a little hectic. So, to be honest, I worked more.

Lauren also talked about being more productive and how she focused on her own wellbeing as well that of her students.

> For me in my personal life, because you know, when you're working from home in between Zoom calls you can go start a load of laundry. You could put a soup on in the crock pot, and then you're not rushing when you get home. I just felt like my days flowed a little smoother when I had some of that time. I will say, Pre Covid, I rarely took a break, and found that I was sitting all the time. During Covid personally, I started investing in my exercise time with yoga and things like that in my small breaks, because I had to take better care of myself.

Like others, Novice indicated she worked more hours and was more productive than prior to the COVID-19 pivot. She also talked about how she was more flexible with her schedule.

> I was way more flexible probably. Well, I mean, we were all going through something so horrific, and just you know, nobody knew exactly what was going on. So, I didn't just meet with students from, yeah, 9:00 is usually when I get started with the students. I mean, if this student was working or they had to go somewhere else to get internet access when I met with students, or they were panicking, I met with them at 8:00 at night. I think I worked a lot more but of course I was at home so I could take breaks, and you know, walk outside, or you know I can take a break right here. But I didn't have I that

> 7:45 to 4:45 day. It was just trying to meet the needs of the student, trying to be that calm presence and trying to be there when they needed someone. So, the scheduling definitely got out of whack and I would meet with far more students during the day than I normally do.

While some participants talked about creating a different work/life balance, Shannon reflected on how she felt that lost her identity as a professional.

> It was like the person, kind of the professional person, that was Shannon before hasn't come back. And I don't know if that person will ever come back completely because the expectations from the students have changed.

Olivia worked from home with school aged children. She was creative about scheduling advising sessions around the needs of her family when possible. Olivia found that nap time was a great time to work but had a challenge to find space that did not disrupt her children.

> …and I did have to put up a sign, you know, for my kids that said like "Don't enter, Stop Mom's working" to kind of try and keep them away. But you know, sometimes they would kinda sneak in and be there for appointments.
>
> And you know they (students) could see my house and sometimes I would have to join Zoom meetings from my closet because that would be during nap time.

Hobie described how he structured his day differently by getting up early, checking email, and then taking a break before starting appointments.

> I did love the flexibility, though, like it was, it was pretty cool. I got in a pretty good rhythm like I would wake up early in the morning, so I wake up, you know 5:30 or 6:00 in the morning. So, I would wake up and get a cup of coffee, and I would go sit at my desk and do some emails. I'm just kind of getting checked in on the day. And you know, by 7:00am. I've done, you know, an hour's worth of emails and kind of setting up my day. I, then, go take a break and get some breakfast, you know. Relax for a minute, and then go back to work.
>
> At 8:00 or 8:30, and I've already done a lot. So now I can just kind of work on some tasks, and then, you know, around 9:30 or 10:00 I can get up and kind of go. I would go outside. Hang around the house for it. Do some chores come back and work, and then, you know, make lunch at home with my wife, which is awesome. and we were eating better because we were cooking at home for lunch. And so to me, like the routine of that was like really awesome. I really enjoyed that. I have more ownership of my day and could take good quality breaks like I could go walk outside of my house for ten minutes.

Take Aways

Many of the participants included they learned something new or gained new perspectives because of the COVID-19 experience. Some conveyed they became more open to change or trying something new professionally, while others reflected on other personal changes as they became more flexible.

Novice learned to use more technology and gained technology skills. She became more willing to try something new and attended meetings to learn more about technology.

> So now, it's really because of the pandemic. It's changed my opinion on technology. I am more willing to try something new now. So, don't like a lot of change, like DegreeWorks. I like the old version better. You know I don't ever understand why they change everything that works. But they don't ask me first, so I don't get to put that input in there. but I'm more willing to attend meetings to find out what the changes are and what's going on and to be part of that process. I think I did some of that a little bit before the pandemic. just always trying to figure out things. I think that was after I had a child and saw all the different things that my child was going to be exposed to. I wanted to learn a little bit more about that and now it's just I kind of want to learn what my students are doing and how to better reach them. So, I'd say I'm a little more open to that. Somebody did ask me if I'd be part of their Tik Tok video: I said, "No." That was a line to draw. But I think that the pandemic has made me more ease with technology and more willing to try different things.

Shaun discussed that he believes there is a need to keep Zoom as a technology for advisors. He related it would be helpful to not need to reschedule appointments when someone is out of the office sick or when the university might otherwise close for inclement weather.

> Zoom has been very effective. Using Zoom recording is super effective, and I use it all the time to record bits for class. We've used it to record things and post those as resources of how to do things. So, I will even if I never had another zoom appointment in my life, I would keep the application on my computer because I use it for other things, too. I would like to use it enough and I hope students will use it enough. You know, snow day or something else where we can effectively or just have to shut and shut everything down. So, I'm gonna continue to use it or recording for meetings. Someone sick, I'm sick, hey, we can get on, class we can at least cover a few things. It's a great backup and you know, if you're gonna have a plan, B, you occasionally have to implement it. Otherwise, you know you're just not prepared when the time actually comes. So I want to have it available and continue to try to be effective with it.

Hobie's main take away from the COVID-19 experience was to be more flexible and intentional in his professional work.

> I think the goal is to be to be flexible in what we're doing and how we're doing it. And to zoom out and look at how this impacts our entire cycle of work.
> Like I feel like we look at things like right here at our face, you know, and we don't zoom out. We're trying to look at the forest through the trees, and we don't zoom out and see the whole forest when we try and apply things.

Olivia related her main take away was to remember that students and colleagues are people first. She also related that while she wants to be readily available to students. She also wants to be able to re-establish boundaries related to work/life balance.

> I think that I have tried to keep that filter that students are people first in that their schoolwork and things are important, but not as important as them as individuals. And so, I think that that has, you know, informed my work in a positive way. I think it's important for advisors to have policies and practices that are meeting students where they are. So, if the student believes they need an online appointment, that I feel like that should be made available to them. But also nobody is expected, or should be, connected to their technology and reachable 24/7. I don't know that anybody wants that, but I certainly don't want that for myself.

Mary reflected on her previous advising practice and acknowledged that she became more willing to try something new. Mary had previously offered fewer individual advising sessions than she offered during her remote work time. Mary decided that she wanted to meet one on one with students instead of having predominately group advising. Mary also reflected on the COVID-19 experience and how the university might use the experience to empower voices beyond those who are traditionally heard.

> It's allowed me, because I was part of all of this, to set aside my general distrust of something new to work to just say, "Okay, all right, let's bring it on." Normally, you don't want to say, bring on the day because you're jinxing yourself, and you're just like I don't want to invite problems, but in in that case, in that moment I was like, "All right, let's see. Let's go for it." I think, in terms of that it was great because it gave people the freedom to just try stuff. It's not really going to fail. It's just going to teach us something which I think is really what higher education should be about anyway. But I think it did give me that freedom to do that.

> I am truly trying to hold on to the bring it on kind of attitude. Why not? As we move further and further away, and as I see people quote-unquote, wanting to get back to normal. it frustrates me because I think it's stifling in in a way. Maybe that's not the right word, but to have any kind of optimism about embracing different ideas, listening to different groups being at the table in some ways it feels like there's some people that just want it to go back to just exerting control rather than trusting other professionals to be professional and to have opportunities for input that could help more people.
>
> I think we had a unique opportunity as a university community to really be innovative and to embrace that side of the university. I am certainly not a creative type person. I couldn't be a researcher because I'm not coming up with ideas, but it did actually empower me to think like. Oh, well what if we did try it like this, and not be afraid of just like getting shot down? It gave me an empowerment to try to be a little bit more out of the box and think, creatively. We think how I could do something or how I can reach a student. I think we don't need to lose that at all. I think we needed to embrace that a bit more than we are currently. That has sort of slipped away a little, and it makes me a little sad. you know, and I don't want to turn into… it is the wrong word. Jaded. I think is a better world for being listened to and included as much as we were because I think we were recognized as one of those key people, key groups on campus that could help hold it together. And it's not that I appreciate that from a power standpoint, but it's more of an appreciation for what we can contribute to the university as a whole, because we care. because that's why.

Shannon also reflected on how she learned more about herself during the COVID-19 pivot. Shannon related that although she never thought she could work from home without the support or structure provided by colleagues and an office environment, but the experience changed her mind.

> I know that it was like chaotic, but I almost want to say bittersweet. It taught me that I can work from home where I never thought that I could do that. It wasn't an interest of mine before.
>
> It was bitter because there was no organization, and there couldn't be. I mean they are going to be changes, through no fault of the university's administration, that sprinkle down through, you know, the powers that be and then sweet because we really did figure out how to survive. I mean there were parts where we survived. A lot of times it was surviving. So, that kind of goes back to the bitter, you know. It was a great opportunity to learn about myself as a professional and it was a great opportunity to break the curtain with our students, and we can be real people. But I do feel like I've lost something.

Lauren talked about finding compassion and empathy for others during the COVID-19 pivot in student-advisor relationships or in relationships among colleagues.

> I think we also, during the pivot, learned to give one another a lot more grace because everybody was in the same boat of total chaos. And if everybody is in chaos, I think you're kinder, you're more patient. I feel personally I saw in some of my fellow advisors, that they were a lot more gracious about understanding because they were going through chaos themselves so, and they wanted people to be gracious with them. So that was a good thing to see.

Communication and Support

Communication and support were important components of the COVID-19 pivot experience. Academic advisors were dependent on the university and their specific college to provide policies regarding the mandate to virtual services including work from home guidelines, employee health screening procedures, and vaccine requirements. Additional support for academic advisors was provided through academic advisor professional development opportunities facilitated by the Director of University Advising.

University Level Communication

On March 16, 2020, the university issued a mandate for all employees and students to leave campus. Employees were directed to work from home and students were directed to attend their currently enrolled classes via Zoom. A review of the archived communication demonstrated that the university, in many instances, communicated general COVID-19 guidance with university faculty and staff as one entity. Communication concerning the instructional mission of the university and transitioning classes to a virtual modality was directed more specifically to the faculty. Information and guidance were generally communicated through email and a COVID-19 page on the university website. At a minimum, weekly briefings were given by the provost to faculty and staff. These included safety protocols and updated procedures as well as an update on the number of students, faculty, and staff who tested positive for the virus. In addition to the COVID-19 website, a call center was opened to help manage the magnitude of calls received

each day from students and parents attempting to make decisions and navigate the changing landscape of classes, residence halls, and health precautions.

The evidence of university-level support and communication was well documented and archived for the Southern Association of Colleges and Schools Commission on Colleges (SACSSCO) reaffirmation process the university completed in March 2023. The documentation was made available for reference for this study and was found to be comprehensive with over 300 communication documents to faculty or general staff, as well as the minutes of senate and presidential cabinet meetings during the COVID-19 pivot and pandemic timeframe. Appendix D A summary of the documentation is included in Appendix E. Most of the documentation was targeted to faculty and concerns the instructional mission of the university relating changes to attendance, modality, and grading policies. One document in the archived documentation specifically targeted academic advisors and advising offices. The document was a PowerPoint slide deck of the Advisors and Counselors Caucus virtual meeting held on March 18, 2020. The meeting included a panel from across campus to discuss the immediate need and status of the COVID–19 pivot. The Associate Provost, Registrar, and representatives of student support/student affairs programs provided updates for the advisor group. As the Advising Technologies Coordinator on this campus, I support campus advising and tutoring centers with a specific technology platform and participated in the meeting. I was available to answer questions and provide advising technology support for the transition to virtual services.

While extensive university-level support specifically for advisors was not strongly evidenced in the documentation, participants related they received information concerning the pivot from their college or office-level supervisors rather than the university. This finding is aligned with the decentralized advising model of this institution. Novice, Olivia, and Lauren

mentioned communicating with their offices and colleagues regularly through email and Teams. Olivia related she completed a form to allow her to take her computer equipment home. This indicated there was a formal process in place. Shaun and Novice mentioned using their college information technology groups as resources as they provided needed assistance to set up equipment in home offices. These college or office-level interactions evidenced communication was occurring, albeit not necessarily as formal or as well documented as the university-level communication during the COVID-19 pivot and pandemic timeframe.

Advising Professional Development

Professional development opportunities for academic advisors are typically coordinated by the Director of University Advising on this campus. Sessions are offered regularly throughout each semester on varied topics and are facilitated by senior-level advisors or experienced campus partners. Advisors register and attend sessions of their choice without a specific expectation set by the university. A list of professional development sessions offered in the Spring 2020 semester and continuing through the Fall 2022 semester was provided by the Director of Advising for reference for this study. Table 3 outlines the professional development opportunities. Permission to use the information related to professional development opportunities is include in Appendix F.

Spring 2020 professional development opportunities prior to the COVID-19 pivot included nine sessions with topics related to supporting student veterans, mindfulness/self-care, academic coaching, Honors College, and transfer courses. In addition to these sessions, three others entitled, “Tech Talks” offered an opportunity to explore subjects such as security, collaboration, and efficiency as related to technology with an Information Technology Specialist. The two remaining Spring 2020 sessions offered during the timeframe of the pivot and transition

to virtual advising included supporting students in academic recovery and one additional "Tech Talks" focused on using Zoom to host virtual appointments, utilizing the Zoom waiting room, and how to add the Zoom meeting to an Outlook calendar. The schedule of sessions remained as previously planned, but the sessions transitioned to a virtual modality. Advisor professional development followed the normal pattern and was not offered during the summer semester on this campus.

As advisors moved beyond the initial pivot and continued to provide academic advising services virtually, professional development sessions for the Fall 2020 term addressed advisor needs and experiences related to virtual work and using technologies in new or creative ways. The "Tech Talks" continued to be available and offered an opportunity to connect with an Information Technology Specialist to ask questions among colleagues and explore common technology concerns. Additionally, multiple sessions were offered to support using the student success management system to manage the advising caseload and scheduling virtual appointments. Leveraging peer advisors, technology applications, and Qualtrics were the remaining topics advisors could choose to attend to collaborate and learn more about providing quality advising services while the university remained closed to in-person events.

Table 3

Professional Development Opportunities

Semester	Date	Topic
Spring 2020	January 17, 2020	Tech Talks: Security
	January 24, 2020	Green Zone Training: Supporting Our Student Veterans
	February 4, 2020	Relax and Restore
	February 7, 2020	Tech Talks: Collaboration
	February 11, 2020	NACADA Webinar: A Deeper Look at Incorporating Coaching Conversations into Academic Advising Practices
	February 14, 2020	Honors College Experience
	February 21, 2020	Performance Evaluation for Academic Advisors
	February 28, 2020	Transfer Course Articulation
	March 6, 2020	Tech Talks: Efficiency Tricks & Tips

	March 19, 2020	NACADA Webinar: Successful Advising Strategies for Supporting Student Academic Recovery
	May 1, 2020	Tech Talks: Security
Fall 2020	September 11, 2020	Tech Talks
	September 15, 2020	Advise Assist V2 Reports
	September 2020	Virtual Solutions: Zoom Links, Rolling Campaigns, & Student Check Ins
	September 25, 2020	Roundtable Discussion: Leveraging Peer Advisors in a Remote Environment
	October 2, 2020	Tech Talks
	October 13, 2020	Roundtable Discussion: Virtual Advising Strategies
	October 20, 2020	Tips for Using Qualtrics to Get the Information You Need
	October 23, 2020	Using the Enneagram to Inform Student Support
	November 3, 2020	What's App-enning: How to Aid Student and Advisor Success Through Technology Resources
	November 6, 2020	Tech Talk
	November 13, 2020	The Bullet Journal
	November 17, 2020	Universal Design for Learning
	November 20, 2020	The Honors College Experience
	December 1, 2020	Interactive Online Meetings

General Technology Perspective

Stated views on technology varied among the participants and ranged from general distrust or lack of understanding to fully embracing technology and viewing it as a valuable tool. The level of experience with technology also varied among the participants. Several participants expressed they viewed technology as a way to make daily tasks more efficient. Concepts from the conceptual framework of this study were identified as a priori themes from the literature review and were evident in the participants' perspectives. Themes related to Technology Acceptance Model (TAM), the Model of Literacy and Technology Literacy Dimensions (MLTLD), and Self-Directed Learning (SDL) were included in the participants' descriptions of their perspective of technology.

Related to the concept of Perceived Usefulness (PU) from TAM, Hobie talked about how it is important to know how technology can help him be more efficient before he adopts the technology.

> Okay, before I spend 20 hours on a product demo and another 40 hours on platform training, what can this do for me? What can it do? I have access to 3 different platforms of stuff that I do. What can it do outside of those? How can it help me with students?

Olivia related her thoughts about using multiple technologies in her daily work and whether those technologies made life easier or more challenging. Olivia's perception of technology was supported by concepts from TAM as she discussed using multiple technologies and whether efficiency is increased. Concepts from TAM, PU and PEU, were also evident in Olivia's narrative.

> I think technology can be really great. I do think it can get overwhelming when there are a lot of different platforms, and they all do something a little bit different, so you still need all of them. You can't streamline too much. I do sometimes find it frustrating that, you know, when technology is supposed to make life easier and things quicker a lot of times it does the opposite.

Similarly, Lauren expressed a mindset that embraces technology based on PU.

> I think technology is just a major resource that up until the pandemic we were not utilizing at my university to the degree that it needs to. I still think there's a lot more we can learn and use technology. I'm excited about exploring other platforms, other programs, and seeing how we can use it to get the data we need to make informed decisions and providing the data to students so they can make informed decisions.

Shaun also indicated that the usefulness of technology is important.

> I like having access to technology. I do think that we lose some pieces, some human connections, some ability to communicate with people in a physical sense the more we lean on technology. So, I'm one of those that you know, I love having access to technology and I just, you know, try to use it myself, but think it would be great for all of us to use it in in a beneficial way and to really respect and acknowledge the importance of being able to communicate with people. You know in-person, interpersonally, and I think that technology can become you know a little bit of a crutch, and that way or maybe not even a crutch, but just something that we lean on so much that we kind of forget how to have real interactions with people and it can have some negative consequences. I love, technology, I love learning new tech, new pieces of technology, and love the things that we can do with it.

Even when expressing a dislike or distrust for technology, the participants communicated in terms of PU and/or PEU of the technology. Some of the participants expressed they had limited experience with technology prior to the COVID-19 pivot and thus were more hesitant to fully embrace using technology in their advising practice.

Mary expressed her general dislike of technology when she stated, “I don't like it. There are aspects of it that I think are positive like Zoom and FaceTime and to a certain degree email. People can use it and meet where they are.” Mary acknowledged the utility and convenience of technology when she stated, “Do I like having access to their full transcript? Absolutely! Do I like having access to, you know, kind of a sort of a chronological history of notes and things. Yes, I do!” Mary summed up her thoughts regarding technology in general by stating, “I am not a Luddite, but I want technology to be useful and not harmful.”

Shannon and Novice discussed how their use of technology prior to COVID-19 was more limited. Shannon said, “…it can all get little bit confusing when he (her husband) tells me all the things that computers can do and technology can do. It's a little bit of a rising world. It kind of scares me.”

While Shannon expressed she does not understand how technology works she also expressed a desire to use it as a tool.

> So, I have a healthy respect, but I wish I had a deeper understanding of it. I really appreciate it now because now I really use it as a tool where I didn't before, and it was just something to help me get my job done. And now it's a tool.

Novice related that while she had not previously embraced technology due to a generational effect, the use of technology during the COVID-19 pivot and pandemic provided a new appreciation for technology in her professional and personal lives.

> I’m not a fan of technology, just because I’m old, and I grew up in a whole different world. But it's amazing, and I don't know how any of us would have survived the Covid

> issue without the technology and thank heavens for Zoom. If you told me I'd be having a conversation with somebody before with Zoom. Why? You could just pick up the phone and call them! This has just been not only for academia, but personally how my family has gone to Zoom to talk.

Advising Technology

Similar to their perspectives regarding technology in general, the participants' perspectives and experiences with the technology utilized in academic advising, more specifically to host virtual appointments, varied. Many of the participants described using advising technologies to some degree previously, but none of the participants had explored using Zoom or other technology platforms to facilitate virtual appointments. According to the participants, prior to the COVID-19 pivot advising technology was focused more on scheduling appointments, managing appointment notes, accessing basic student information, and assisting students to plan and register for courses. Similar to their perspectives regarding their general technology perspectives the participants expressed their views concerning advising technologies in terms of the foundational concepts of Technology Acceptance Model, the Model of Digital Literacy and Technology Literacy Dimensions, and Self-Directed Learning.

The participants discussed using several advising technologies during the COVID-19 pivot and throughout the virtual work experience. The most common technology mentioned was the videoconferencing platform, Zoom. None of the advisors or student service coordinators had used Zoom prior to the pivot, but everyone expressed a quick shift to using the technology to satisfy an immediate need to host advising appointments and attend meetings during the COVID-19 pivot and pandemic. The participants also talked about a stronger reliance on DegreeWorks, the university's online degree audit tool, as they moved away from paper resources and transitioned to virtual resources. Additionally, participants talked about other technologies such

as Teams that they used to stay in touch or engaged with their colleagues and students during the pivot and timeframe of remote work.

Lauren was the only participant who indicated she had a university-issued cell phone. Lauren used her cell phone in place of her typical "drop-in availability" for advising. Students texted her questions during the workday or after hours and she responded as quickly as possible. This allowed Lauren to replicate the drop-in office policy she had in place prior to the COVID-19 pivot and pandemic.

Novice used paper folders and sticky notes prior to the COVID-19 pivot, but quickly switched to virtual resources to maintain both advising appointments and academic records. Novice specifically talked about depending more on DegreeWorks rather than printed curriculum sheets during her advising sessions. She also discussed using the student success management system to submit advising summary notes after each appointment.

Mary stated that she has experienced several advising technologies during her tenure as an advisor and discussed her concern over the potential loss of data when moving from one platform to another. Mary related this concern impacted her willingness to adopt new technology platforms into her advising practices as she feared she would lose the archived student record if/when the university changed systems again.

Shaun readily admitted he liked technology and did not have issues with adopting new technology specifically related to advising when needed. Shaun expressed concern about losing the human connection when using technology at the level needed during the pandemic though.

Olivia engaged her students creatively and used Kahoot in an internet scavenger hunt during the virtual freshman orientation held on Zoom. In contrast to this creativity with technology, Olivia described how she created a curriculum notebook before she left the office to

work virtually. The notebook consisted of printed curriculum sheets that were laminated so she could mark off degree requirements for a student and then erase them so she could use them for the next student.

Prior to the pivot, Hobie created an advising course in the university's learning management system to allow students access to advising resources at their convenience and to foster independence. Hobie related that he found this resource invaluable during the pivot and time of virtual advising as some of his students were already familiar with the resource and did not need to rely as strongly on his availability as other students. Hobie mentioned that several advisors were interested in recreating his course for their specific advising practice. He said many considered it a novel idea to use for the pandemic, yet he had created it much earlier.

Shannon discussed how she identified a course crash (MIT) for science tutoring for her students who needed tutoring during the pandemic.

> Before COVID I might have said, 'Well, that's being too hovering'. Now I embrace a kind of mindset like, 'I do. We do. You do.' They could see "me doing" it. I would send them the link that was the "we do" portion, and then they take that from there, and use that as a spring forward and they decide whether or not they're going to do it. You do. I mean I can't do everything for them, but I was very hesitant becoming a crutch for my students before. Now, I just kind of see things a little bit differently because they still have an actionable item that they have to do.

Motivation to Learn New Technology

Participants were asked about their motivation to learn new technologies in general and more specifically learning about technology related to their advising practice. Participants discussed their motivation and used terms such as solving an immediate need or practical problem along with relying on previous experiences with similar technology. These descriptions aligned with the foundational concepts of Self-Directed Learning (Knowles, 1975) and the Model of Digital Literacy and Technology Literacy Dimensions (Beetham & Sharpe, 2011). The

ease of use and how useful the technology was for their advising practice, aligned with the Technology Acceptance Model (Davis, 1989), were also noted as themes in the participants' discussion of motivation.

Immediate Need

One of the key foundations of Self-Directed Learning is to seek learning to solve an immediate need. A technology to host virtual advising appointments was an immediate need identified by the participants. Zoom was the most used virtual meeting platform, but participants also mentioned they used Google Voice or Teams before they eventually settled on using Zoom. None of the participants had used Zoom previously and most of the participants indicated they used YouTube to learn how to use Zoom. Novice discussed how she practiced with her colleagues and family a few times before she felt confident enough to host appointments with her students. Lauren related a similar experience but added that her students were also learning to use Zoom, so she felt as if they learned together. Shaun discussed how the first ten days of the pivot were chaotic, but once he settled on Zoom and learned how to provide the resource to his students, he felt more stable with the process. Participants resolved the immediate need to host virtual appointments by locating resources to learn how to use Zoom.

Shaun discussed the chaotic nature of the first ten days of the COVID-19 pivot. He related that he, as well as other participants, needed a method to host virtual appointments. As such, he attempted to use Google Voice, but quickly realized Zoom was a more effective technology to use for this immediate need.

> We tried to as a team to kind of have a common method of how we were going to connect with students and looking back, you know, it didn't really make a whole lot of sense. For a maybe ten days total I used Google Voice. Previously, we had not done Zoom appointments even though I knew Zoom was a thing and already had access to it, but we weren't using it and so the only type of virtual appointment I had done previously

> was a phone appointment. And you know not wanting to just have advisors, cell phone numbers floating out there everybody set up, you know, Google voice accounts.
>
> We used all the same processes of campaigns and email, so everything was the same except for the actual attendance of the appointment. I would give students that number so they could call in. I could accept the call on my cell phone, and we could talk over the phone on speaker. I would have them pull out their device and we would, you know, look at things, but without the ability to see the screen together collaboratively. It was less effective, less personal and less clear. Clarity was lacking sometimes because we couldn't see the same screen. So, that was the initial pivot and that lasted about ten days before it became very clear that Zoom was far superior and that was gonna be the method moving forward.

Novice talked about her experience to learn to use Zoom and more specifically her experience in gaining confidence to use the platform. Novice also used terms related to the Model of Digital Literacy and Technology Literacy Dimensions as she talked about securing the equipment she needed and practiced using Zoom with her teen aged child, colleagues, and ultimately her students.

> I don't even know that had I ever really used. Zoom. We use some type of video sharing, and on occasion bring somebody in for a meeting remotely. But I came to the office, and I got all of my computers. I got my two screens from my office and my computer and my printer and took it home.
>
> I looked up everything I could on Zoom. I had my child show me how to use Zoom and started practicing. And I remember the first student. It was the student's first time using Zoom, and it was my first time using Zoom. And so, we kind of figured it out together.
>
> We actually practiced on a couple of the advisors. We kind of practiced together. We did some group meetings and figured out how to share screens together and there is a chat function. So, I would say it probably took me a good two weeks before I felt like I could really the somewhat confident in doing.
>
> Of course, every single meeting started off with, "You are muted." Still happens to this day obviously. But watching whatever I could, and it wasn't necessarily things that the university sent out I don't think. I think it was just trying to figure out the platform, probably watching YouTube videos and trying to do that.

Shannon also talked about how she tried to resolve her immediate need to facilitate virtual appointments as she emailed students to change in-person appointments to a virtual

modality. She described how she tried to use Teams because she was more familiar with that technology, but ultimately changed to Zoom because it was less confusing to students.

> In the meantime, I was emailing students. I was changing students in-person. I had never used Zoom before that except in like interviews. I had used it, but just sparingly. It was not a part of my daily work. I actually tried to use Teams but my students were really confused, but to me it made the most because it linked up with my calendar, but it really confused my students and I started using zoom

Previous Experiences

The Model of Digital Literacy and Technology Literacy Dimensions (Beetham & Sharpe, 2011) includes that learners have previous related experiences and can be used as a foundation to learn new technology. It is thought that learners use their previous experiences to try out and build confidence with new technology. Participants related they depended on previous experiences or skills gained from other technologies to become proficient in using Zoom to host appointments. An example of using previous experience as a foundation is Mary's recollection that she used her experience with Facetime as a foundation to learn Zoom and indicated she quickly became confident with the technology with one-on-one appointments. Mary also stated that her office later added drop-in Zoom rooms to mimic their previous in-person drop-in office hours.

Ease of Use

Shannon discussed how she learned more about best practices to use technology by attending hands-on and practical training sessions. Shannon described a professional development session to learn about the campus student success management system in which a demonstration was presented and then time was available to address real problems or scenarios of the attendees. Shannon, along with Novice, related they were more apt to use a technology if they understood how to best use or apply it and found it simple to use to complete their tasks.

Perceived Usefulness

While the participants all quickly realized the usefulness of Zoom for their advising practice Hobie related an experience with another technology on campus. Hobie was encouraged by leadership in his college to utilize a specific technology. He questioned the purpose of the technology and the benefit of using the specific technology. He stated that the administrator of the technology could not clearly explain the purpose or outcome of using the technology. He was referred to an online demo and training resource. He discussed how it felt to not receive a simple answer, yet he was being asked to spend forty hours in a training environment not to learn how to use the technology, but why to use it. Hobie stated, "If I am going to spend that kind of time learning about a technology, then it better do a lot for me. I have three other technologies that will work for me." Hobie also expressed how he simply didn't have forty hours during the COVID-19 pivot to spend learning about the possible usefulness of the technology particularly without understanding its value.

The findings of the case study provided a rich description of the experience of the participants during the COVID-19 pivot and the communication and support provided by the university. The findings also provided context to the process these advisors used to identify technology solutions to their immediate needs. The participants' stories illustrated the emotion and uncertainty of the experience as well as the resiliency of the advisors.

Chapter 5

Summary and Discussion

Purpose of the Study

The purpose of this study was to explore how academic advisors at a large, R1 university campus who traditionally offered mainly in-person services, transitioned to fully remote operations during the COVID-19 pivot. The adoption and integration of technology into undergraduate academic advising practices during the pivot were also explored. The advisors' perceived training and professional development needs and delivery preferences to facilitate more effective learning opportunities regarding technology for this population of advisors were also a focus of the case study.

Conceptual Framework

A conceptual framework was used in this study to explore the perceived reality of the participants as they navigated the unprecedented COVID-19 pivot to provide virtual advising and student services. The Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD) (Beetham & Sharpe, 2011), Technology Acceptance Model (TAM & TAM 2) (Davis,1989; Venkatesh & Davis, 2000), and Self-Directed Learning (SDL) (Brockett & Hiemstra, 1991; Hiemstra & Brockett, 2012; Knowles, 1975) were used to frame the participants' descriptions of learning to use new technology to host virtual advising appointments and to integrate other technology into their advising practices. A priori codes were developed from the conceptual framework to provide structure to the participants' stories of their COVID-19 pivot and transition to virtual advising. Additional emergent themes were identified in the stories of the participants that illustrate the actions and feelings of the participants during this unprecedented time.

Summary of the Findings

The findings of the study provided examples of the a priori themes developed from the conceptual framework and additional themes identified in the data. The a priori codes and themes provided structure to explore the COVID-19 pivot experience. Table 2, included in Chapter 4, identifies and operationalizes the a priori and emergent codes.

A priori Codes

A priori codes from the literature review included codes from each of the technology models and Self-Directed Learning theory. The Model of Digital Literacy and Technology Literacy Dimensions (Beetham & Sharpe, 2011) supported advisors using experience as a resource. Codes developed from Technology Acceptance Model (Davis, 1989) included engaging with technology based on perceived usefulness and the perceived ease of use of the technology. Self-Directed Learning theory (Brockett & Hiemstra, 1991; Hiemstra, & Brockett, 2012; Knowles, 1975) supported the participants' actions of seeking learning opportunities to resolve a practical and immediate need.

Model of Digital Literacy and Technology Literacy Dimensions

Using experience as a resource based on the Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD) was evident in the participants' COVID-19 pivot descriptions (Sharpe & Beetham, 2010). Participants discussed using their experience with Facetime to learn how to use Zoom to facilitate virtual advising sessions using videoconferencing. Several of the participants mentioned they had used Facetime for personal use to communicate with friends or family. The participants mentioned they had been part of virtual meetings before the COVID-19 pivot using Zoom, Teams, or Google Voice, but had not been responsible for setting up or leading the meetings. These previous meetings were primarily led by one person with a group

attending in person while another attendee joined from a distance. Given this, most of the participants did not previously need to seek out training to learn to use videoconferencing technology. During the COVID-19 pivot, participants were able to use these passive experiences and their dynamic experiences with Facetime to gain confidence using Zoom. They were able to relate the functionality of the similar technologies as a foundation to use Zoom to facilitate virtual student services.

Technology Acceptance Model

Davis (1989) and Venkatesh and Davis (2000) posited in Technology Acceptance Model (TAM) and Technology Acceptance Model 2 (TAM2) that people will engage with technology based on how useful the technology is perceived to make a task easier or if the technology is useful or relevant for their job. Davis also proposed that users engage with technology based on how easy they perceive the technology is to use. Usefulness and ease of use were mentioned by the participants throughout the interviews. Participants conveyed they found value in using technology to facilitate virtual advising sessions and engaged with certain technologies based on how easy the technology was to use.

At the beginning of the pivot, both Shannon and Shaun discussed using other technologies (Teams and/or Google Voice), but within a short timeframe (10-14 days), Zoom was used exclusively because of student access and ease of use. In addition, Zoom was supported by Canvas as the main tool for connecting with students and others. Novice's anxiety and reluctance to use technology before the COVID-19 pivot was quickly eased once she engaged with Zoom and practiced with family members and co-workers. Novice's comment that her family uses Zoom for group conversations now rather than using a phone was a strong

illustration of how users engage with technology based on perceived usefulness and ease of use (Davis, 1989).

Hobie's experience with a specific technology also demonstrated how users will engage with technology based on usefulness and ease of use. Hobie's story included that he was encouraged by his college leadership to use a new technology platform for specific job tasks. As he questioned the technology administrator more about how the technology could help make tasks more efficient, he was directed to a training resource that required him to spend a large amount of time to learn about the usefulness of the product. Hobie was passionate when he stated, "Okay, before I spend twenty hours on a product demo and another forty hours on platform training, what can this do for me? What can it do? I have access to three different platforms of stuff that I do. What can it do outside of those? How can it help me with students?" This statement illustrated Hobie's questioning of the usefulness of the new technology platform.

Mary talked about how technology does not always save her time in an appointment but that she genuinely appreciates the result. The necessity to use multiple technology platforms to check in an appointment, gather student information, and make notes about the appointment was viewed as time-consuming and disrupted the flow of the appointment. She related that she used the available technology based on the value gained whether that was efficiency completing tasks, continuity of advising notes, quality of information gathered, or convenience.

Self-Directed Learning

Two foundational components of Andragogy and Self-Directed Learning (SDL)include the concepts that adult learners engage in learning opportunities to resolve an immediate need, and that adults will engage in self-initiated learning opportunities when available (Knowles, 1975). The participants in this case study confirmed these two concepts strongly during the

interviews. The mandate to immediately transition from all in-person to all virtual services without preparation, training, or professional development presented an immediate need: a technology to host virtual advising sessions that was accessible to both students and advisors, no matter the device or internet provider. While the participants explored a few videoconferencing options, Zoom was quickly the preferred technology to host virtual advising sessions due to the ease of use by both students and advisors. Zoom was also supported by the university and access was available through the university website. As Zoom was adopted by the institution, participants realized they needed training or guidance in how to use the technology, since they had not used it regularly or not at all in some cases. Many of the participants quickly focused on identifying and watching YouTube to learn about using Zoom. Advisors found instructional videos that were available to view the process step-by-step. These tutorials were available on the web from credible sources and experienced users. The university also provided guidance through the Center for the Enhancement of Teaching and Learning and college level information technology offices.

The participants also related they attended professional development sessions offered through the Provost Office and University Advising to learn more about how to manage virtual work. The optional professional development sessions were hosted on Zoom thus allowing the participants the opportunity to use the platform from the "student" side while learning about topics such as virtual advising strategies, hosting interactive online meetings, and how to implement features of the campus student success management system related to appointments, advising note-taking, and other advising tasks to support virtual advising. This allowed advisors to learn more about how to manage their advising caseload more effectively and address new student concerns more effectively.

Emergent Themes

Beyond a priori codes related to technology models (Beetham & Sharpe, 2011; Davis, 1989) and Self-Directed Learning (Knowles, 1975), there were other themes that were shared during the participants' recollections of the pivot. The career path of becoming an academic advisor seemed important for participants to discuss. In addition, work/life balance was also a major theme within the participants' stories. The COVID-19 pivot and the subsequent experience of working in a virtual environment were described as chaotic, but overall positive experiences. These themes are discussed below.

Chaotic

Without exception, the participants described the COVID-19 pivot as chaotic in terms of both work and home settings. Shaun stated that it took approximately ten days to decide which technology platform would best fit his needs to host virtual appointments. Shannon and Hobie talked about being with students on Alternative Spring Break trips when the mandate to cease all in-person activities was announced and how challenging it was guiding students through the first few days as emotion, along with the realization that the world itself was in disequilibrium. Olivia, Novice, Lauren, and Mary talked about setting up home office spaces without understanding how long they may be working remotely, and the process of trying to secure equipment to support their required work. The experience of working from home and being out of their normal work environment was viewed as chaotic as well. Participants juggled multiple family members working from home and children attending virtual school, while attempting to assist students with the transition to virtual classes and student services. This is illustrated well in Lauren's description of creating a sign to help her young children understand that she was working. Lauren described the sign and the children's reaction during the interview.

And we I did have to put up a sign, you know, for my kids that said like ‘Don't; stop Moms working to kind of try and keep them away. But you know, sometimes they would kinda sneak in and be there for appointments. So, I think we drew like a stop sign shape on it. They didn't maybe get it. But yeah, they just ignored it.

Loss of Work/Life Balance

The experience of working from home was not only viewed as chaotic, but several participants talked about both the benefits and concerns of work/life balance during the pivot. Some of the participants found they enjoyed working from home, and they felt as though they were more productive than when they work on campus. Hobie, Mary, and Lauren discussed how their daily routines changed as they worked non-traditional hours outside of the typical 7:45am to 4:45pm workday and worked breaks in throughout the day to relieve stress and to gain a sense of control as much of life seemed out of control. Hobie and Mary discussed how they started their days earlier than normal and then took breaks to walk outside or to start a meal before continuing to work. Lauren and Novice worked later hours to be available to students at non-traditional times as they attempted to support students in this chaotic time.

Conversely, Shannon talked about how she felt she lost what she called her “professional self” during the pivot experience. Prior to the COVID-19 pivot, Shannon was project driven and collaborated often with co-workers. Shannon discussed that she felt isolated and needed to change her focus from projects to address her needs to work remotely and the immediate needs of her students.

Positive Experience

While the participants described the experience as chaotic, they also indicated the experience was ultimately positive as they tried new things or new ways to accomplish familiar

tasks. The participants employed concepts from MDLTLD (Beetham & Sharpe, 2011) as they accessed new technology platforms and used their previous experiences to build confidence, thus competency. The participants demonstrated using concepts from SDL (Knowles, 1975) as they worked to solve the immediate need to facilitate virtual services. The participants recounted they mostly approached the COVID-19 pivot as a challenge and learned they were resilient and were proud of the way they worked through the situation. Many of the participants reflected on how they grew professionally and personally through the experience. The growth that Mary and Novice related in their narratives demonstrated the professional and personal growth the participants experienced. Mary specifically talked about changing her advising practice from group to one-on-one sessions as well as her new attitude toward change.

> I am truly trying to hold on to the bring it on kind of attitude. Why not? As we move further and further away, and as I see people quote-unquote, wanting to get back to normal. it frustrates me. because I think it's stifling in in a way. Maybe that's not the right word, but to have any kind of optimism about embracing different ideas, listening to different groups being at the table in some ways it feels like there's some people that just want it go back to just exerting control rather than trusting other professionals to be professional and to have opportunities for input that could help more people.

Novice experienced tremendous growth in her utilization of technology in her personal and professional lives.

> If you told me I'd be having a conversation with somebody before with Zoom. Why? You could just pick up the phone and call them! This has just been not only for academia, but personally how my family has gone to Zoom to talk.

Recommendations/Interpretation

Reflecting on the stories of the participants' COVID-19 pivot experiences, there are recommendations to consider related to support for academic advisors: the modality of advising appointments, technology options for advising practice, and advisor professional development opportunities. The modality of advising appointments and the technology used in advising

practice should be considered as higher education institutions have returned to pre-COVID operations. Before the COVID-19 pivot and experience the campus in this case study offered predominately in-person classes and advising. The question of whether that is the path the institution or its constituents desire to continue should be asked. Beyond appointments and technology implemented in advising practices, based on the stories of the participants the method to provide professional development opportunities should be considered as the participants related they learn differently and appreciate different approaches and modalities for professional development.

Advising Modality

In-person meetings and virtual meetings often can accomplish the same goals. Screens and resources can be shared while the advisor and student meet face-to-face in both modalities. Advisors were praised for their high-quality work during the pandemic, and many felt as though they worked longer hours and were more productive by having more appointments or interactions with students when they worked from home (Charlton, 2022). While working remotely might not be possible in a full-time capacity, the findings in this study support that a review of the advising modality and remote work policies should be made. What appointment modality students would prefer and would employee satisfaction and productivity increase with remote work options are important questions to consider post-pandemic.

Advising Technology

Advisors in this case study utilized multiple technologies during the COVID-19 pivot and subsequent pandemic. Advisors reported using Zoom, Google Voice, Teams, Kahoot, Canvas, and cell phones, as well Banner and the university student success management system at a minimum. Advisors reported technology was the foundation of successfully supporting students'

needs, and they continued to depend on most of the same technologies to support their in-person appointments as they returned to campus. Through the participant conversations, many stated they would like to see an integrated technology platform that would address their needs to make appointments, access academic information, and record information. This would lessen the number of platforms to consult for each appointment thus allowing them to use more time addressing student needs and supporting student success (Charlton, 2022).

Advising Professional Development Opportunities

The participants stated they appreciated the optional professional development program offered through the Office of University Advising and attended sessions they felt are applicable to their advising practice. Some participants mentioned they are not always able to attend professional development sessions due to conflicting priorities. Participants expressed that professional development opportunities would be enhanced by offering resources that could be reviewed post-session. For example, placing resources, including videos, in an online location should be considered for this campus as a means for development and review. This is supported by the concepts of SDL (Brockett & Hiemstra, 1991; Hiemstra & Brockett, 2012; Knowles, 1975) as the advisors can engage with the information when the topic satisfies an immediate need and/or there is more time to engage in the learning opportunity. Lastly, participants shared that the method of presenting information is important. The participants indicated they would value the opportunity to work with a group of colleagues on a topic or scenario in a discussion or roundtable format. The desire to attend sessions incorporating hands-on/active learning, rather than demonstration, was mentioned by multiple participants. The concepts of SDL (Brockett & Hiemstra, 1991; Hiemstra & Brockett, 2012; Knowles, 1975) support providing a range of opportunities for adults to engage in as they seek to solve immediate and practical problems.

Researcher Transformation

Recognizing that I, as the researcher, also experienced the COVID-19 pivot, and that my professional work supported the transition to virtual advising on this campus was important as I worked to narrate the stories of the participants. While I wanted to remain in the background of the stories, I often found myself thinking about our parallel journeys and how I also changed during the pivot experience. This reflexivity process was important to acknowledge and consider my subjectivity and positionality as it adds to the credibility of this study (Schwandt, 2015).

My Own Pivot Experience

My COVID-19 pivot experience started much like the study participants with a bit of shock and chaos. The week before the university announced the mandate to virtual operations was Spring Break for this campus. While many were away on trips or enjoying the slower pace on campus, I was listening to the news wondering what would happen next. I found myself trying to predict what the next steps would be and what I could do as part of my job to support the transition to virtual student services. With the mandate to virtual work, I, too, created an office space at home and secured a more stable internet service. Like some of the participants, I worked longer days than normal as I was focused on work tasks and would lose track of time. There always seemed to be more tasks to accomplish and the opportunity for life outside of work was limited. A limited number of businesses were open so there was little to do outside of home, and I found that work filled my time well. It was also easy to feel isolated and, like Shannon, I found my "professional self" changing. Tasks and meetings on Zoom consumed my time and as Olivia mentioned, Zoom fatigue was real.

Respect for Participants

The experience of conducting this research study and interviewing the participants was life-altering. I was previously acquainted with the participants, but I gained a much deeper level of respect for each of them and the work they accomplish for student success. I learned something new about each participant and their passion for student success and the resiliency they demonstrated through the COVID-19 pivot was impressive.

Future Research

Case study research is not intended to be replicated without careful consideration of the transferability of the parameters of the case (Schwandt, 1985). Even so, there are questions remaining to be explored related to how advising professionals employ concepts from Self-Directed Learning, Technology Acceptance Model (TAM I & II), and the Model of Digital Literacy and Technology Literacy Dimensions (MDLTLD).

Questions to explore include:

- How would adoption and utilization of advising technology be viewed if administrators engaged advisors (functional users) in the technology selection of technology?
- How would adoption and utilization of advising technology be described if training and subsequent professional development focused on ease of use, usefulness, and relevance to the advising position?
- How would the advisors' perception of the COVID-19 pivot and technology adoption be viewed through Dewey's lens of continuity and interaction?
- How might Artificial Intelligence (AI) impact future pivots or transitions particularly related to the importance of human interaction in the advising process?

- How would students relate their COVID-19 pivot experience and preferences for technology in the advising process?
- How would the participants' experiences be viewed using an intergenerational learning lens?

Conclusion

This case study narrated the perceptions of academic advisors who transitioned to all virtual services at the onset of the COVID-19 pandemic to provide answers to the research questions of the case. The study also explored the university-level communication and professional development support available to the advisors during the time of the COVID-19 pivot. The reflections of the participants and the researcher supported several concepts based on the conceptual framework in the study and offered an overall reflection of the COVID-19 pivot for historical purposes.

- Advisors in this study are adult learners who used their experiences as a resource and self-initiated learning opportunities to resolve immediate needs (Brockett & Hiemstra, 1991; Hiemstra & Brockett, 2012; Knowles, 1975).
- Advisors in this study engaged with technology based on the perceived usefulness and perceived ease of use of the technology (Davis, 1989).
- Advisors, post-COVID-19, viewed the pivot experience in an overall positive manner as related in their stories. The reported chaos of the COVID-19 pivot created immediate needs and became an opportunity to learn (Knowles, 1975). Advisors related they gained a new appreciation for technology and work/life balance and were more willing to try new things.

Final Reflection

A final reflection on the COVID-19 pivot experiences of the participants and researcher in this case study is to encourage advising professionals to utilize what was learned during the experience to enhance the academic advising process for students and advising professionals in the post pandemic environment. The experience of the COVID-19 pivot changed the participants and their professional and personal worlds. We all learned new and exciting skills and ways to do things and should consider why we would ever want to return to the past.

References

Aguilar, S. J., Karabenick, S. A., Teasley, S. D., & Baek, C. (2021). Associations between learning analytics dashboard exposure and motivation and self-regulated learning. *Computers & Education*, *162*, Article 104085. https://doi.org/10.1016/j.compedu.2020.104085

AJMC. (2022, July 7). *A timeline of COVID-19 developments in 2020.* https://www.ajmc.com/view/a-timeline-of-covid19-developments-in-2020.

Alshammari, S. H., & Rosli, M. S. (2020). A review of technology acceptance models and theories. *Innovative and Teaching and Learning Journal, 4*(2), 12-22.

Autry, A.J., & Berge, Z. (2011). Digital natives and digital immigrants: Getting to know each other. *Industrial and Commercial Training, 43*(70), 460-466. https://doi.org/10.1108/00197851111171890

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report, 13*(4), 544-559. http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf

Beetham, H., & Sharpe, R. (2011). *Digital literacies workshop* [Paper presented]. JISC Learning Literacies Workshop, Birmingham.

Bennett, L. (2014). Learning from the early adopters: Developing the digital practitioner. *Research in Learning Technology*, *22*. Article 21453. https://doi.org/10.3402/rlt.v22.

Bitterman, J. E. (1985). Academic advising and adult education: An emerging synthesis. *NACADA Journal, 5*(2), 29-33.

Bridgen, S. (2017). Using Systems Theory to understand the identity of academic advising: A case study. *NACADA Journal*, *37*(2), 9-20. https://doi.org/10.12930/NACADA-15-038

Brockett, R. G., & Donaghy, R. C. (2005). *Beyond The Inquiring Mind: Cyril Houle's connection to self-directed learning.* [Paper Presentation]. Adult Education Research Conference, Athens, GA. https://newprairiepress.org/aerc/2005/papers/68/

Brockett, R. G., & Hiemstra, R. (1991). S*elf-direction in adult learning. Perspectives on theory, research, and practice.* Routledge. https://doi.org/10.4324/9780429457319

Burelison, A. H., Rust, M. M., Chaille, M. E., Huff, A. F., Crist, M., & Klosterman, G. (2021). Help us, help students: Supporting advisors during COVID-19. *Journal of the Student Personnel Association at Indiana University*, Spring 2021, 98-107. https://scholarworks.iu.edu/journals/index.php/jiuspa/article/view/32524.

Caruth, G. D. (2018). Student engagement, retention, and motivation: Assessing academic success in today's college students. *Participatory Educational Research*, *5*(1), 17-30. http://dx.doi.org/10.17275/per.18.4.5.1

Center for Disease Control and Prevention. (2022, July 18). *CDC Museum COVID-19 Timeline*. https://www.cdc.gov/museum/timeline/covid19.html.

Charlton, J. (2022, December). The future of advising: Strategies to support student success. *The Chronicle of Higher Education*.

Chen, S., Li, S., & Li, C. (2011). Recent research in Technology Acceptance Model: A literature review. *Australian Journal of Business and Management Research, 2*(9), 124-127.

Coldwell-Neilson, J. (2018). Digital Literacy Expectations in Higher Education. In M. Campbell, J. Willems, C. Adachi, D. Blake, I. Doherty, S. Krishnan, S. Macfarlane, L. Ngo, M.

O'Donnell, S. Palmer, L. Riddell, I. Story, H. Suri & J. Tai (Eds.), *Open Oceans: Learning without borders* (pp. 103-112). Proceedings ASCILITE 2018 Geelong.

Cook, S. (2001). *A chronology of academic advising in America.* https://journals.psu.edu/mentor/article/view/61722/61367

Crabtree, B. F., & Miller, W. L. (Eds,). (1999). *Doing qualitative research (2nd ed.)*. Sage.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340. https://doi.org/10.2307/249008

Desouza, K. C., & Smith, K. L. (2016). Predictive analytics: Nudging, shoving, and smacking behaviors in higher education. *EDUCAUSE Review, 51*(5), 10-20. https://er.educause.edu/-/media/files/articles/2016/8/erm1651.pdf

Dewey, J. (1938). *Experience and education*. Collier-MacMillan, Canada Ltd.

Dofkova, R. (2016) Mathematical and digital literacy in prospective mathematics teachers training. In L. Gómez Chova, A. López Martínez, I. Candel Torres & IATED Academy (Eds.), EDULEARN16 Proceedings (pp. 1023-1028). 8th International Conference on Education and New Learning Technologies, Barcelona, Spain. https://doi.org/10.21125/edulearn.2016.1207

Drake, J. (2011). The role of academic advising in student retention and persistence. *College Student Education International, (16)*3, 8-12. https://doi.org/10.1002/abc.20062

Durdella, N. (2019). *Qualitative dissertation methodology: A guide for research design and methods.* Sage.

Farr, T., & Cunningham, L. (Eds.). (2017). *Academic advising core competencies guide.* NACADA: The Global Community for Academic Advising.

Flood, T., & Black, T. (2011). Mobile technology and the unsettled ocean of student services. *College and University, 86*(3), 51–56.

Fries-Britt, S. (2008). Advising though a wave of change. *NACADA Journal*, *28*(1), 3-7. https://doi.org/10.12930/0271-9517-28.1.3

Gaines, T. (2014). Technology and academic advising: Student usage and preferences. *NACADA Journal*, *34*(1), 43-49. https://doi.org/10.12930/NACADA-13-011

Gallagher, P. J. & Demos, G. D. (Eds.). (1983). Handbook of counseling in higher education. Praeger

Gillispie, B. (2003). History of academic advising. NACADA Clearinghouse of Academic Advising Resources. http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/History-ofacademic-advising.aspx

Gordon, V. N. (1992). Handbook of Academic Advising. Greenwood Press.

Ghanem, R., & Rao, S. (2021). Academic advising overview in higher education (Literature review). *International Journal of Advanced Academic Studies, 3*(1), 120-128. https://www.allstudyjournal.com/archives/2021.v3.i1.B.477

Gordon, V. N. (2004). The evolution of academic advising: One institution's historical path. *NACADA Journal*, *24*(1 & 2), 17-23.

Gordon, V. N., Habley, W. R., & Grites, T. J. (2008) *Academic advising: A comprehensive handbook.* Jossey-Bass.

Habley, W. R. (1986). Show us the future: The challenges facing academic advising. *NACADA Journal, 6*(2)*,* 5-11.

Handley, F. J. (2018). Developing digital skills and literacies in UK higher education: Recent developments and a case study of the digital literacies framework at the University of

Brighton, UK. *Publicaciones, 48*(1), 109-126. https://doi.org/10.30827/publicaciones.v48i1.7327

Harkavy, I., & Hodges, R. A. (2022). Higher education and COVID-19: Global and local responses. *Change: The Magazine of Higher Learning*, *54*(2), 5-11. http://dx.doi.org/10.1080/00091383.2022.2030156

Herodotou, C., Rienties, B., Boroowa, A., Zdrahal, Z., & Hlosta, M. (2019). A large-scale implementation of predictive learning analytics in higher education: The teachers' role and perspective. *Educational Technology Research and Development*, *67*(5), 1273-1306. https://doi.org/10.1007/s11423-019-09685-0

Hiemstra, R., & Brockett, R. G. (2012). Reframing the meaning of Self-Directed Learning: An updated modeltt. *Adult Education Research Conference*. https://newprairiepress.org/aerc/2012/papers/22

Hossler, D. (2006). Managing student retention: Is the glass half full, half empty, or simply empty. *College and University*, *81*(2), 11-14.

Huberman, A. M., & Miles, M. B. (1994). Data management and analysis methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 428–444). Sage.

Hunter, M. S., & White, E. R. (2004). Could fixing academic advising fix higher education? *About Campus, 9*(1), 20-25. https://doi.org/10.1002/abc.91

Jamelske, E. (2009). Measuring the impact of a university first-year experience program on student GPA and retention. *Higher Education*, *57*(3), 373-391. https://doi.org/10.1007/s10734-008-9161-1

Johnson, N., Veletsianos, G., & Seaman, J. (2020). U.S. faculty and administrators' experiences and approaches in the early weeks of the COVID-19 pandemic. *Online Learning, 24*(2), 6-21. https://doi.org/10.24059/olj.v24i2.2285

Jones, K. (2019). Advising the whole student: eAdvising analytics and the contextual suppression of advisor values. *Education and Information Technologies,* 24, 437–458. (https://doi.org/10.1007/s10639-018-9781-8

Kraft-Terry, S., & Kau, C. (2016). Manageable steps to implementing data-informed advising. *NACADA Clearinghouse*. http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Manageable-Steps-to-Implementing-Data-Informed-Advising.aspx

Klepfer, K., & Hull, J. (2012). High school rigor and good advice: Setting up students to succeed. Center for Public Education, National School Boards Association. https://iei.nd.edu/assets/84273/high_school_rigor_and_good_advice_setting_up_students_to_succeed_full_report.pdf

Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers.* Association Press.

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy*. Cambridge Adult Education.

Larson, J., Johnson, A., Aiken-Wisniewski, S. A., & Barkemeyer, J. (2018). What is academic advising? An application of analytic induction. *NACADA Journal*, *38*(2), 81-93. https://doi.org/10.12930/0271-9517-38.2.81

Leonard, M. J. (2004). Results of a national survey on technology in academic advising. *NACADA Journal*, *24*(1&2), 24-33.

Light, R. J. (2001). Good mentoring and advising. *Making the most of college: Students speak their minds* (pp. 81–103). Harvard University Press. https://doi.org/10.2307/j.ctvjnrw16.7

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

Lindeman, E. C. (1984). *The meaning of adult education.* Ravenio Books.

Loeng, S. (2020). Self-Directed Learning: A core concept in adult education. *Education Research International*, *(2020)*, Article ID 3816132. https://www.hindawi.com/journals/edri/2020/3816132/

Lowenstein, M. (2013). Envisioning the future. In J. K. Drake, P. Jordan, & M. A. Miller (Eds.), *Academic advising approaches: Strategies that teach students to make the most of college,* (pp. 243– 258). Jossey-Bass.

McGill, C. M., Heikkila, M., & Lazarowicz, T. (2020). Professional development, performance expectations and academic advisors' perceptions of relational skills: A sequential explanatory mixed methods study. *New Horizons in Adult Education and Human Resource Development*, *32*(4), 50-69. https://doi.org/10.1002/nha3.20296

McMurtrie, B., & Supiano, B. (2022, December). The future of advising: Strategies to support student success. *The Chronicle of Higher Education*.

Meredith, M. (2004). Why do universities compete in the ratings game? An empirical analysis of the effect of the U. S. News and World Report college rankings. *Research in Higher Education, 45(5),* 443-461.

Merriam, S. B. (1988) *Case study research in education.* Jossey-Bass.

Merriam, S. B., & Simpson, E. L. (1995). *A guide to research for educators and trainers of adults.* Krieger Publishing Company.

Merriam, S. B. (1998). *Qualitative research and case study applications in education.* Jossey-Bass.

Merriam, S. B. (2001). Andragogy and Self-directed Learning: Pillars of adult learning theory. *New Directions for Adult and Continuing Education, (89)*3, 3-13.

Merriam, S. B. & Bierema,L. L. (2014). *Adult learning: Linking theory and practice.* Jossey-Bass.

Merriam, S. B., & Tisdell, E. J. (2016). Designing your study and selecting a sample. *Qualitative Research: A Guide to Design and Implementation*, *67*(1), 73-104.

Merriam-Webster. (n.d.). Technology. In Merriam-Webster.com dictionary. https://www.merriam-webster.com/dictionary/technology

Miller, H., Bosselait, L., Venturato, L, Irion, K., Schmidt, N., DiGeronimo, J., & Pritchard, T., (2019). Benefits of peer mentoring in prelicensure nursing education, *Nurse Educator, 44*(3), 159-163. https://doi.org/10.1097/NNE.0000000000000573

Mu, L., & Fosnacht, K. (2019). Effective advising: How academic advising influences student learning outcomes in different institutional contexts. *The Review of Higher Education, 42*, 1283 - 1307. https://doi.org/10.1353/rhe.2019.0066

NACADA: The Global Community for Academic Advising. (2017). *NACADA Academic Advising Core Competencies Model.* https://www.nacada.ksu.edu/Resources/Pillars/CoreCompetencies.aspx

NACADA: The Global Community for Academic Advising. (2022, July 17) *Academic Advising Resources in Response to COVID-19.* https://nacada.ksu.edu/Resources/Clearinghouse/COVID-Resources.aspx.

Nutt, C. (2003). Academic advising and student retention and persistence. *NACADA Clearinghouse of Academic Advising Resources.* https://www.nacada.ksu.edu/tabid/3318/articleType/ArticleView/articleId/636/article.aspx

Pal, D., & Vanijja, V. (2020). Perceived usability evaluation of Microsoft Teams as an online learning platform during COVID-19 using system usability scale and technology acceptance model in India. *Children and Youth Services Review, 119*, Article 105535. https://doi.org/10.1016/j.childyouth.2020.105535

Pascarella, E. T. & Terenzini, P. T. (2005). *How college affects students: A third decade of research. Volume 2*. Jossey-Bass.

Pasquini, L. (2011). Implications for use of technology in academic advising. *NACADA Clearinghouse for Academic Advising Resources.* http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Implications-for-use-of-technology-in-advising-2011-National-Survey.aspx

Ross, T., & Kena, G. (2012). Higher education: Gaps in access and persistence study. National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2012/2012046.pdf

Ross-Gordon, J. M., Rose, A. D., & Kasworm, C. E. (2017). *Foundations of adult and continuing education* (Vol. 1). Jossey-Bass.

Schwandt, T. A. (2015). *The Sage dictionary of qualitative inquiry* (4th ed.). SAGE.

Seres, L., Pavlicevic, V., & Tumbas, P. (2018). *Digital Transformation of Higher Education: Competing on Analytics*. In L. Gómez Chova, A. López Martínez, I. Candel Torres & IATED Academy (Eds.), Proceedings of INTED2018 Conference 5th -7th March 2018, Valencia, Spain. https://doi.org/10.21125/inted.2018.2348

Shachak, A., Kuziemsky, C., & Petersen, C. (2019). Beyond TAM and UTAUT: Future directions for HIT implementation research. *Journal of Biomedical Informatics, (100)* 103315. https://doi.org/10.1016/j.jbi.2019.103315.

Sharpe, R., & Beetham, H. (2010). Understanding students' uses of technology for learning: Towards creative appropriation. In *Rethinking Learning for a Digital Age* (pp. 107-121). Routledge.

Shih, H. P. (2004). Extended technology acceptance model of internet utilization behavior. *Information & Management*, *41*(6), 719-729. https://doi.org/10.1016/j.im.2003.08.009

Society of Human Resources. (n.d.). Developing employees. https://www.shrm.org/resourcesandtools/tools-and samples/toolkits/pages/developingemployees.aspx

Soltovets, E., Chigisheva, O., & Dmitrova, A. (2020). The role of mentoring in digital literacy development of doctoral students at British universities. *Eurasia Journal of Mathematics, Science and Technology Education, 16*(4) Article 1839. https://doi.org/10.29333/ejmste/117782

Stake, R. E., (1995). *The art of case study research*. Sage.

Steele, G. E. (2018). Student success: Academic advising, student learning data, and technology. *New Directions for Higher Education*, *2018*(184), 59-68. https://doi.org/10.1002/he.20303

Tenny, S., Brannan, J. M, Brannan, G.D. (2022). Qualitative Study. In StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 January. https://www.ncbi.nlm.nih.gov/books/NBK470395/

The Carnegie Classification of Institutions of Higher Education (2022, July). About Carnegie classification. https://carnegieclassifications.acenet.edu/

Thomas, C. (2017). Academic advising and institutional success. *Academic Advising Today, 40*(1). https://nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Academic-Advising-and-Institutional-Success.aspx

Tinto, V. (2016). From retention to persistence. *Inside Higher Ed.* https://www.insidehighered.com/views/2016/09/26/how-improve-studentpersistence-and-completion-essay

Titus, M. A. (2004). An examination of the influence of institutional context on student persistence at 4-year colleges and universities: A multilevel approach. *Research in Higher Education*, *45*(7), 673-699. https://doi.org/10.1023/B:RIHE.0000044227.17161.fa

Tough, A. (1971). *The adult's learning projects: A fresh approach to theory and practice in adult education.* Ontario Institute for Studies in Education.

Troxel, W. G., Bridgen, S., Hutt, C., & Sullivan-Vance, K. A. (2021). Transformations in academic advising as a profession. *New Directions for Higher Education*, *2021*(195-196), 23-33. https://doi.org/10.1002/he.20406

Troxel, W. G., & Kyei-Blankson, L. (2020). The "typical" advising session: An exploration of consistency. *NACADA Research Report 201*. NACADA.

Turner, D., & Farr, T. (2020). Division of general studies: A reflection on 2020 pandemic. *Academic Advising Today*, *43*(3). https://nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Division-of-General-Studies-A-Reflection-on-2020-Pandemic.aspx

Underwood, Z. W., & Anderson, M. (2018). Technology and academic advising: A case for embracing change in academic advising. *Academic Advising Today*, *41*(1). https://nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Technology-and-Academic-Advising-A-Case-for-Embracing-Change-in-Academic-Advising.aspx

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model, Four longitudinal field studies. *Management Science, 46*(2) 186-204. https://doi.org/10.1287/mnsc.46.2.186.11926

Venit, E. (2017, July 19). *What is a student success management system?* https://eab.com/insights/blogs/student-success/what-is-a-student-success-management-system/#:~:text=A%20student%20success%20management%20system%20is%20a%20comprehensive%20technology%20that,enrollment%20to%20graduation%20and%20beyond

Walker, S., & Patel, A.J.F. (2018). More than skills: What can approaches to digital literacy learn from academic literacies? *Journal of Learning and Teaching in Higher Education, 1*(1). 93-100. https://doi.org/10.29311/jlthe.v1i1.856

Walsh, K. (2017). Self-directed learning at the point of care. *InnovAiT: Education and Inspiration for General Practice*, *10*(3), 178–182. https://doi.org/10.1177/1755738016679441

Wang, C. X., & Houdyshell, M. (2021). Remote academic advising using synchronous technology: Knowledge, experiences, and perceptions from students. *NACADA Journal, 41*(2), 40-52. https://doi.org/10.12930/NACADA-20-27

WebCE. (2022, July 16). *What Is Professional Development and Why Is It Important?* WebCE. https://www.webce.com/news/2020/07/16/professional-development

White, E. R. (2015). Academic advising in higher education: A place at the core. *The Journal of General Education, 64*(4), 263-277. https://doi:10.1353/jge.2015.0024

Williamson, B. (2019). Policy networks, performance metrics and platform markets: Charting the expanding data infrastructure of higher education. *British Journal of Educational Technology, 50*(6), 2794–2809. https://doi.org/10.1111/bjet.12849

World Health Organization (2022, July 19). *Coronavirus disease (COVID-19) pandemic*. https://www.who.int/emergencies/diseases/novel-coronavirus-2019

Yin, R. K. (2018). *Case study research and applications: Design methods.* Sage.

Yu, H. (2015). Student retention at two-year community colleges: A structural equation modeling approach. *International Journal of Continuing Education and Lifelong Learning*, *8*(1), 85-101.

Zarges, K. M., Adams, T. A., Higgins, E. M., & Muhovich, N. (2018). Assessing the impact of academic advising: Current issues and future trends. *New Directions for Higher Education, 2018*(184), 47–57. https://doi-org.spot.lib.auburn.edu/10.1002/he.20302

Zong, C., & Davis, A. (2022). Modeling university retention and graduation rates using IPEDS. *Journal of College Student Retention: Research, Theory & Practice, (0)*0. 1-23. https://doi.org/10.1177/15210251221074379

Appendix A

Academic Advisor and Student Services Coordinator Job Descriptions

Job Title: **Advisor I, Academic** Job Family: No Family

Job Code:

Job Summary

Under immediate supervision, advises students on course selection, requirements for selected areas of concentration, and post-college plans to help meet their educational needs and realize student scholastic goals.

Essential Functions

1. Advises students in matters related to goals, policies, choice of curriculum, course load, study habits, course scheduling, academic action, and problem resolution.
2. Interprets University policies, procedures, and curriculum to students, faculty, and staff.
3. Works with others in order to provide students timely information on educational options and University policies.
4. Assists with student orientations.
5. Makes appropriate referrals.
6. Verifies, certifies, and/or completes appropriate student related forms and processes.
7. Maintains student and advising records in accordance with State/Federal law and University regulations
8. May clear students for graduation.
9. Maintains student data security.
10. Utilizes appropriate technology to support effective advising.
11. Actively involved in professional development opportunities at the campus level (at minimum).
12. Develops contacts with departments and faculty.

Supervisory Responsibility

May be responsible for training, assisting or assigning tasks to others. May provide input to performance reviews of other employees.

The above essential functions are representative of major duties of positions in this job classification. Specific duties and responsibilities may vary based upon departmental needs. Other duties may be assigned similar to the above consistent with the knowledge, skills and abilities required for the job. Not all of the duties may be assigned to a position.

Minimum Required Education and Experience

	Minimum	Focus of Education/Experience
Education	Four-year college degree	General. For positions that require the employee to teach, a Master's degree will be required.

Experience (yrs.) 0

Substitutions allowed for Education:

Indicated education is required; no substitutions allowed.

Substitutions allowed for Experience:

Indicated experience is required; no substitutions allowed.

Minimum Required Knowledge

Knowledge acquired through the course of undergraduate academic endeavors.

Certification or Licensure Requirements

None Required.

Physical Requirements/ADA

No unusual physical requirements. Requires no heavy lifting, and nearly all work is performed in a comfortable indoor facility.

Routine deadlines; usually sufficient lead time; variance in work volume seasonal and predictable; priorities can be anticipated; some interruptions are present; involves occasional exposure to demands and pressures from persons other than immediate supervisor.

Job frequently requires sitting, talking, hearing, handling objects with hands, and lifting up to 10 pounds.

Job occasionally requires standing, walking, reaching, climbing or balancing, stooping/kneeling/crouching/crawling, .

Vision requirements: Ability to see information in print and/or electronically.

Date: 3/27/2023

Job Title: **Advisor II, Academic**

Job Code:

FLSA status: Exempt

Job Family:

Grade SR07:

Job Summary

Under general supervision, advises students on course selection, requirements for selected area of concentration, and post-college plans to help meet educational needs and realize student scholastic goals. Develops and oversees advising functions, applies in-depth and comprehensive knowledge, and may serve as mentor/trainer of new Advisors and support staff.

Essential Functions

1. Advises students in matters related to goals, policies, choice of curriculum, course load, study habits, course scheduling, academic action and problem resolution.
2. Interprets University policies, procedures, and curriculum to students, faculty, and staff.
3. Works with others in order to provide students timely information on educational options and University policies.
4. Assists with student orientations.
5. Makes appropriate referrals.
6. Verifies, certifies, and/or completes appropriate student-related forms, and processes.
7. Maintains student and advising records in accordance with State/Federal law and University regulations.
8. May clear students for graduation.
9. Maintains student data security.
10. Utilizes appropriate technology to support effective advising.
11. Actively involved in professional development opportunities at the campus level.
12. Develops contacts with departments and faculty.
13. Participates in professional development program at the Regional or National level, or demonstrates leadership at the campus level.
14. Facilitates college- and/or university-level advising projects.
15. Represents the academic unit through participation on University committees, caucus leadership, and/or teaching courses.

Supervisory Responsibility

May be responsible for training, assisting or assigning tasks to others. May provide input to performance reviews of other employees.

The above essential functions are representative of major duties of positions in this job classification. Specific duties and responsibilities may vary based upon departmental needs. Other duties may be assigned similar to the above consistent with the knowledge, skills and abilities required for the job. Not all of the duties may be assigned to a position.

Minimum Required Education and Experience

	Minimum	Focus of Education/Experience
Education	Four-year college degree	General. For positions that require the employee to teach, a Master's degree will be required.
Experience (yrs.)	3	Experience in advising of which 2 years includes full-time primary duties of advising in higher ed.

Substitutions allowed for Education:

Indicated education is required; no substitutions allowed.

Substitutions allowed for Experience:

When a candidate has the required education, but lacks the required experience, a related and relevant graduate degree may substitute for two (2) year's experience.

Minimum Required Knowledge

In-depth and comprehensive knowledge of advising policies, practices, and procedures at the post-secondary level.

Certification or Licensure Requirements

None required.

Physical Requirements/ADA

No unusual physical requirements. Requires no heavy lifting, and nearly all work is performed in a comfortable indoor facility.

Routine deadlines; usually sufficient lead time; variance in work volume seasonal and predictable; priorities can be anticipated; some interruptions are present; involves occasional exposure to demands and pressures from persons other than immediate supervisor.

Job frequently requires sitting, talking, hearing, handling objects with hands, and lifting up to 10 pounds.

Job occasionally requires standing, walking, reaching, climbing or balancing, stooping/kneeling/crouching/crawling, .

Vision requirements: Ability to see information in print and/or electronically.

Date: 3/7/2023

Job Title:	**Advisor III, Academic**	Job Family:	
Job Code:		Grade SR08:	
FLSA status:	Exempt		

Job Summary

Under minimal supervision, advises students on course selections, requirements for selected areas of concentration and post-college plans to help meet their educational needs and realize their scholastic goals. Oversees consistent application of advising policies and procedures. Conducts comprehensive academic, career, and other student support services. Applies in-depth and comprehensive knowledge in the resolution of complex situations. Acts as a mentor and trainer to other Academic Advisors. Serves as a team leader and may supervise other Advisors in the absence of or at the request of the direct supervisor, but serves as an actual Advisor the majority of the time.

Essential Functions

1. Advises students in matters related to goals, policies, choice of curriculum, course load, study habits, course scheduling, academic action and problem resolution.
2. Interprets University policies, procedures, and curriculum to students, faculty, and staff.
3. Works with others in order to provide students timely information on educational options and University policies.
4. Assists with student orientations.
5. Makes appropriate referrals.
6. Verifies, certifies, and/or completes appropriate student-related forms, and processes.
7. Maintains student and advising records in accordance with State/Federal law and University regulations.
8. May clear students for graduation.
9. Maintains student data security.
10. Utilizes appropriate technology to support effective advising.
11. Actively involved in professional development opportunities at the campus level.
12. Develops contacts with departments and faculty.
13. Participates in professional development program at the Regional or National level, or demonstrates leadership at the campus level.
14. Facilitates college- and/or university-level advising projects.
15. Represents the academic unit through participation on University committees, caucus leadership, and/or teaching courses.
16. Develops goals and objectives for improvement of the advising unit in conjunction with direct supervisor; implements the plans for improvement of advising functions and models within the college.
17. Provides leadership for campus-wide advising projects.
18. Networks with other departments and/or colleges and the Office of the Director of Advising to ensure a coordinated approach to advising and retention.

Supervisory Responsibility

May supervise employees but supervision is not the main focus of the job.

The above essential functions are representative of major duties of positions in this job classification. Specific duties and responsibilities may vary based upon departmental needs. Other duties may be assigned similar to the above consistent with the knowledge, skills and abilities required for the job. Not all of the duties may be assigned to a position.

Minimum Required Education and Experience

	Minimum	Focus of Education/Experience
Education	Four-year college degree	General. For positions that require the employee to teach, a Master's degree will be required.
Experience (yrs.)	5	Experience in advising of which 4 years includes full-time primary duties of advising in higher ed.

Substitutions allowed for Education:

Indicated education is required; no substitutions allowed.

Substitutions allowed for Experience:

When a candidate has the required education, but lacks the required experience, a related and relevant graduate degree may substitute for two (2) years experience.

Minimum Required Knowledge

In-depth and comprehensive knowledge of advising policies, practices, and procedures at the post-secondary level.

Certification or Licensure Requirements

None required.

Physical Requirements/ADA

No unusual physical requirements. Requires no heavy lifting, and nearly all work is performed in a comfortable indoor facility.

Routine deadlines; usually sufficient lead time; variance in work volume seasonal and predictable; priorities can be anticipated; some interruptions are present; involves occasional exposure to demands and pressures from persons other than immediate supervisor.

Job frequently requires sitting, talking, hearing, handling objects with hands, and lifting up to 10 pounds.

Job occasionally requires standing, walking, reaching, climbing or balancing, stooping/kneeling/crouching/crawling, .

Vision requirements: Ability to see information in print and/or electronically.

Date: 3/7/2023

Job Title:	**Coord, Student Services**	Level I Level II Level III
Job Code:		
FLSA status:	Exempt	

Job Summary

Coordinates projects, programs, and activities and provides services and/or advisement (one or more of the essential functions listed below) for potential and/or current students.

Essential Functions

1. Assists and advises students with academic related issues such as (but not limited to) University or college/school policies and procedures, course selection, supplemental instruction, registration, graduation application, financial aid, scholarship opportunities/processes, certification programs, assistantships, internships, and/or job skill development.
2. Reviews and maintains student records such as coordinating input, evaluating transcripts, applications for admission job placement activities, and/or generating reports.
3. Coordinate activities related to field experiences, internships and job placement of graduates.
4. Coordinates the development and/or preparation of informational materials relevant to students, alumni, and/or donors such as (but not limited to) updating websites, creating brochures, press releases, or newsletters.
5. Recruits or coordinates the recruitment of students for programs and/or projects.
6. Coordinates student related programs and events for college/school to include (but not limited to) open-houses, award ceremonies, career days, student organizations, etc.
7. May assist in educational related activities related to the accreditation process.
8. May coordinate and/or teach UNIV courses within the incumbent's home college or school.

Supervisory Responsibility

May supervise employees but supervision is not the main focus of the job.

The above essential functions are representative of major duties of positions in this job classification. Specific duties and responsibilities may vary based upon departmental needs. Other duties may be assigned similar to the above consistent with the knowledge, skills and abilities required for the job. Not all of the duties may be assigned to a position.

Job Family Levels

Level	Responsibility	Knowledge	Education and Experience*
I	Under immediate supervision, performs standard tasks using established methods, principles, concepts and procedures related to a specialized field. Judgments are made on routine matters of relatively small impact.	Knows fundamental concepts, practices and procedures of particular field of specialization.	Bachelor's degree in discipline appropriate to position with no experience.
II	Under close supervision, performs varied duties and assignments involving some judgment. Resolves routine questions or problems, referring only complex issues to higher level. Some evaluation, originality and ingenuity required.	Knows and applies fundamental concepts, practices, and procedures of particular field of specialization, with awareness of related fields.	Bachelor's degree in discipline appropriate to position plus 2 years experience. Experience must include at least 2 years at the preceding level or equivalent.
III	Under minimal supervision, performs complex assignments and fulfills broad respons bilities where required outcomes are defined, but methods and procedures may vary based on professional judgment or precedent. Considerable latitude for unreviewed action. Confers with supervisor on unusual matters. Coordinates the work of others on projects and may assign work to and assist less experienced professionals or support staff. May act in an advisory capacity to managers or faculty.	Possesses and applies a broad knowledge of principles, practices and procedures of a particular field of specialization to the completion of difficult assignments. Also possesses knowledge of related fields and areas of operation which affect, or are affected by, own area.	Bachelor's degree in discipline appropriate to position plus 4 years experience. Experience must include at least 2 years at the preceding level or equivalent.

* See the "Minimum Required Education and Experience" section of the job description for any substitutions that may be allowed for education and experience.

Minimum Required Education and Experience

Level I Bachelor's degree in discipline appropriate to position with no experience.

Level II Bachelor's degree in discipline appropriate to position plus 2 years experience. Experience must include at least 2 years at the preceding level or equivalent.

Level III Bachelor's degree in discipline appropriate to position plus 4 years experience. Experience must include at least 2 years at the preceding level or equivalent.

Focus of Education	Focus of Experience
No specific discipline.	Experience in advising and/or coordinating student services or experience related to the specific academic area

Substitutions allowed for Education:

Indicated education is required; no substitutions allowed.

Substitutions allowed for Experience:

When a candidate has the required education, but lacks the required experience, they may normally apply additional appropriate education toward the experience requirement, at a rate of one (1) year relevant education per year of required experience.

Minimum Required Knowledge

See Job Family Levels

Certification or Licensure Requirements:

Valid driver's license may be required for specific positions.

Physical Requirements/ADA

No unusual physical requirements. Requires no heavy lifting, and nearly all work is performed in a comfortable indoor facility.

Routine deadlines; usually sufficient lead time; variance in work volume seasonal and predictable; priorities can be anticipated; some interruptions are present; involves occasional exposure to demands and pressures from persons other than immediate supervisor.

Job frequently requires sitting, talking, hearing, handling objects with hands, .

Job occasionally requires standing, walking, reaching, climbing or balancing, stooping/kneeling/crouching/crawling, and lifting up to 50 pounds.

Vision requirements: Ability to see information in print and/or electronically.

Date: 5/3/2023

Appendix B

Interview Protocol

1. Thank you for being part of this research study. We have discussed the research process and you have agreed to participate. I want to remind you that you may withdraw from the study at any time without any retribution or consequence. Will you state your pseudonym and confirm you agree to participate?

Advisor experience prior to COVID-19 pivot

2. Tell me how you came to be an academic advisor.
3. Tell me about your typical day as an advisor before the COVID-19 pivot.
4. Tell me about the modality of your appointments and how appointments were scheduled before the pivot.
5. Tell me about using technology in the advising session prior to the pivot.

The COVID-19 pivot

6. How would you describe how you pivoted around March 16, 2020, when the university mandated all student services and classes move to a virtual modality?
7. What actions did you take to make the pivot?
8. From whom did you seek help or ask questions about technology during your pivot

Advising during and after the COVID-19 pivot

9. How did scheduling appointments change in the virtual work environment?
10. How did your typical day change once you were having all virtual advising sessions?
11. During the pandemic how did you find that advising changed?
12. Did students present with different needs than before?
13. How did you use technology to support students with those needs?

Acceptance and learning about new technology

14. How do you generally feel about technology?
15. Tell me about a time you encountered a new technology.
16. How did you learn about using new technology?
17. What strategies did you use to learn how to new technology?
18. Tell me about any new technologies you needed to implement to support your virtual work environment? Please identify those technologies and describe how you learned to use them.

Returning to campus

19. As academic advising services have returned to campus at least part-time, tell me how you use technology in your current advising practice.
20. What are you doing differently from before the pandemic and what has returned to the same process as before?
21. Tell me how you feel your technology skills have changed since the period of remote virtual work?
22. In what ways do you feel more comfortable with using technology in advising?
23. In what ways do you feel more challenged?
24. Considering the experience learning about new technologies you described earlier, tell me how you would design an experience that would best help you learn about technology in the future?
25. What would motivate you to learn about or implement new technology into your advising practice?

26. In a few sentences, tell me about your COVID-19 transition, learning about new technology, and your future regarding advising technology?

Wrap up and thank you

27. Thank you for participating in this study. That concludes my questions. Do you have any questions for me regarding this research study?

Appendix C

University COVID-19 Communication

Communication	Date Sent	Message Type
Travel Restrictions	3/4/2020	Other
Contingency Plans	3/6/2020	Academic
Update on Remote Instruction	3/12/2020	Academic
AU to transition to remote instruction 3-12 to 4-10	3/12/2020	Academic
Regarding Transition to Virtual Learning	3/13/2020	Academic
Preparing for Remote Instruction	3/14/2020	Academic
Auburn Research	3/16/2020	Research
COVID-19 Update to Faculty	3/17/2020	Operations
Employee Pay	3/17/2020	Human Resources
AU COVID-19 Update	3/17/2020	Operations Services
Facilities Management Support to Campus	3/17/2020	Operations
Bookstore - Students in Need	3/18/2020	Academic
Clarification about Operations	3/18/2020	Operations
RESOURCE - Virtual Caucus	3/18/2020	Academic Services
COVID-19 Updates	3/19/2020	Academic
SU and W policy communication to students	3/20/2020	Academic
President Message to Parents - not actual email	3/20/2020	Other
COVID-19 Salary Guidance for Grants/Contracts	3/20/2020	Research
Extends Remote Instruction Sp20	3/20/2020	Operations
Provost to Faculty about SU	3/20/2020	Academic
Cabinet Minutes	3/20/2020	Cabinet Minutes
AU extending remote instruction until end of semester	3/20/2020	Academic
COVID 19 Update	3/21/2020	Other
Cabinet Minutes	3/21/2020	Cabinet Minutes
COVID 19 Update	3/22/2020	Other
Cabinet Minutes	3/23/2020	Cabinet Minutes
Employee Screening Questions	3/23/2020	Human Resources Operations
AU Offering Summer Courses	3/23/2020	Academic
President Cabinet notes	3/24/2020	Cabinet Minutes
COVID-19 Updates - Refunds for Housing and Dining (Pro-rated) announced	3/24/2020	Services
Cabinet Minutes	3/25/2020	Cabinet Minutes
Academic Support Available	3/25/2020	Academic Services

President Cabinet	3/26/2020	Cabinet Minutes
AU Extends Alternate Operations	3/26/2020	Operations
Coronavirus Communications	3/27/2020	Other
Update to Faculty	3/27/2020	Academic
Summer instruction, commencement, study abroad	3/27/2020	Academic
President's cabinet meeting	3/27/2020	Cabinet Minutes
Office of Innovation Advancement and Commercialization	3/27/2020	Other
Faculty Helping	3/28/2020	Other
Safety in Move Out	3/29/2020	Operations
President's cabinet meeting	3/30/2020	Cabinet Minutes
President's cabinet meeting	3/30/2020	Cabinet Minutes
Safety measures, wash hands	3/30/2020	Other
S/U Grading Details Posted to Provost Page	3/31/2020	Academic
Cabinet Meeting Minutes	4/1/2020	Cabinet Minutes
Coping Strategies	4/1/2020	Other
Good to Know	4/1/2020	Operations
Distance Instruction Q&A	4/1/2020	Academic
President's Cabinet Minutes	4/2/2020	Cabinet Minutes
CPAP to ventilator story	4/2/2020	Other
Ways you can help	4/3/2020	Other
P & T extension request announced on Provost webage	4/3/2020	Academic
Shelter in place order, buildings locked	4/3/2020	Operations
President Cabinet Minutes	4/6/2020	Cabinet Minutes
HR, mental health and coping resources	4/6/2020	Services
AU urges public to be proactive	4/6/2020	Other
President Cabinet Meeting	4/7/2020	Cabinet Minutes
Coaches teamwork PSA	4/7/2020	Other
Alumni message	4/8/2020	Other
Modifications to all academic policies	4/7/2020	Academic
President’s Cabinet	4/8/2020	Cabinet Minutes
EAMC needs supplies	4/8/2020	Other
President's Cabinet	4/9/2020	Cabinet Minutes
Campus events canceled	4/9/2020	Operations
President's Cabinet	4/10/2020	Cabinet Minutes
Help make masks - OLLI	4/13/2020	Other
Message to Faculty	4/10/2020	Other
Student fee waived for summer, grad tests waived, summer camps closed	4/10/2020	Other
Grad tests waived for admissions	4/10/2020	Academic
Cabinet Minutes	4/13/2020	Cabinet Minutes
Auburn suspends student fees	4/14/2020	Other

President's Cabinet	4/15/2020	Cabinet Minutes
Keep physical distancing	4/15/2020	Other
Auburn experts	4/16/2020	Other
President's Cabinet	4/17/2020	Cabinet Minutes
Update from Admissions	4/17/2020	Other
Message from President	4/17/2020	Other
Collection of Policy Changes PUBLISHED ONLINE	4/17/2020	Academic
Provost message to faculty	4/17/2020	Other
Tips for keeping kids active	4/17/2020	Other
FFRC notice legal mandate to share	4/17/2020	Human Resources
President's Cabinet	4/20/2020	Cabinet Minutes
Virtual 4-H	4/20/2020	Other
Flexible Spending Account	4/21/2020	Human Resources
Tips to business owners from faculty	4/21/2020	Other
President's Cabinet	4/22/2020	Cabinet Minutes
Message from BOT	4/22/2020	Other
AU fighting COVID	4/23/2020	Other
Tuition Payment Plan	4/24/2020	Other
Cabinet Minutes	4/24/2020	Cabinet Minutes
Provost message to faculty	4/24/2020	Academic
Making masks	4/24/2020	Other
Timing of decision for summer 3 and fall	4/24/2020	Operations
Message from PPT Smith (BOT) and fall tuition plan released	4/24/2020	Other
HR recognize employees	4/27/2020	Human Resources
President finances	4/27/2020	Other
Cabinet Minutes	4/27/2020	Cabinet Minutes
Extension of alternative operations	4/27/2020	Operations
Admissions virtual tour featured	4/27/2020	Other
Extension of operations	4/27/2020	Operations
Extension of operations - AU news	4/27/2020	Operations
Supervisor guidance on alternative operations post 9 May	4/27/2020	Operations
Extension of operations - COVID 19 updates	4/28/2020	Operations
AU research	4/29/2020	Research
Cabinet Minutes	4/29/2020	Cabinet Minutes
Summer/Fall classes - announcement timing	4/29/2020	Academic Operations
Graduate Recognition	4/30/2020	Other
President's Cabinet Meeting minutes	5/1/2020	Cabinet Minutes
Tuition payment plan	5/1/2020	Other
Provost to faculty	5/1/2020	Academic
Cabinet Minutes	5/4/2020	Cabinet Minutes

Alumni 20 for 20 for grads	5/4/2020	Other
Spending Stimulus from Business Prof	5/5/2020	Other
HR new leave categories - support	5/6/2020	Human Resources
CARES Act funding for students	5/6/2020	Services
President's Cabinet	5/7/2020	Cabinet Minutes
AU Prof Insights	5/7/2020	Other
Keep community safe	5/7/2020	Other
Home Works College of Ed	5/8/2020	Other
University Operations Update from HR	5/8/2020	Operations
New Leave from from HR	5/8/2020	Operations
Cabinet Minutes	5/11/2020	Cabinet Minutes
Business prof insights	5/11/2020	Other
Special care with cleaners	5/12/2020	Other
Reading center tutors	5/13/2020	Other
HR ppt and recording on remote operations	5/13/2020	Human Resources Operations
Cabinet Minutes	5/14/2020	Cabinet Minutes
Grant to study compliance	5/14/2020	Other
RBD set to reopen	5/15/2020	Academic Operations
Economic Experts	5/15/2020	Other
President's Cabinet	5/18/2020	Other
Pharmacy Resource to state	5/18/2020	Other
Cyber threat warning	5/19/2020	Other
Pandemic lingering effects - psych	5/20/2020	Other
Cabinet meeting minutes	5/21/2020	Cabinet Minutes
AU Alumni on frontlines	5/21/2020	Other
Prevent the spread on Memorial Day	5/22/2020	Other
Donate plasma if had COVID-19	5/22/2020	Other
Business opportunities	5/27/2020	Other
Cabinet meeting minutes	5/28/2020	Cabinet Minutes
AU prof safety guidelines following or not	5/28/2020	Other
Operational changes	5/29/2020	Academic Operations
Operational changes	5/29/2020	Human Resources Operations
Operational changes	5/29/2020	Academic Operations
Mindfulness	6/1/2020	Other
President Cabinet Minutes	6/1/2020	Cabinet Minutes
Travel case by case basis	6/2/2020	Operations

Farmers market back open	6/3/2020	Other
Cabinet Minutes	6/4/2020	Cabinet Minutes
Writing center online	6/4/2020	Other
Cabinet Minutes	6/8/2020	Cabinet Minutes
Campus tours virtually	6/8/2020	Other
Hunger	6/9/2020	Other
Fall plans in the works released by early July maybe sooner	6/10/2020	Other
Detailed commencement plans	6/11/2020	Operations
Campus events guidelines	6/11/2020	Operations
President Cabinet Minutes	6/11/2020	Cabinet Minutes
Auburn preparing nurses	6/12/2020	Other
Cabinet	6/15/2020	Cabinet Minutes
Auburn alum	6/15/2020	Other
Draft Fall Re-entry plan	6/15/2020	Academic Operations
August commencement plans	6/16/2020	Operations
Fall draft plans shared with provost's council	6/17/2020	Academic Operations
AU preparing teachers	6/17/2020	Other
Cabinet Minutes	6/18/2020	Cabinet Minutes
Face masks required	6/18/2020	Operations
Emails sent as warranted	6/19/2020	Other
Cabinet Minutes	6/22/2020	Cabinet Minutes
Fall modified plans	6/22/2020	Academic Operations
Cabinet Minutes	6/25/2020	Cabinet Minutes
Provost letter to faculty re-entry plan	6/30/2020	Academic Operations
View and acknowledge safety video	7/2/2020	Academic Operations
Cabinet Minutes	7/6/2020	Cabinet Minutes
PPE purchase guidelines	7/6/2020	Operations
A Healthier U launched	7/9/2020	Operations
President's Cabinet Minutes	7/9/2020	Cabinet Minutes
Senate encouraging faculty to read plan	7/10/2020	Academic Operations
Cabinet Minutes	7/13/2020	Cabinet Minutes
Cabinet Minutes	7/16/2020	Cabinet Minutes
All students to be tested this fall	7/17/2020	Operations
AU Facilities	7/17/2020	Operations
Update to faculty	7/17/2020	Academic

Senate collecting concerns from 7-17 message	7/19/2020	Academic
Cabinet Minutes	7/20/2020	Cabinet Minutes
Follow up to 7-17 message	7/21/2020	Academic Operations
Operational modifications through 10/10/20	7/20/2020	Operations
Cabinet Minutes	7/23/2020	Cabinet Minutes
Cabinet Minutes	7/27/2020	Cabinet Minutes
Commencement canceled	7/27/2020	Academic Operations
Cabinet Minutes	7/30/2020	Cabinet Minutes
Cabinet Minutes	8/3/2020	Cabinet Minutes
Cabinet Minutes	8/6/2020	Cabinet Minutes
Cabinet Minutes	8/10/2020	Cabinet Minutes
Students have to be tested upon returning, everyone has to watch video	8/11/2020	Operations
Cabinet Minutes	8/13/2020	Cabinet Minutes
Provost to faculty	8/13/2020	Academic Operations
A healthier U reminder, wear facemasks	8/14/2020	Human Resources Operations
Biggio Zoom Room first two days of classes	8/17/2020	Academic
President's Cabinet	8/17/2020	Cabinet Minutes
F21 Admissions Criteria	8/17/2020	Academic Operations
Masks required outside	8/18/2020	Operations
Campus safety reminders	8/19/2020	Operations
President's Cabinet Minutes	8/20/2020	Cabinet Minutes
Senate notes - covid	8/20/2020	Academic
Cabinet Minutes	8/24/2020	Cabinet Minutes
Cabinet Minutes	8/27/2020	Cabinet Minutes
VP Student Affairs letter to students - no gatherings over 50	8/27/2020	Operations
State order extended to October	8/27/2020	Operations Other
Senate chair to faculty	8/28/2020	Other
Cabinet Minutes	8/31/2020	Cabinet Minutes
President Thank you	9/3/2020	Other
Cabinet Minutes	9/3/2020	Cabinet Minutes
Faculty Update - Thanks, check screens, care about mental health	9/3/2020	Academic
Cabinet Minutes	9/10/2020	Cabinet Minutes
Cabinet Minutes	9/14/2020	Cabinet Minutes

Sentinel testing begins for employees	9/14/2020	Operations
Cabinet Minutes	9/17/2020	Cabinet Minutes
Cabinet Minutes	9/21/2020	Cabinet Minutes
AU Changes Operational Modifications	9/21/2020	Operations
Cabinet Minutes	9/24/2020	Cabinet Minutes
Faculty message- expected to teach f2f in spring	9/24/2020	Academic Operations
Cabinet meeting	9/28/2020	Cabinet Minutes
Cabinet meeting	10/1/2020	Cabinet Minutes
Cabinet meeting	10/5/2020	Cabinet Minutes
Cabinet meeting	10/8/2020	Cabinet Minutes
Provost to students, we'll be here in the spring	10/8/2020	Academic Operations
Cabinet meeting	10/12/2020	Cabinet Minutes
Cabinet meeting	10/15/2020	Cabinet Minutes
Cabinet meeting	10/19/2020	Cabinet Minutes
Cabinet meeting	10/22/2020	Cabinet Minutes
Cabinet meeting	10/26/2020	Cabinet Minutes
Cabinet meeting	10/29/2020	Cabinet Minutes
Special called senate meeting	10/30/2020	Academic Operations
Guidance for employees returning to work 11-30 to 12-31	10/30/2020	Human Resources Operations
Cabinet meeting	11/2/2020	Cabinet Minutes
Cabinet meeting	11/5/2020	Cabinet Minutes
Ivey order - extended slight changes	11/5/2020	Other
Spring academic calendar plans announced	11/6/2020	Academic Operations
AU taking over sentinel testing	11/6/2020	Operations
Special Faculty Senate Meeting	11/6/2020	Academic
Cabinet Minutes	11/9/2020	Cabinet Minutes
Special Senate meeting called today (11-10)	11/10/2020	Academic
Message from Senate Chair	11/10/2020	Academic
Cabinet Minutes	11/12/2020	Cabinet Minutes
Spring sentinel testing	11/12/2020	Human Resources Operations
November senate meeting	11/13/2020	Academic
Testing available before holiday travel	11/16/2020	Other
Cabinet Minutes	11/16/2020	Cabinet Minutes
Travel modifications and event restrictions	11/16/2020	Operations
Provost message to faculty	11/16/2020	Academic

BOT virtual	11/16/2020	Operations Other
Return to work guidance update	11/17/2020	Operations
Cabinet Minutes	11/19/2020	Cabinet Minutes
HR - holiday travel requires extra vigilance	11/20/2020	Other
President's Cabinet	11/23/2020	Cabinet Minutes
Message to faculty	11/24/2020	Academic Operations
Help with Honor Lock from Biggio	11/30/2020	Academic
Cabinet Minutes	11/30/2020	Cabinet Minutes
Town Hall with Provost about spring	12/1/2020	Academic
Town Hall with Provost today and memo	12/3/2020	Academic
COVID Safety Requirements	12/3/2020	Other
Provost Office response to concerns	12/3/2020	Academic Other
1st Town Hall with provost	12/4/2020	Academic Other
Cabinet Minutes	12/7/2020	Cabinet Minutes
2nd Town Hall reminder	12/7/2020	Academic Other
Special Session in early 2021	12/7/2020	Academic Other
Gov. Kay Ivey extends mask mandate to 1.22.21	12/9/2020	Operations Other
Masks required OUTSIDE and inside on campus	12/10/2020	Operations
Cabinet Minutes	12/14/2020	Cabinet Minutes
Clarification on course modalities and face to face safety	12/15/2020	Academic Operations
Can work remotely until January 10th	12/16/2020	Operations
Holiday travel - maybe should cancel or quarantine	12/17/2020	Other
Happy holidays from Bill, looking at spring	12/18/2020	Academic Other
AU Ready for vaccines	12/18/2020	Operations
AU Ready for vaccine, do our own sentinel testing	12/18/2020	Operations
FSA impact	12/28/2020	Human Resources
1st two weeks can be remote if faculty want. COVID time off extended, masks requires	12/29/2020	Academic Human Resources Operations

Provost - more town halls coming	12/29/2020	Academic Operations Other
Remote work okay through 24th	12/29/2020	Human Resources Operations
Cabinet Minutes	1/4/2021	Cabinet Minutes
Three town halls in January (2.5 really)	1/5/2021	Academic Other
AU does own Sentinel testing program	1/5/2021	Operations Other
Vaccines available (3500)	1/6/2021	Operations Other
Vaccine distribution plan	1/8/2021	Operations Other
Form now live for high risk people to get vaccinated	1/8/2021	Operations
Special Session	1/9/2021	Academic Other
Cabinet Minutes	1/11/2021	Cabinet Minutes
Faculty Development PPT of work done and email sent to faculty before Spring 2021	1/11/2021	Academic
Special meeting today	1/12/2021	Academic Other
Provost message to faculty	1/12/2021	Academic Operations
Faculty town hall scheduled for the 13th rescheduled	1/12/2021	Other
COVID-19 safety reminders	1/12/2021	Other
Vaccine form for high risk available, sentinel testing begins, AU City cracking down on masks	1/12/2021	Other
Special Meeting (no confidence vote) moved to webinar format	1/12/2021	Academic Other
Update - faculty voted not to vote on no confidence	1/13/2021	Academic Other
Operations Update	1/15/2021	Operations
Vaccine update, sentinel launch smooth	1/15/2021	Operations
Senate meeting tomorrow	1/18/2021	Academic Other
Senate meeting today, updated link	1/19/2021	Academic Other
Cabinet Minutes	1/19/2021	Cabinet Minutes
Gov mask order extended to March 5	1/21/2021	Other
Remote work extended to Feb 7th	1/22/2021	Operations

Cabinet Minutes	1/25/2021	Cabinet Minutes
Return to work details	1/25/2021	Human Resources Operations
Cabinet Minutes	1/28/2021	Cabinet Minutes
Full operations back on 2.8	1/29/2021	Human Resources Operations
Cabinet Minutes	2/1/2021	Cabinet Minutes
Cabinet Minutes	2/4/2021	Cabinet Minutes
Updated info on return to work	2/5/2021	Human Resources Operations
Return to work info	2/5/2021	Human Resources Operations
Cabinet Minutes	2/8/2021	Cabinet Minutes
Updated vaccine interest form	2/10/2021	Human Resources Operations
Cabinet Minutes	2/11/2021	Cabinet Minutes
Vaccine interest form - hr	2/12/2021	Human Resources
Message to faculty - summer and fall plans	2/12/2021	Academic Operations
Cabinet Minutes	2/15/2021	Cabinet Minutes
Cabinet Minutes	2/18/2021	Cabinet Minutes
More vaccines	2/18/2021	Other
Cabinet Minutes	2/22/2021	Cabinet Minutes
Cabinet Minutes	2/25/2021	Cabinet Minutes
Events to 100	2/26/2021	Human Resources Other
Cabinet Minutes	3/1/2021	Cabinet Minutes
More vaccines	3/1/2021	Other
Town hall follow-up questions	3/2/2021	Operations
Cabinet meetings, Kay Ivey update	3/4/2021	Cabinet Minutes
Domestic travel permitted	3/5/2021	Operations
Cabinet Minutes	3/8/2021	Cabinet Minutes
Cabinet Minutes	3/15/2021	Cabinet Minutes
Cabinet Minutes	3/18/2021	Cabinet Minutes
Campus events upped to 150	3/19/2021	Operations
Cabinet Minutes	3/22/2021	Cabinet Minutes
Cabinet Minutes	3/25/2021	Cabinet Minutes
Cabinet Minutes	3/29/2021	Cabinet Minutes
Cabinet Minutes	4/5/2021	Cabinet Minutes
Cabinet Minutes	4/8/2021	Cabinet Minutes
AU news - masks inside, optional outside	4/8/2021	Operations

AU news - masks inside, optional outside	4/9/2021	Human Resources Operations
Vehicle policy changing	4/9/2021	Operations
Cabinet Minutes	4/12/2021	Cabinet Minutes
Funeral assistance (FEMA)	4/15/2021	Human Resources
Vaccines encouraged not required	4/15/2021	Human Resources
Cabinet Minutes	4/19/2021	Cabinet Minutes
Return to regular in fall 2021	4/21/2021	Operations
Return to work May 4	4/21/2021	Human Resources Operations
Cabinet Minutes	4/22/2021	Cabinet Minutes
In-person fall semester, employees return to work May 4	4/23/2021	Operations
Cabinet Minutes	4/26/2021	Cabinet Minutes
Event cap 150	4/27/2021	Operations
Cabinet Minutes	4/29/2021	Cabinet Minutes
Cabinet Minutes	5/3/2021	Cabinet Minutes
Cabinet Minutes	5/17/2021	Cabinet Minutes

Appendix D

Email Draft for Invitation to Participate

Academic Advisors and Student Services Coordinators,

I am reaching out to make you aware of a research study being conducted by Judy Sanders, Advising Technologies Coordinator at Auburn, titled "Academic Advising and the COVID-19 Pivot: A Qualitative Case Study of the Transition to Virtual Advising." Judy will be conducting interviews with interested participants to learn about their experience of pivoting to a virtual advising environment. The interviews will last between sixty and ninety minutes and will be recorded on Zoom. The identity of participants will be kept private through the use of pseudonyms. See the attached flyer for more details. If you are interested in participating or have questions email Judy Sanders at sandej4@auburn.edu. Interviews are anticipated to begin in November 2022.

Thank you as always for all you do,
Ruthie Spiers

AUBURN UNIVERSITY

COLLEGE OF EDUCATION

DEPARTMENT OF EDUCATIONAL FOUNDATIONS, LEADERSHIP AND TECHNOLOGY

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)

INFORMATION LETTER
for a Research Study entitled

"Academic Advising and the COVID-10 Pivot: A Qualitative Case Study of the Transition to Virtual Advising"

You are invited to participate in a research study to explore how academic advising professionals navigated the required pivot beginning March 16, 2022, to virtual operations at the onset of the COVID-9 pandemic. The study is being conducted by Judith Sanders, Principal Investigator under the direction of Dr. Leslie Cordie, Associate Professor/Faculty Advisor in the Auburn University Department of Educational Foundations, Leadership, and Technology. You are invited to participate because you are an Academic Advisor I, II, or III or Student Services Coordinator I, II, or III at Auburn University.

What will be involved if you participate? If you decide to participate in this research study, you will be asked to participate in a Zoom interview to discuss your process to pivot to virtual operations during the COVID-19 pivot. Your total time commitment will be approximately 60-90 minutes.

Are there any risks or discomforts? The interview will be recorded so a transcription can be produced and used for analysis. The recordings will be destroyed upon successful submission of the resulting dissertation expected to be completed by December 31, 2023. The risk associated with participating in this study is a low risk of breach of confidentiality. To minimize this risk, we will ask you to choose a pseudonym and we will not use your real name but will only associate your pseudonym with the written transcription of the interview.

Are there any benefits to yourself or others? While you may not receive direct benefits you will be adding to the knowledge and research concerning academic advising and the historical documentation of the COVID-19 pandemic. We/I cannot promise you that you will receive any or all of the benefits described.

Will you receive compensation for participating? There is no compensation for participating in this study.

4036 HALEY CENTER
AUBURN, AL 36849-5221

TELEPHONE:
334-844-4460

FAX:
334-844-3072

www.auburn.edu

Are there any costs? If you decide to participate, there is no cost to you. Auburn University has not provided for any payment if you are harmed as a result of participating in this study.

If you change your mind about participating, you can withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Educational Foundations, Leadership, and Technology or the Auburn University advising community.

Any data obtained in connection with this study will remain confidential. We will protect your privacy and the data you provide by using a pseudonym and maintaining the data in a password-protected Auburn University Box folder that is only accessible by Judith Sanders and Dr. Leslie Cordie. Information collected through your participation may be used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting.

If you have questions or would like to participate in this study, contact Judith Sanders at sandej4@auburn.edu or Dr. Leslie Cordie at lak0007@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

Judith Sanders
Investigator's signature

November 6, 2022
Date

Judith Sanders
Print Name

Leslie Cordie
Investigator's signature

11/8/22
Date

Leslie Cordie
Print Name

Version Date November 6, 2022

Appendix E

Permission to Use COVID-19 Communication

AUBURN
ACCREDITATION

September 14, 2023

Judith Sanders, Ed.S.
Office of Academic Effectiveness
0176A RBD Library
Auburn, AL 36849

Dear Ms. Sanders,

Thanks for your interest in accessing all Auburn University communication and information related to the COVID-19 Pandemic for your dissertation. As Auburn's SACSCOC Liaison who has tracked all of these communications, I grant you permission to use this information for your dissertation.

Sincerely,

Mark DeGoti, D.M.
SACSCOC Liaison
Auburn University

AUBURN

Appendix F

Permission to Use Professional Development Information

AUBURN
UNIVERSITY

September 12, 2022

Judy Sanders
0176 RBD Library
Auburn University, AL 36849

Dear Judy,

Thank you for your interest in advisor professional development content and attendance data at Auburn University for your dissertation. As Director of University Advising, I will provide available materials from professional development sessions and attendance data in a shared Box folder and grant you permission to use the data for your dissertation.

Sincerely,

Ruthie Spiers, PhD
Director of University Advising
Auburn University

Revised 07/12/2022

Approved IRB Protocol

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS

PROTOCOL REVIEW FORM
FULL BOARD or EXPEDITED REVIEW

For assistance, contact: **The Office of Research Compliance (ORC)**
Phone: **334-844-5966** E-Mail: **IRBAdmin@auburn.edu** Web Address: **http://www.auburn.edu/research/vpr/ohs**
Submit completed form and supporting materials as one PDF through the IRB Submission Page
Handwritten forms are not accepted. Where links are found hold down the control button (Ctrl) then click the link.

1. Proposed Start Date of Study: 11/14/2022 Today's Date: **November 4, 2022**
Submission Status (Check One): ☒ New ☐ Revisions (to address IRB Review Comments)
Proposed Review Category (Check One): ☐ Full Board (greater than minimal risk) ☒ Expedited
If Expedited, Indicate Category(ies) ((Link to Expedited Category Review Sheet) 6

2. Project Title: Academic Advising and the COVID-19 Pivot: A Qualitative Case Study of the Transition to Virtual Advising

3. Principal Investigator (PI): Judith Sanders Degree(s): MEd. EdS
Rank/Title: Graduate Student Department/School: Educational Foundations, Leadership, and Technology
Role/responsibilities in this project: Responsible for the overall project, recruitment of participants, conduct interview, transcribe data, code and analyze data, report data in dissertation.
Preferred Phone Number: 334-740-8150 AU Email: sandej4@auburn.edu

Faculty Advisor Principal Investigator (if applicable): Dr. Leslie Cordie
Rank/Title: Associate Professor Department/School: Educational Foundations, Leadership, and Technology
Role/responsibilities in this project: Supervise and guide principal investigator (graduate student) maintain participant/pseudonym list.
Preferred Phone Number: 334-844-3089 AU Email: lak0007@auburn.edu

Department Head: Dr. Paul Fitchett Department/School: Curriculum and Teaching
Preferred Phone Number: **334-844-6892** AU Email: pfg0011@auburn.edu
Role/responsibilities in this project: Department Head approval

4. Funding Support: ☒ N/A ☐ Internal External Agency: Click or tap here to enter text. Pending ☐ Received ☐
For federal funding, list funding agency and grant number (if available): Click or tap here to enter text.

5. a) List any contractors, sub-contractors, and other entities associated with this project: Click or tap here to enter text.

b) List any other AU IRB approved protocols associated with this study and describe the association: Click or tap here to enter text.

c) List any other institutions associated with this study and submit a copy of their IRB approval(s): Click or tap here to enter text.

Protocol Packet Checklist

Check all applicable boxes. A completed checklist is required.

☒ **Protocol Review Form** (All required signatures included and all sections completed)
(Examples of appended documents are found on the website: https://cws.auburn.edu/OVPR/pm/compliance/irb/sampledocs)

☒ **CITI Training Certificates** for key personnel

☒ **Consent Form or Information Letter** and any releases (audio, video or photo) that participants will review and/or sign

☒ **Appendix A** "Reference List"

☒ **Appendix B** if e-mails, flyers, advertisements, social media posts, generalized announcements or scripts, etc., will be used to recruit participants.

☒ **Appendix C** if data collection sheets, surveys, tests, other recording instruments, interview scripts, etc. will be used for data collection. Attach documents in the order they are listed in item 13c. **Continued on Page 2**

☐ **Appendix D** if they study will use a debriefing form or will include emergency plans/ procedures and medical referral lists. (A referral list may be attached to the consent document.)

☐ **Appendix E** if research is being conducted at sites other than Auburn University or in cooperation with other entities. A **permission letter** from the site/ program director must be included indicating their cooperation or involvement in the project. NOTE: If the proposed research is a multi-site project, involving investigators or participants at other academic institutions, hospitals or private research organizations, a letter of **IRB approval** from each entity is required prior to initiating the project.

☐ **Appendix F** Written evidence of approval by the host country, local IRB or institutions if research is conducted outside the United States

6. General Research Project Characteristics

6A. Research Methodology

Check all descriptions that best apply to the research methodology.

Data Source(s): ☒ New Data ☐ Existing Data

Will recorded data directly or indirectly identify participants?
☒ Yes ☐ No

Data collection will involve the use of:

- ☐ Educational Tests (cognitive diagnostic, aptitude, etc.)
- ☒ Interview
- ☐ Observation
- ☐ Locations or Tracking Measures
- ☐ Physical / Physiological Measures or Specimens
- ☐ Surveys / Questionnaires
- ☒ Other: Internal documents
- ☒ Internet / Electronic
- ☒ Audio
- ☒ Video
- ☐ Photos
- ☐ Digital Images
- ☐ Private records or files

6B. Participant Information

Check all descriptors that apply to the TARGET population.
(link to definition of target population)
☒ Males ☒ Females ☐ AU students

Vulnerable Populations
☐ Pregnant Women/Fetuses ☐ Prisoners ☐ Institutionalized
☐ Children and / or Adolescents (under age 18 in AL; if minor participants, at least 2 adults must be present during all research procedures that include the minors)

Persons with:
☐ Economic Disadvantages ☐ Physical Disabilities
☐ Educational Disadvantages ☐ Intellectual Disabilities

Will participants be compensated? ☐ Yes ☒ No

6C. Risks to Participants

Identify all risks participants might encounter in this research.

- ☒ Breach of Confidentiality*
- ☐ Deception
- ☐ Psychological
- ☐ None
- ☐ Other (COVID-19, other medical):

Click or tap here to enter text.

- ☐ Coercion
- ☐ Physical
- ☐ Social

*Note that if the investigator is using or accessing confidential or identifiable data, reach of confidentiality is always a risk.

6D. Corresponding Approval/ Oversight

- **Does the study include participant exposure to radiation?** ☐ **Yes** ☒ **No**
  If yes indicate: ☐ **DEXA** ☐ **PQCT** ☐ **Other**

- **Is IBC Approval required for this study?**
  ☐ **Yes** ☐ **No**

  If yes, BUA # Click or tap here to enter text. **Expiration Date** Click or tap to enter a date.

- **Is IACUC Approval required for this study?**
  ☐ **Yes** ☐ **No**

If yes, PRN # Click or tap here to enter text. **Expiration Date** Click or tap to enter a date.

- **Does this study involve the Auburn University MRI Center?**
  ☐ Yes ☐ No

Which MRI(s) will be used for this project? (Check all that apply)
☐ 3T ☐ 7T

Continued on Page 3

Does any portion of this project require review by the MRI Safety Advisory Council?
☐ Yes ☐ No

Signature of one MRI Center Representative:_____
Required for all projects involving the AU MRI Center
Appropriate MRI Center Representatives:
Dr. Thomas S. Denney, Director AU MRI Center
Dr. Ron Beyers, MR Safety Officer

7. Project Assurances

7A. Principal Investigator's Assurances

1. I certify that all information provided in this application is complete and correct.
2. I understand that, as Principal Investigator, I have ultimate responsibility for the conduct of this study, the ethical performance this project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the Auburn University IRB.
3. I certify that all individuals involved with the conduct of this project are qualified to carry out their specified roles and responsibilities and are in compliance with Auburn University policies regarding the collection and analysis of the research data.
4. I agree to comply with all Auburn policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects, including, but not limited to the following:
   a. Conducting the project by qualified personnel according to the approved protocol
   b. Implementing no changes in the approved protocol or consent form without prior approval from the Office of Research Compliance
   c. Obtaining the legally effective informed consent from each participant or their legally responsible representative prior to their participation in this project using only the currently approved, stamped consent form
   d. Promptly reporting significant adverse events and / or effects to the Office of Research Compliance in writing within 5 working days of the occurrence.
5. If I will be unavailable to direct this research personally, I will arrange for a co-investigator to assume direct responsibility in my absence. This person has not been named as co-investigator in this application, or I will advise ORC, by letter, in advance of such arrangements.
6. I agree to conduct this study only during the period approved by the Auburn University IRB.
7. I will prepare and submit a renewal request and supply all supporting documents to the Office of Research Compliance before the approval period has expired if it is necessary to continue the research project beyond the time period approved by the Auburn University IRB.
8. I will prepare and submit a final report upon completion of this research project.

My signature indicates I have read, understand and agree to conduct this research project in accordance with the assurances listed above.

Judith Sanders	Judith Sanders	November 6, 2022
Principal Investigator Name	**Principal Investigator Signature**	**Date**

7B. Faculty Advisor / Sponsor's Assurances

1. I have read the protocol submitted for this project for content, clarity, and methodology.
2. By my signature as faculty advisor / sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human subjects and has sufficient training and experience to conduct this particular study in accord with the approved protocol.
3. I agree to meet with the investigator on a regular basis to monitor study progress. Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them.
4. I assure that the investigator will promptly report significant incidents and / or adverse events and / or effects to the ORC in writing within 5 working days of the occurrence.

5. If I will be unavailable, I will arrange for an alternate faculty sponsor to assume responsibility during my absence, and I will advise the ORC by letter of such arrangements. If the investigator is unable to fulfill requirements for submission of renewals, modifications or the final report, I will assume that responsibility.

Leslie Cordie	Leslie Cordie	11/8/22
Faculty Advisor / Sponsor Name	**Faculty Advisor Signature**	**Date**

Continued on Page 4

7C. Department Head's Assurance

By my signature as department head, I certify that I will cooperate with the administration in the application and enforcement of all Auburn University policies and procedures, as well as all applicable federal, state, and local laws regarding the protection and ethical treatment of human participants by researchers in my department

Paul Fitchett	Paul Fitchett	11/8/2022
Department Head Name	**Department Head Signature**	**Date**

8. Project Overview:

8A. A summary of relevant research findings leading to this research proposal:

*(Cite source; include a "Reference List" as **Appendix A**.)*

Academic advising has a positive impact on student success, graduation rates, and retention rates, as well as the reputation of the post-secondary institution (Klepfer & Hull, 2012; Mu & Fosnacht, 2019; Pascarella & Terenzini, 2005; Ross & Kena, 2012; Troxel, 2021; White, 2015). Retention and graduation rates impact the institutional reputation and funding of the institution. (Hossler, 2006; Miller et al., 2019; Pascarella & Terenzini, 2005; Titus, 2004; Zong & Davis, 2022).

Academic advising is an area of higher education that has readily adapted to the increased use of technology (Troxel, 2021). Technological advising resources available to advisors include websites, student success management systems, and online degree audit systems (Herodotou et al., 2019; Seres et al., 2018; Wang & Houdyshell, 2021; Williamson, 2019).

Academic advisors are tasked to implement technological resources into their advising practices to increase task efficiency, create a record of student interaction, and inform decisions regarding academic intervention thus potentially increasing overall student success and retention (Mu & Fosnacht, 2019).

A dramatic shift in higher education occurred in March 2020 when pandemic-level cases of COVID-19 forced many higher education institutions in the United States to cease in-person classes, academic advising, and student activities on university campuses. Institutions, faculty, and student advising staff reacted quickly to the mandate and created remote at-home work environments to facilitate many, if not all, traditional classes and student services in a virtual environment (Harkavy, 2022; Johnson et al., 2020). During this transition the traditional system of colleagues and technology support teams was suddenly less available and contributed to creating a stressful environment as reported in mainstream media, blogs, and other grey literature (Burelison et al., 2021).

An increased understanding of how advisors learn and integrate technology into academic advising practice could potentially lead to more effective academic advising, thus increasing student retention and graduation rates (Pasquini, 2011). An increase in student retention and graduation rates may lead to a more positive institutional reputation as well as maintenance or increased funding for the institution (Zong & Davis, 2022). Additionally, a more complete understanding of advisors' learning and professional development needs might inform administrators' decision making thus enhancing training and professional development opportunities in terms of skill acquisition, cost, and better outcomes for advisors as well as students (Zarges et al., 2018).

8B. A brief summary/abstract of the study methodology, including design, population, and variables of interest.

(350 word maximum, in language understandable to someone who is not familiar with your area of study. Note this summary/abstract can be used to prepare the concise summary in the consent document.):

This qualitative case study seeks to interview between 2-15 individuals who are Academic Advisors I/II/III or Student Service Coordinators I/II/III at Auburn University to explore the process to pivot from predominately in-person to all virtual services during the COVID-19 pandemic. Participants will be recruited through an email sent from the University Director

of Advising to advisors meeting the selection participant criteria Interested participants will be guided to contact the Principal Investigator (PI) by email for information and to volunteer for the study. Semi-structured interviews will be conducted using Auburn University Zoom technology which will allow for audio//video recording and provide a transcription of the interview. Participants will be identified in the recording with a pseudonym thus protecting their identity. Questions from a set of topic domains (Appendix C) will be used to explore the advisors' perception of the pivot process. Participants will waive written consent to participate and select a pseudonym at the start of the interview process. The recordings and pseudonym list will be maintained in an Auburn Box folder only shared between the PI and Faculty Advisor/Sponsor. Official communication (email, letters, etc.) and subsequent directives regarding the mandated pivot and pandemic sent to advising staff from university, college, and department level offices will be gathered and analyzed to further explore the overall pivot process. Attendance records and documents from academic advising professional development sessions offered through the university will also be used to explore the pivot process and provide additional data for the case study. Using multiple sources of data concerning the pivot process will support triangulation of data that is needed to establish credibility in this case study (Merriam,1998). The analysis of the data will be conducted through inductive (open coding) and deductive (*a priori* codes based on the literature) methods. The perceptions of the participants will be reported in Chapter 4 of the PI's dissertation and potential future publication in advising and technology professional journals.

9. Purpose

9A. State the purpose of the study and all research questions or aims. (Include a sentence that begins, "The purpose of this study is…")

The purpose of this study is to explore how academic advisors in the case study navigated the required pivot to fully remote operations during the COVID-19 pandemic. A secondary purpose is to provide a framework for professional development needs particularly related to the integration of technology in academic advising practices.

9B. Describe how results of this study will be used? (e.g., presentation? publication? thesis? dissertation?)

The results of this study will be used in the PI's dissertation. It is expected the data will also be used to publish findings in academic advising or technology-based literature.

10. Key Personnel. Describe responsibilities as specifically as possible. Include information on research training or certifications related to this project. **To determine key personnel see decision tree at https://cws.auburn.edu/OVPR/pm/compliance/irb/training. Submit a copy of CITI training documentation for all key personnel.** (For additional personnel, add lines as needed).

To determine Auburn University HIPAA – covered entities click link to HIPAA Policy.

If any key personnel have a formal association with institutions/entities involved in the study (for example is an employee or supervisor at the site research will occur), describe that affiliation. For all non-AU affiliated key personnel, submit a copy of their IRB approval.

Principal Investigator: Judith Sanders **Rank/Title:** Graduate Student
Email Address: sandej4@auburn.edu **Degree(s): MEd, EdS**
Dept / Affiliation: Educational Foundations, Leadership, and Technology **HIPAA Covered Entity? Yes ☐ No ☒**
Roles / Responsibilities: Researcher: Recruitment, interviewing, transcription, analysis, and reporting of findings.
- AU affiliated? ☒ Yes ☐ No If no, name of home institution: Click or tap here to enter text.
- Plan for IRB approval for non-AU affiliated personnel? Click or tap here to enter text.
- Do you have any known competing financial interests, personal relationships, or other interests that could have influence or appear to have influence on the work conducted in this project? ☐ Yes ☒ No
- If yes, briefly describe the potential or real conflict of interest: Click or tap here to enter text.
- Completed required CITI training? ☒ Yes ☐ No If NO, complete the appropriate CITI basic course and update the revised Exempt Application form.
- If YES, choose course(s) the researcher has completed: Human Sciences Basic Course 8/25/2025
  Choose a course Expiration Date

Individual: Leslie Cordie **Rank/Title:** Assistant Professor
Email Address: lak0007@auburn.edu **Degree(s): PhD**
Dept. / Affiliation: Educational Foundations, Leadership, and Technology **HIPAA Covered Entity? Yes ☐ No ☒**

Roles / Responsibilities: Dissertation Chair: Maintain security of Zoom recordings and participant pseudonym list

- AU affiliated? ☒ Yes ☐ No If no, name of home institution: Click or tap here to enter text.
- Plan for IRB approval for non-AU affiliated personnel? Click or tap here to enter text.
- Do you have any known competing financial interests, personal relationships, or other interests that could have influence or appear to have influence on the work conducted in this project? ☐ Yes ☒ No
- If yes, briefly describe the potential or real conflict of interest: Click or tap here to enter text.
- Completed required CITI training? ☒ Yes ☐ No If NO, complete the appropriate CITI basic course and update the revised Exempt Application form.
- If YES, choose course(s) the researcher has completed: Human Sciences Basic Course 8/29/2025
  Choose a course Expiration Date

11. Location of research.

11A. List all locations where data collection will occur. If applicable, attach permission letters as Appendix E. (School systems, organizations, businesses, buildings and room numbers, servers for web surveys, etc.) **Be as specific as possible.** (See sample letters at https://cws.auburn.edu/OVPR/pm/compliance/irb/sampledocs)

All interviews will be conducted on Auburn University Zoom technology in which no other individuals will be present at the participant or PI locations. Participants in this study are familiar with Auburn University Zoom technology. Using Zoom technology allows the participant to select the location of the interview thus increasing their feelings of comfortableness and safety during the interview.

11B. Will study data be stored within a HIPAA covered facility? Yes ☐ No ☒

If yes, which facility(ies) (To determine AU HIPPA covered entities, go to VII of the HIPPA Hybrid Entity Policy)**:**
Click or tap here to enter text.

12. Participants (If minor participants, at least 2 adults must be present during all research procedures that include the minors.)

12A. Describe the targeted/ intended participant population for the study. Include the anticipated number of participants and inclusion and exclusion criteria and the procedures to ensure more than 1 adult is present during all research procedures which include the minor.

☐ Check here if existing data will be used and describe the population from whom data was collected including the number of data files.

Academic advisors or student service coordinators at Auburn University whose job includes advising as at least 50% of their job responsibilities. It is expected that 2-15 individuals will participate in the study.

☐ Check here if permission to access existing data is required and submit a copy of the agreement to access.

Click or tap here to enter text.

12B. Describe, step-by-step in lay language all procedures to recruit participants. Include in **Appendix B** a copy of all e-mails, flyers, advertisements, recruiting scripts, invitations, etc., that will be used to invite people to participate. (See sample documents at https://cws.auburn.edu/OVPR/pm/compliance/irb/sampledocs)

The Director of University Advising will identify advising professionals who meet the study criteria through a list of the Auburn University Advisors and Counselors Caucus and Human Resources job titles. All potential participants are employees of Auburn University and have a job title of Academic Advisor I/II/III or Student Services Coordinator. An invitation to participate, including an information letter, will be sent by the Director of University Advising to advising professionals who meet study criteria. The Director of University Advising will secure contact information through the Auburn University Advisors and Counselors Caucus listserv. The email will initially be sent in November 2022 and will be resent if at least 2-5 participants do not volunteer.

12C. Minimum number of participants required to validate the study? 2

Number of participants expected to enroll? 2-15

Provide the rationale for the number of participants. This is an instrumental case study to explore the COVID-19 pivot process experience of advising professionals and does not require a minimum number of participants for the research. While there is no identified limit of participants, it is anticipated that 2-15 would be adequate for to provide context for the pivot experience of the proposed case study population (Merriam, 1998).

Is there a limit to the number of participants that will be included in the study?

☒ **No** ☐ **Yes, the number is** Click or tap here to enter text.

12D. Describe the process to compensate, amount and method of compensation and/or incentives for participants. **AU Procurement and Business Services (PBS) policies**
(benefits to participants are NOT compensation)

If participants will not be compensated, check here: ☒
Indicate the amount of compensation per procedure and in total: Click or tap here to enter text.
Indicate the type of compensation: ☐ Monetary ☐ Incentives

☐ Raffle or Drawing incentive (Include the chances of winning.)
☐ Extra Credit (State the value)
☐ Other

Describe how compensation will be distributed (USPS, email, etc.): Click or tap here to enter text.

13. Project Design & Methods

13A. Describe, step-by-step, all procedures and methods that will be used to consent participants. If a waiver is being requested, indicate the waiver, and describe how the study meets the criteria for the waiver. If minors will be enrolled describe the process to obtain parental/ legally authorized guardian permission.

☐ **Waiver of Consent (including using existing data)**

☒ **Waiver of Documentation of Consent (use of Information Letter)**

☐ **Waiver of Parental Permission (for college students 18 years or younger)**

This study meets the Waiver of Documentation Consent criteria as only pseudonyms will be used as identifiers. Participants will be asked to identify themselves with a pseudonym of their choice prior to the start of the interview. There is no more than minimal risk to participants in the study as participants will not be personally identified. Interviews will be transcribed through the Zoom recording process and redacted to remove any potential identifiable participant information that may be introduced by the participant during the interview and to verify verbatim transcription.

13B. In lay language, understandable by someone not familiar with the area of study, describe the complete research design and methods that will be used to address the purpose. Include a clear description of who, when, where and how data will be collected. Include specific information about participants' time and effort.

A case study approach will be used to provide an opportunity for participants to share their experiences to pivot from in-person to virtual advising services during the COVID-10 pandemic. Semi-structured or conversational style interviews of participants, along with documentation of university communication regarding the mandated pivot and attendance records/training documentation of advising professional development sessions, will be used to provide a structure of the participants' pivot experiences. Eligible participants will be academic advisors and student services coordinators with academic advising being a minimum of 50% of their job responsibilities. Participant recruitment will begin during the Fall 2022 semester with interviews being conducted by the end of Spring 2023 semester. Interviews will be conducted using Auburn Zoom technology allowing participants to choose their location for the interview. University communication regarding COVID-19 and professional development documents have been made accessible to the PI through the Office of the Provost, particularly the Southern Association of Colleges and Schools, Commission on Colleges (SACSCOC) and University Advising offices. Permission to use this documentation has been given by Dr, Mark DeGoti, Auburn University's SACSCOC liaison and Dr. Ruthanna Spiers, Director of University Advising. Documentation of this permission is included in this IRB Protocol Form Appendix C.

13C. List all data collection instruments used in this project, in the order they appear in Appendix C.
(e.g., surveys and questionnaires in the format that will be presented to participants, educational tests, data collection sheets, interview questions, audio/video taping methods etc.)

Interview protocol for semi-structured interviews are grouped into domains with potential questions identified. Semi-structured interviews are intended to be more conversational thus the questions are a guide and may not be presented uniformly across participants (Merriam, 1998).

13D. Data analysis: Describe how data will be analyzed. If a data collection form (DCF) will be used, submit a copy of the DCF.

Interview data will be transcribed through the recording process and redacted by the PI to remove all identifiable information. Only the participant pseudonym will remain as an identifier. Interview data will be read using an open coding method to seek out themes for analysis. The data will also be analyzed for *a priori* codes identified through the literature review. Data will be sorted into codes for grouping and reporting of findings.

13E. List any drugs, medications, supplements, or imaging agents that participants will ingest/ receive during participation in the study or indicate not applicable (N/A).

N/A

14. Risks & Discomforts: List and describe all the risks participants may encounter in this research including risks from item 6d of this form, in this research. If deception will be part of the study, provide the rationale for the deception, describe the debriefing process, and attach a copy of the debriefing form that will be used as Appendix D. (Examples of possible risks are in section #6C)

Breach of Confidentiality: A breach of confidentiality would be possible if the interview recordings were accessed by someone outside of the PI and Faculty Advisor. This risk would also require the person accessing the recording to be familiar enough with the participants to be able to recognize the participants by face or voice. The participants will not be asked to discuss potentially sensitive information in the interview process. Participation in this research should not cause any discomfort beyond normal conversation concerning advising process and the utilization of technology.

15. Precautions / Minimization of Risks

15A. Identify and describe all precautions that will be taken to eliminate or reduce risks listed in items 6.c. and 14. If participants can be classified as a "vulnerable" population, describe additional safeguards that will be used to assure the ethical treatment of vulnerable individuals. **If applicable, submit a copy of any emergency plans/procedures and medical referral lists in Appendix D. (Sample documents can be found online at** https://cws.auburn.edu/OVPR/pm/compliance/irb/sampledocs **precautions)**

The recordings and pseudonym list will be maintained in separate password-protected Auburn Box folders shared between the PI and Faculty Advisor. The participant will be in the location of their choice for the Zoom interview. Upon completion of the dissertation and approval by the Graduate School, the recordings and pseudonym list will be destroyed. The transcriptions, identified only by pseudonym, will be maintained but the PI for potential further analysis and publication.

15B. If the internet, mobile apps, or other electronic means will be used to collect data, describe confidentiality and/or security precautions that will be used to protect (or not collect) identifiable data? Include protections used during collection of data, transfer of data, and storage of data. If participant data may be obtained and/or stored by apps during the study, describe.

All data including the recordings and pseudonym list will be maintained in separate password-protected Auburn Box folders shared between the PI and Faculty Advisor. The PI will maintain an electronic reflective journal during the research process. This journal will be a Word document accessible by the PI in a password protected Auburn Box folder.

15C. Does this research include purchase(s) that involve technology hardware, software or online services?

☐ **YES** ☒ **NO**

If YES:

A. Provide the name of the product Click or tap here to enter text.
and the manufacturer of the product Click or tap here to enter text.

B. Briefly describe use of the product in the proposed human subject's research.
Click or tap here to enter text.

C. **To ensure compliance with AU's Electronic and Information Technology Accessibility Policy, contact AU IT Vendor Vetting team at vetting@auburn.edu to learn the vendor registration process (prior to completing the purchase).**
D. **Include a copy of the documentation of the approval from AU Vetting with the revised submission.**

15D. Additional Safeguards

Will DEXA, pQCT, or other devices which emit radiation be used? ☐ Yes ☒ No
If yes, the IRB will notify the Auburn Department of Risk Management and Safety, who will contact the Alabama Department of Public Health (ADPH) and secure approval. Research which includes device(s) which emit radiation may NOT be initiated NOR will IRB stamped consent documents be issued until the IRB is notified of ADPH approval.

Will a Certificate of Confidentiality (CoC) issued by NIH be obtained ☐ Yes ☒ No If yes, include CoC language in consent documents and include the documentation of CoC approval. Research which includes a CoC may not be initiated NOR will IRB stamped consent documents be issued until the IRB is notified of CoC approval. AU Required CoC Language

Is the study a clinical trial? ☐ Yes ☒ No
If yes, provide the National Clinical Trial (NCT) # Click or tap here to enter text. **and include required clinical trial information in all consent documents. AU Clinical Trial Information**

16. Benefits

16A. List all realistic direct benefits participants can expect by participating in this study. (Compensation is not a benefit) If participants will not directly benefit check here. ☒

There are no direct benefits to the participants. for participating in this study.

16B. List realistic benefits for the general population that may be generated from this study.
The knowledge gained from the study will add to the advising literature and may be beneficial to the broader field of academic advising.

17. Protection of Data

17A. Data are collected:

☐ **Anonymously with no direct or indirect coding, link, or awareness by key personnel of who participated in the study (skip to item E)**

☐ **Confidentially, but without a link to participant's data to any identifying information (collected as "confidential" but recorded and analyzed "anonymous") (Skip to item E).**

☒ **Confidentially with collection and protection of linkages to identifiable information.**

17B. If data are collected with identifiers and coded or as coded or linked to identifying information, describe the identifiers and how identifiers are linked to participants' data.

Pseudonyms will be used in the research study. Participants will self-select a pseudonym that will be maintained in a password-protected document only accessible by the PI and Faculty Advisor. This will be kept separate from any other identifying information.

17C. Provide the rationale for need to code participants' data or link the data with identifying information.

This information will be kept allowing for member checking to support study credibility.

17D. Describe how and where identifying data and/or code lists will be stored. (Building, room number, AU BOX?) **Describe how the location where data is stored will be secured. For electronic data, describe security measures. If applicable, describe where IRB-approved and participant signed consent documents will be kept on campus for 3 years after the study ends.**

A password-protected Auburn Box folder only accessible by the PI and Faculty Advisor.

17E. Describe how and where data will be stored (e.g., hard copy, audio/ visual files, electronic data, etc.), and how the location where data is stored is separated from identifying data and will be secured. For electronic data, describe security. Note use of a flash drive or portable hard drive is not appropriate if identifiable data will be stored; rather, identifying participant data must be stored on secured servers.

Electronic data: A password-protected Auburn Box folder only accessible by the PI and Faculty Advisor.
Printed transcriptions: These will be labeled by pseudonym only and will be kept in a locked cabinet in the PI's office.

17F. List the names of all who will have access to participants' data? (If a student PI, the faculty advisor must have full access and be able to produce study data in the case of a federal or institutional audit.)

Judith Sanders (PI) and Leslie Cordie (Faculty Advisor)

17G. When is the latest date that identifying information or links will be retained and how will that information or links be destroyed? (Check here if only anonymous data will be retained ☐)

The pseudonym list will be deleted upon completion of the dissertation (proposed December 2023).

Version Date: 11/06/2022

CITI PROGRAM

Completion Date 22-Aug-2022
Expiration Date 21-Aug-2025
Record ID 50771625

This is to certify that:

Judith Sanders

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Responsible Conduct of Research
(Curriculum Group)
AU Basic RCR Training for ALL Faculty, Staff, Postdocs, and Students
(Course Learner Group)
1 - RCR
(Stage)

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wb9769a2d-dba7-4b9a-b040-fa49b8f8aee9-50771625

CITI PROGRAM

Completion Date 03-Dec-2021
Expiration Date 02-Dec-2024
Record ID 42923276

This is to certify that:

Judith Sanders

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

IRB # 2 Social and Behavioral Emphasis - AU Personnel - Basic/Refresher
(Curriculum Group)
IRB # 2 Social and Behavioral Emphasis - AU Personnel
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wee8ab7d4-46b1-40aa-84f6-2013606111f7-42923276

CITI PROGRAM

Completion Date 01-Dec-2021
Expiration Date 30-Nov-2024
Record ID 42968890

This is to certify that:

Judith Sanders

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

IRB Additional Modules
(Curriculum Group)
Workers as Research Subjects - A Vulnerable Population
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w8c0ee70e-2d26-4791-8387-f01537e93863-42968890

CITI PROGRAM

Completion Date 24-Oct-2021
Expiration Date 23-Oct-2024
Record ID 42940627

This is to certify that:

Judith Sanders

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

IRB Additional Modules
(Curriculum Group)
Internet Research - SBE
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w70daad04-9091-4e97-b179-bdf6b7496814-42940627

CITI PROGRAM

Completion Date 07-Jan-2021
Expiration Date 07-Jan-2024
Record ID 38525693

This is to certify that:

Leslie Cordie

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

IRB Additional Modules
(Curriculum Group)
Social, Behavioral and Education Sciences
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wb2a540ca-977c-4c78-8aab-5103415cef37-38525693

CITI PROGRAM

Completion Date 07-Jan-2021
Expiration Date 07-Jan-2024
Record ID 38525694

This is to certify that:

Leslie Cordie

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

IRB Additional Modules
(Curriculum Group)
Internet Research - SBE
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w2a1ad32d-f33b-4eaf-b147-262ef87d6c48-38525694

CITI PROGRAM

Completion Date 30-Aug-2022
Expiration Date 29-Aug-2025
Record ID 50995581

This is to certify that:

Leslie Cordie

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Responsible Conduct of Research
(Curriculum Group)
AU Basic RCR Training for ALL Faculty, Staff, Postdocs, and Students
(Course Learner Group)
1 - RCR
(Stage)

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w13c02594-4e1e-491e-b3e4-848b3a4906fa-50995581