ABSTRACT

MODLIN, CATHRYN ALLEGRA. Virtual Advising in the Community College Setting in a Pandemic Era: A Utilization-Focused Evaluation. Under the direction of Dr. Carrol Warren.

This evaluative study concentrated on the evaluation of virtual advising approaches that have taken place at a North Carolina community college since the pandemic. Through an application of utilization-focused evaluation (UFE), the researcher was able to conduct research activities to analyze the utilization of specific virtual advising tools and practices.

Virtual Advising in the Community College Setting in a Pandemic Era:
A Utilization-Focused Evaluation

by
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DEDICATION

This dissertation is dedicated to my family—Jalynn, Jace, Ellen, Kevin, Taylor. A special dedication goes to my mom for giving me the love, strength, and countless prayers needed to press on and without whom I would not have reached this achievement.

BIOGRAPHY

Allegra Modlin is a North Carolina native with an educational background in psychology, counseling, and community college leadership. The evaluator's educational background in community college leadership with specific emphasis on the NCCCS will further support the contextual and political nuances of conducting an evaluation at an institution within this system. Additionally, the evaluator's professional background in academic advising, advising leadership and quality enhancement plan (QEP) management foster the competencies necessary to conduct an evaluation including professional knowledge and project management.

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INTRODUCTION

This study sought to examine the synchronous virtual advising methods at one North Carolina community college through an evaluative approach, offering insight to the synchronous virtual advising utility and best practices to enhance services. Academic advising in higher education is an integral aspect of student success (Hu, 2020; CAS, 2018; Zhang, 2016; NACADA, n.d.; Iatrellis et al., 2017). This resource provides students with a campus-based service that connects them with a caring representative within their institution (CAS, 2018; King, 1993). Academic advising fosters multiple aspects of student success including academic and social integration (CCCSE, 2018; Chiteng Kot, 2014; Drake, 2011; King, 1993; Tinto, 2009; Tinto, 2012), persistence and retention (Bahr, 2008; Lotkowski et al., 2004; Tippetts et al., 2020; Vianden & Barlow, 2015), learning and academic performance (Erlich & Russ-Eft, 2013; Young-Jones et al., 2013; Mu & Fosnacht, 2019; Smith & Allen, 2014), university transfer (CCRC, 2021; Hatch & Garcia, 2017; Lazarowicz & McGill, 2022; Packard & Jeffers, 2013), and completion (Bettinger & Baker, 2014; Donaldson et al., 2016).

Academic advisors in community colleges are often front-line staff who aid students, particularly those with little knowledge about higher education, in understanding pertinent information about navigating college, degree, and course requirements (Zhang, 2016). Despite the plethora of evidence denoting the benefits of academic advising, a number of factors can constrain these services including advisor-to-student ratios, length of sessions, limited funding, and lack of understanding to support specific student populations such as international students (Hu, 2020; Margolin et al., 2013; Zhang, 2016). These challenges have been exacerbated by the onset of the COVID-19 pandemic which required educational institutions to swiftly transition from primarily in-person to virtual instruction and support services (Olneck-Brown, 2021; Toquero, 2020; Office for Civil Rights, 2021).

Regarded as the "Great Interruption" (Conley & Massa, 2022), the pandemic presented a swarm of challenges related to job loss (Chin et al., 2022), childcare (Zottarelli et al., 2021), housing and food security (Glantsman et al., 2022), mental and physical health (Chin et al., 2022; Hachey et al., 2022a), and financial instability (Chin et al., 2022). Higher education institutions, particularly community colleges that serve higher rates of low-income and minority students, felt the full weight of these challenges spill over into the education landscape (Crespín-Trujillo & Hora, 2021; Kim & Kessler-Eng, 2021; Office for Civil Rights, 2021; Smalley, 2021) with negative impacts on enrollment and retention (Causey et al., 2021; Fischer & Whatley, 2022; Juszkiewicz, 2020). While overall college enrollment dropped 3.5% between spring 2020 and spring 2021, community colleges were particularly affected with an enrollment decline of 9.5% (National Student Clearinghouse Research Center, 2021). Students withdrew from college for many of the aforementioned reasons that created barriers to access, progress, and success in college (Juszkiewicz, 2020). Among the multitude of challenges facing students and higher education professionals, digital divides presented additional obstacles to remain connected during remote instruction.

Digital divides related to inequities of technology and internet access as well as digital literacy skills were illuminated during remote learning (Crespín-Trujillo & Hora, 2021; Heidari et al., 2021; Kim & Kessler-Eng, 2021). Student reports of unstable internet connections, device malfunctions, and lack of access to hardware and software were among divides compounded by COVID-19 (Robert, 2022). Both students and practitioners indicated digital literacy skill gaps as some had never taken or taught an online course or had experience using online learning tools

(Kim & Kessler-Eng, 2021). These divides of access and skill are significant as technology has become deeply woven into the fabric of education (Heidari et al., 2021; Murphy, 2020; Ranglund et al., 2017; Rovai, 2001).

The integration of technology into higher education promotes flexibility, accessibility, and cost-effective services (Coussement et al., 2020; Toquero, 2020). Academic advising has harnessed technological capabilities to provide services through multiple modalities including expert advising systems (Assiri et al., 2020; Kuhail et al., 2022; Engin et al., 2014), text messaging (Arnold et al., 2020; Avery et al., 2020, Taylor & Serna, 2019; Tippetts et al., 2021), website information (Bailey et al., 2015; Margolin et al., 2012; Mu & Fosnacht, 2019), and social media (Argüello & Méndez, 2019; Junco et al., 2016). However, digital divides create concerning barriers as some students and practitioners lack the tools, connectivity, knowledge, and skills to effectively engage in a virtual learning environment (Heidari et al., 2021; Kim et al., 2018; Robert, 2022; Vogels, 2021). This problem is magnified by the risks posed to establishing meaningful connections with students that are evidenced to support integration and retention outcomes (Chiteng Kot, 2014; Drake, 2011; King, 1993; Tinto, 2012).

Problem Statement

As the scope of advising continues to transform in response to the diverse needs of learners, academic advisors are increasingly essential to promote student success (CCCSE, 2018). However, in an era of higher education that is adapting to a landscape forged by a global pandemic and technological advances, little is known about the utilization of virtual advising services as a way to facilitate student engagement or its impact on measures of student success such as retention. Much of the existing literature focuses on in-person or asynchronous virtual advising modalities and tools that do not provide a comprehensive evaluation of utility for primary stakeholders such as students and advisors. This is especially concerning given digital divides that may hinder students' access and engagement with virtual advising services. Furthermore, asynchronous forms of advising lack the essential aspect of human contact that facilitates interpersonal relationship building through visual and verbal cues (Gaines, 2014). If community colleges do not consider incorporating a structured evaluation process for synchronous virtual advising, then access to professional and personalized support that is evidenced to foster academic and social integration and retention may be impacted, thus contributing to a decline of advising utility and quality that is essential to student success.

Purpose

The purpose of this study was to evaluate synchronous virtual advising services in a North Carolina Community College using a utilization-focused evaluation approach. Academic advisors apply dynamic and personalized strategies to address the diverse needs of students (Drake et al., 2013) and provide holistic support (He & Hutson, 2016). Evidence supporting the meaningful and positive impact of academic advising clearly demonstrates that advisors are key stakeholders in supporting student success in an increasingly virtual learning landscape impacted by COVID-19. Academic advisors play a vital role in helping students integrate to college which, in turn, promotes persistence and retention (Chiteng Kot, 2014; King, 1993; Tinto, 2009). Therefore, virtual environments should aim to create a sense of community and individualized support (Rovai, 2001). Adapting to a landscape transformed by COVID-19 calls for higher education professionals to conceptualize an approach to synchronous virtual advising that is humanized instead of perpetuating a production (O'Banion, 1971) or cafeteria style service model (Bailey et al., 2015).

Research Questions

This study investigated the synchronous virtual academic advising practices at a North Carolina community college. This study was guided by one overarching research question:

What are the recommendations to attain a streamlined organizational structure for evaluating virtual academic advising services at one North Carolina community college based upon a utilization-focused evaluation?

Through the utilization-focused evaluation process, a subset of three questions informed the findings.

1. What are the motivations towards increasing the virtual presence of professional advising at one North Carolina community college?
2. What are the perceived challenges and opportunities experienced by professional advisors at a North Carolina Community College when providing virtual services?
3. What are the perceived best practices by professional advisors at a North Carolina Community College when providing virtual advising services to community college students?

Significance of Study

The COVID-19 pandemic altered the higher education landscape and propelled many institutions into a new normal. Juszkiewicz asserts that “everything is up for grabs” as a result of the reverberations of the pandemic (2020). College attainment is still a viable avenue toward employment and upward economic mobility (OASH, n.d.), yet students are reevaluating their college enrollment and continuation decisions (Juszkiewicz, 2020). As North Carolina community colleges continue to recover from the impact of COVID-19 (NC Community Colleges, 2022), it is imperative to invest in essential services such as academic advising that can continue moving the needle forward. Technological advances have the ability to support connections between students and a caring person (Troxel et al., 2021), such as an academic advisor. However, advising may be impacted by factors including its structure, content, accessibility, and delivery methods (Hu, 2020). Therefore, continuous evaluation and improvement of student engagement is essential (Otto, 2022).

There is considerable research about the digitization of advising services, but its scope, function, and purpose differs. Of the existing research, much is focused on asynchronous advising modalities that lose the human connection factor. Other studies have investigated virtual advising approaches from international or university perspectives that do not directly translate to the unique makeup of community colleges. Additionally, current literature does not provide a formal evaluation process of synchronous virtual advising services to determine if the utility of services meets primary user expectations and needs. This study contributes to the literature through findings that relied upon the implementation of a utilization-focused evaluation of synchronous virtual advising services at a community college to provide an example of a formalized and comprehensive evaluation of virtual advising services. In addition, this study offers insights that may inform best practices and considerations for future practice in community colleges.

Guiding Framework

Given the significant impact of COVID-19 on community college enrollment and retention, this study will be guided by Wesley Habley's (1981) Advisement-Retention Model that provides an explanation for the critical role of advising in student retention. Habley (1981) posits that impactful academic advising must be a student-centered, developmental process rather than prescriptive one. Additionally, while institutions may implement variables to promote retention, they do not eliminate the numerous reasons why students choose to leave college (Habley, 1981). With that understanding, institutions should aim to improve services that help students define their educational goals and relate those goals to their institution in order to increase students' desire to remain enrolled (Habley, 1981).

Habley's (1981) Advisement-Retention Model is comprised of three components: Educational Environment, Reasons for Leaving, and Reasons for Staying. Educational Environment is the center of the model and refers to the institution's impact on students via interactions with people, programs, classes, policies, and procedures (Habley, 1981). Reasons for Leaving include commonly cited reasons for student attrition such as perceptions of low concern for students, institutional mismatch, boredom, irrelevance, low effort to ability to reward ratio, health concerns, personal issues, and finances (Habley, 1981). Reasons for Staying foster students' desire to stay enrolled in college and include perceptions such as high concern for students, institutional match, relevance, stimulation, and high effort to ability to reward ratio (Habley, 1981).

The factors presented in the model that promote reasons for leaving or reasons for staying are viewed as a continuum, with the exception of health concerns, personal issues, and financial needs (Habley, 1981). The model as a whole asserts that student retention is more likely when students feel that their academic program is aligned with their educational goals; that they are in a stimulating learning environment; that institutional policies, processes, and people show a high level of concern for students' growth and development; and, that there is alignment between students' expectations for success and actual success. Quality academic advising can foster a staying environment by addressing each of the criteria for this model (Habley, 1981).

Definition of Terms/Key Terms

Persistence: "the percentage of students who return to college at any institution for their second year" (National Student Clearinghouse Research Center, 2022).

Retention: "the percentage of students who return to the same institution" (National Student Clearinghouse Research Center, 2022).

Utilization- focused evaluation: a 17-step evaluation framework that focuses on intended use by intended users through a highly personal and situational approach intended to inform thought and action (Patton, 2012).

Student engagement: describes the extent to which students participate in educationally linked activities and experiences as well as their perceptions about how aspects of their institutional environment support their learning and development (National Survey of Student Engagement, 2013).

Student success: a term to describe students' achievement of their individual goals as well as measurable attainment markers including academic achievement, persistence, acquired skills, career preparedness, and/or holistic wellbeing (Oklahoma State University, n.d.).

Virtual advising: academic advising services provided through a synchronous online platform.

Summary

An often cited statement by Light (2001) is "good advising may be the single most underestimated characteristic of a successful college experience". The evidence reinforcing this statement and supporting the benefits of academic advising are abundant. However, higher education practitioners, including advisors, are navigating into an evolving future of learning and engagement altered by a global pandemic and increasingly reliant on technology. Wesley Habley's (1981) Advisement-Retention Model touches on many aspects of students' decisions to stay or leave college following the onset of COVID-19. In order for academic advisors to successfully navigate the future of higher education and leverage technologies to maintain connection with students that support their retention and overall success, evaluating synchronous virtual services is warranted. The following chapter takes a deeper dive into the existing literature of community colleges, academic advising, the COVID-19 pandemic, and technologies redefining the makeup of student engagement.

LITERATURE REVIEW

This chapter provides an extensive review of literature on academic advising practices within higher education by beginning with a review of community college history and an introduction to the North Carolina Community College System (NCCCS). Understanding the history and mission of community colleges, particularly with the NCCCS, will provide a foundation to understand the impact of the COVID-19 global pandemic across the entire higher education landscape. The integral role of academic advising and the digitization of advising services and functions will also be discussed. Understanding the intersection of academic advising and technology is imperative to conceptualize the future of synchronous virtual advising in a pandemic era.

Community Colleges: History and Mission

To gain a comprehensive understanding of academic advising in community colleges, it is important to first appreciate the history and development of these open-door institutions and how their multiple missions influence the field of advising. For more than a century, community colleges have evolved and become increasingly interlaced with U.S. higher education. In their early years, community colleges, formerly junior colleges, provided more affordable access for an expanding higher education system (Brint & Karabel, 1989; Cohen, Brawer, & Kisker, 2013, p.1). Significant events including the Great Depression, World War II, and the President’s Commission on Higher Education have influenced the development and purpose of community colleges in addition to a rise in immigrant and adult learners (Brint & Karabel, 1989; Clotfelter et al., 2013; Cohen et al., 2014; Ratcliff, 1994). Since their inception, community colleges have served a variety of purposes.

For early stakeholders such as William Rainey Harper, junior colleges and the formation of associate degrees provided an avenue for some students to enter the workforce after their first two years of college rather than continue their studies (Brint & Karabel, 1989). These institutions also served as cultural centers for students' local communities through the inclusion of community service in two-year college curriculums (Cohen et al., 2014; Ratcliff, 1994). Developmental and continuing education expanded as adult learners and students who struggled in secondary schools increasingly enrolled in community colleges (Cohen et al., 2014). Technical training also became increasingly important for employers post-World War II (Clotfelter et al., 2013).

Within the last decade, research shows that community colleges provide access to nearly half of the United States' undergraduate students (Bailey et al., 2015; Packard & Jeffers, 2013). As open-door institutions, community colleges are committed to providing access and opportunity to postsecondary education as a means of upward economic mobility (Bailey et al., 2015; National Student Clearinghouse, 2020) through developmental education, adult basic education, workforce training, high school equivalency programs, and university transfer preparation (Bailey & Morest, 2004; Clotfelter et al., 2013; King, 1993; Packard & Jeffers, 2013). Community colleges serve diverse student populations, particularly a disproportionate number of underrepresented students including those from low-income, first-generation, nontraditional, international, and minority populations (Bailey et al., 2015; Bailey, et al., 2005; Packard & Jeffers, 2013; Van Jura & Prieto, 2021). Just as significant events of the past have influenced the evolution of community colleges, the COVID-19 pandemic has thrust two-year institutions into a new era where learning and student support services have had to adapt to meet the needs of their diverse student populations (Hu, 2020), and North Carolina has not been immune to the increased need for virtual services.

The North Carolina Community College System

The North Carolina Community College System (NCCCS) emerged from efforts to develop a skilled workforce that would bolster economic needs through applied programming (Shugart, 2019). Now, the NCCCS is the third largest in the U.S. by number of colleges, with 58 institutions across the state (North Carolina Community Colleges, n.d.a.). The mission of the NCCCS is to provide "high-quality, accessible educational opportunities that minimize barriers to post-secondary education, maximize student success, develop a global, multicultural and competent workforce, and improve the lives and well being of N.C. citizens" (North Carolina Community Colleges, n.d.a.). To further understand North Carolina community colleges, it is important to realize the demographic background of the students who attend in pursuit of higher education.

In the 2021-2022 reporting year, over 574,000 students enrolled in the NCCCS (North Carolina Community Colleges, n.d.b.). Across the 2018-2019 and 2021-2022 reporting years, more than half of total enrollment accounted for female and white students (North Carolina Community Colleges, n.d.b.). Within the same time period, black students accounted for an approximate 22% of total enrollment, followed by Latinx students at 12% (North Carolina Community Colleges, n.d.b.). Students identified as American Indian/Alaskan, Asian, or as having multiple racial/ethnic identities all averaged around 2% (North Carolina Community Colleges, n.d.b.). In terms of age, students ranging from 25-44 years old accounted for an average of 36% of total enrollment, followed by an average of 32% for students ranging in age from 18-24 years (North Carolina Community Colleges, n.d.b.). Mirroring the national trends of community college history and development, the NCCCS offers a variety of educational opportunities to students.

Education options to reach the thousands of diverse students served in the NCCCS annually include flexible and affordable programs to help students with university transfer, workforce training, basic skills, career and technical education, apprenticeships, and dual enrollment opportunities for high school students (North Carolina Community Colleges, 2023). O'Banion (2018) asserts that North Carolina is a flagship state and model for other community colleges based upon the many creative partnerships established between community colleges and business and industry. However, according to the North Carolina Community College System 2018-2022 Strategic Plan, there is a gap between the number of working adults ages 18-64 that have a postsecondary degree or other credential and the number of projected jobs that will require postsecondary education (North Carolina Community Colleges, 2018). The postsecondary attainment gap also varies by race and ethnicity as well as sex. White and Asian residents as well as women hold an associate degree or higher credential more so than their Black, Latinx, Native, and male counterparts (myFutureNC, 2019; Tippett & Kahn, 2018).

Concerns about attainment gaps have been compounded by the COVID-19 global pandemic. The pandemic uprooted all facets of everyday life thus shifting the higher education landscape and pushing educators everywhere to re-envision the delivery of education and support services. The NCCCS has been no exception, having to adapt to a plethora of disruptions and changes as a result of the global pandemic. Looking to the future of the NCCCS and support services such as academic advising requires an understanding of the impact of COVID-19 on the education landscape.

COVID-19 Global Pandemic

The COVID-19 global pandemic resulted in an unprecedented upheaval of every aspect of everyday life. Likened to a hurricane (Floyd, 2020), COVID-19 caused a cascade of challenges including economic turbulence (Gittleman, 2022), reduced work hours and job loss (Chin et al., 2022), financial instability (Chin et al., 2022), housing and food insecurity (Glantsman et al., 2022), limited access to childcare (Zottarelli et al., 2021), exacerbated mental and physical health challenges (Chin et al., 2022; Hachey et al., 2022a), quarantines and stay-at-home orders (CDC, 2023), pandemic fatigue (Jørgensen et al., 2022), political unrest (Jørgensen et al., 2022), and negative impacts on healthcare (Andraska et al., 2021) and public health infrastructures (French et al., 2021). Education also felt the effects of the pandemic with every level from preschool to graduate school rapidly transitioning to online learning (Hu, 2020; Juszkiewicz, 2020).

COVID-19 Higher Education Disruptions and Challenges

The unprecedented effects of COVID-19 on higher education has been coined by Conley and Massa as the “Great Interruption” (2022). The rapid transition to distance learning rippled across higher education resulting in disruptions related to admissions and enrollment, costs on students, institutional budgets, loan repayments, student work study, housing and dining, study abroad, and athletics (Smalley, 2021). For college faculty, the pandemic capsized instructional plans thus creating a number of challenges, particularly among community colleges.

Faculty Challenges.

Following the onset of the COVID-19 pandemic, community college instructors navigated a swift transition to online instruction which, under normal circumstances, would have required a greater amount of time to develop content and utilize the technology tools needed to deliver a course (Crespín-Trujillo & Hora, 2021). Community colleges with fewer resources struggled to make the rapid adjustment due to inadequate professional training and access to technology for underrepresented students (Hu, 2020; Kim & Kessler-Eng, 2021). Although some faculty were in a strong position to teach online, others had a reluctance toward online instruction for reasons such as not embracing new technologies or perceiving online education as lower quality (Crespín-Trujillo & Hora, 2021).

Programs that require additional hands-on learning related to skilled trade work were especially impacted by the transition to online instruction (Schanzenbach & Turner, 2022), pushing faculty to strategize ways to help career and technical education students (CTE) catch up on time lost during remote instruction (Crespín-Trujillo & Hora, 2021). Faculty also had to find innovative and safer ways of providing in-person instruction when campuses began reopening to accommodate programs that required in-person engagement such as healthcare, manufacturing, agriculture, and truck driving (Crespín-Trujillo & Hora, 2021). Challenges to find safer ways to offer in-person instruction were compounded by reduced custodial staff, lack of safety supplies, and infrastructure problems (Kim & Kessler-Eng, 2021). Hardships experienced following the onset of the pandemic not only impacted college personnel and faculty; COVID-19 also unleashed a torrent of challenges on students.

Student Challenges.

Barriers to college access and completion have been cited well before the onset of the pandemic, including financial constraints and dependent care (CCCSE, 2021). The disruptions in higher education as a result of the "Great Interruption" (Conley & Massa, 2022) exacerbated these challenges for some students (CCCSE, 2021). Community college students experienced decreased access to support programming such as food, childcare, clothing, and on-campus health services (Zottarelli et al., 2021). At the same time, their need for support increased in areas including housing and utilities (Black & Taylor, 2021; Chin et al., 2022), food security, mental health services (Chin et al., 2022), paying for college, and accessing internet and computer devices (CCCSE, 2021).

These needs varied by student characteristics and demographics (Glantsman et al., 2022). For example, international students enrolled in U.S. community colleges were disproportionately affected by the pandemic as compared to their domestic counterparts for reasons including their proximity to home, travel restrictions, limited access to essential campus resources such as dining halls and housing, and isolation from peers (Whatley & Fischer, 2021). As a result of the transition to online learning, many students reported an impact on their motivation and performance, and some students reported expected delays in graduation (Chin et al., 2022). Students with disabilities also faced challenges providing documentation to receive accommodations, obtaining access to assistive technology, and receiving testing accommodations in the remote learning environment (Aquino & Scott, 2023). Issues of access to resources necessary to participate in online learning impacted many students and college personnel.

Digital Divides

Despite most Americans being active online, geographical and financial barriers still exist among rural and low-income residents (Sablik, 2020). These barriers are part of the digital divide which is the “gap between those who have access to technology, the internet and digital literacy training and those who do not” (North Carolina Department of Information Technology [NCDIT], n.d.a). As instruction and learning swiftly moved to a virtual landscape following the onset of COVID-19, digital divides became increasingly apparent for practitioners and students alike (Crespín-Trujillo & Hora, 2021; Kim & Kessler-Eng, 2021).

Digital divides impact Americans in varied ways. For example, approximately four out of every ten adults with lower incomes don't have broadband internet service or a desktop or laptop computer (Vogels, 2021). Consequently, Americans with lower incomes are more likely to rely on smartphones for internet access and completing tasks that would normally be completed on a larger screen (Vogels, 2021). Following the onset of the global pandemic, students indicated digital divides such as unstable internet connections; device breakages or malfunctions; not being able to run required applications or software, or not having the needed applications or software to perform a task; not being able to access a primary device when needed; and not having appropriate device configurations to perform a task (Robert, 2022). Among reports of unstable internet connections, some students experienced lost connectivity during a class, exam, or other synchronous activity within the last year (Robert, 2022). Beyond barriers of access, there are additional concerns about students’ ability to use digital technology and be academically engaged in the virtual environment (Heidari et al., 2021).

Digital literacy refers to the “ability to use information and communication technologies to find, evaluate, create and communicate information, requiring both cognitive and technical skills” (NCDIT, n.d.b). Considering this aspect of the digital divide is imperative as digital literacy can affect student engagement (Kim et al., 2018; Heidari et al. 2021) and success in virtual learning environments (Bergdahl et al., 2020). Community college faculty reports of student engagement at a community college showed that many students had never taken an online course in addition to lacking the appropriate technology or internet for online learning (Kim & Kessler-Eng, 2021). Digital literacy also presented a challenge for faculty with little experience teaching online or utilizing online technology (Kim & Kessler-Eng, 2021). Overall, digital divides and other hardships encountered by practitioners and students in the wake of COVID-19 resulted in detrimental effects on enrollment and retention.

COVID-19 Impact on Enrollment and Retention

Higher education disruptions due to the pandemic caused severe impacts on enrollment and retention. Overall postsecondary education enrollment dropped 3.5% from spring 2020 and spring 2021, which is seven times larger than the drop in enrollment reported in the spring of 2020 (National Student Clearinghouse Research Center, 2021). Graduating high school students greatly impacted college enrollment with a 6.8% high school-to-college enrollment decline from fall 2019 to fall 2020 (Causey et al., 2021). High school graduates from low-income, high poverty, and high minority high schools were disproportionately affected as compared to their more advantaged counterparts (Causey et al., 2021).

Enrollment concerns were particularly heightened for community colleges already operating under financial constraints and declining state funding (Fischer & Whatley, 2022).

Where the prospect of increased enrollment in response to labor market downtowns seen in past recessions (Schanzenbach & Turner, 2022) once was, community colleges in the COVID-19 era faced sharper declines in enrollment than their other higher education institution counterparts (National Student Clearinghouse Research Center, 2020; 2021). Fall 2020 enrollment estimates from the National Student Clearinghouse Research Center (2020) indicated public two-year institutions experienced an enrollment decline of 10.1% from the previous year. The spring of 2021 continued to hit community colleges the hardest with an enrollment decline of 9.5% (National Student Clearinghouse Research Center, 2021). In addition to enrollment declines, many students withdrew from college following the onset of COVID-19 (Juszkiewicz, 2020).

Students’ decisions to withdraw from college following the onset of the global pandemic occurred for many reasons (Juszkiewicz, 2020). For some there was an unwillingness or inability to switch to online learning (Juszkiewicz, 2020). For others, financial challenges due to job loss or reduced work hours resulted in an inability to afford college (Juszkiewicz, 2020). Familial obligations such as childcare presented additional obstacles for some students (Juszkiewicz, 2020). In response to the varied and negative effects of COVID-19, a number of measures have been taken to counter the hardships assailing higher education constituents.

Higher Education’s Response to COVID-19

Higher education institutions responded to the COVID-19 pandemic by implementing a variety of counter measures to offset the cascade of harmful effects. Many institutions, including community colleges, temporarily closed brick and mortar campus locations following national, state, and local guidance (Crespín-Trujillo & Hora, 2021). Instructors adopted a variety of instructional methods including asynchronous, synchronous, and hybrid teaching (Liguori et al., 2021). Measures to address digital divides during remote instruction included providing laptops and tablets to students along with information about accessing free or reduced cost Wifi access (Kim & Kessler-Eng, 2021). Support services transitioned online including advising, counseling, tutoring, financial aid, and registration online (Kim & Kessler-Eng, 2021). Flexibility with grading, attendance, and withdrawals were encouraged to help students cope (Crespín-Trujillo & Hora, 2021). Upon return to campus, colleges implemented blended and reduced capacity classes, COVID-19 screenings, social distancing, and continuous sanitation of equipment were among measures institutions took to promote health and safety (Crespín-Trujillo & Hora, 2021; Olneck-Brown, 2021; Toquero, 2020). In addition to instructional strategies, funding relief was also dispersed to alleviate the hardships faced by higher education constituents.

Funding Relief

Three relief packages–the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Coronavirus Response and Relief Supplemental Appropriations (CRRSA) Act, and the American Rescue Plan (ARP) Act– provided by the federal government offered support to higher education institutions and their students during COVID-19 through the distribution of over $76 billion (CCRC, 2022). However, the approximate $14 billion of the CARES Act allotted to the Office of Postsecondary Education, known as the Higher Education Emergency Relief Fund (U.S. Department of Education, 2023), was formulated to use full-time-equivalent (FTE) students to measure the size of a student population (CCRC, 2022). This resulted in less funding for community colleges, who commonly support more part-time students, than their four-year counterparts (CCRC, 2022; Whatley & Fischer, 2021).

Among the multitude of challenges facing higher education following the pandemic, the opportunity arose to conceptualize innovative ways to leverage technology to engage students through services like academic advising (Floyd et al., 2021; Mangundu, 2022). According to Mu and Fosnacht (2019), academic advisors are in a unique position to help students connect their academic pathways to their overarching educational, personal, and professional goals. To envision how academic advising can utilize virtual technology to support the missions of community colleges, like those in the NCCCS, it is imperative to understand the evolution of this profession and how it has adjusted in a pandemic era.

Academic Advising

Academic advising emerged in the nineteenth century as a faculty-led responsibility to support students (Cook, 2009; Gillispie, 2003; Roessger et al., 2018). As the higher education landscape expanded through increased enrollment, additional curricula, the establishment of community colleges, and the addition of federal financial assistance, the need for advising services also grew (Cook, 2009). To alleviate the complexities of navigating the higher education system and promote student persistence and graduation, advising has become a professional service for many colleges (Mu & Fosnacht, 2019; Thelin, 2011, p. 329). Professional advising as a distinct role assigned to staff gained traction with the establishment of the National Academic Advising Association (NACADA) in the late 1970s (Cook, 2009; Self, 2011, p. 268).

Academic advising is now a multifaceted profession aiming to help students understand educational benefits (Crockett, 1978, p. 30) and connect their academic choices to their goals (Bailey et al., 2015, p. 58; Mu & Fosnacht, 2019). Academic advising is more than prescriptive or clerical work; it is a collaborative, decision-making relationship (Drake, 2011). According to the National Academic Advising Association (NACADA), academic advising is “a series of intentional interactions with a curriculum, a pedagogy, and a set of student learning outcomes” (2006). King (1993) argues that academic advising is the only structured service that connects students to a concerned representative of their institution (pp. 21-22). This service allows students to develop a personal, consistent relationship with someone in their institution that cares about them (Chiteng Kot, 2014; Cuseo, 2003; Drake, 2011).

Crockett (1978) reasons that effectively delivered academic advising helps students establish more mature education and career goals, strengthens the connection between academic preparation and work, and supports positive student attitudes contributing to better persistence (pp. 29-30). To achieve this, academic advisors use various methods to guide students toward greater self-awareness, identify academic challenges, and set goals (Harris, 2018). Academic advisors help students establish meaningful learning experiences and understand the connection these have to their future career and/or transfer goals (CCCSE, 2018; Cuseo, 2003; Chiteng Kot, 2014; Hunter & White, 2004; King, 1993). To better understand the manner in which academic advising is delivered to students, particularly through virtual modalities, it is essential to grasp the organizational, conceptual, and strategic methods guiding institutions.

Advising Structures, Frameworks, and Approaches

The following segment of the literature review will organize academic advising in terms of organizational structure, advising frameworks, and advising strategies to delineate these interconnected dimensions. Organizational structure describes the institutional makeup for providing advising services and is important to assess to ensure students are provided quality services over time (Pardee, 2004). An advising framework points toward the overarching goal of an advising program whether it be to prescribe, teach, or holistically develop students (Forbes, 2021). An advising approach is the strategic manner in which advising is implemented (Forbes, 2021; Drake et al., 2013).

Organizational Structures of Advising

There are seven basic organizational structures of academic advising: faculty only, supplementary, split, dual, total intake, satellite, and self-contained (Braun & Zolfagharian, 2016; King, 1983, pp. 48-49). These seven structures can be condensed into the three most common advising models described by Pardee (2004) as centralized, decentralized, and shared. Recognizing these organizational models is imperative to understand where and who provides advising services, particularly in a shifting higher education landscape that relies more on virtual technologies to remain connected with students.

Centralized Structure.

The centralized structure is most frequently found at two-year institutions wherein all advising takes place in one location primarily supported by professional advisors (Braun & Zolfagharian, 2016; Pardee, 2004; Roessger et al., 2018). Professional advisors are staff who devote the majority of their time to advising students (Self, 2011). There are a number of advantages to employing professional advisors including availability to students, advising-centric professional development, and broad knowledge across multiple academic disciplines in addition to college policies and procedures (Self, 2011). Advisors operating in a centralized structure assist students with completing core curriculums, course selections, program planning, accessing campus resources, and academic success strategies (Chiteng Kot, 2014). Diverging from the centralized structure is decentralized advising where faculty lead the charge in their respective program areas.

Decentralized Structure.

The decentralized advising structure is composed of faculty located in students' respective departments (Braun & Zolfagharian, 2016; Pardee, 2004; Roessger et al., 2018). Faculty advisors are faculty members primarily responsible for teaching and research who have the additional responsibility of advising students (Hemwall, 2011; Self, 2011). Although faculty advising can foster excellent mentoring relationships (Self, 2011), faculty who advise often receive little reward or recognition for advising students; have little time to advise; and lack the formal training to advise (Hemwall, 2011). A third approach that relies upon overlapping elements of the centralized and decentralized structures is the shared advising structure.

Shared Structure.

The shared advising structure combines aspects of centralized and decentralized advising (Braun & Zolfagharian, 2016). Under the shared structure of advising are supplementary and split models (Pardee, 2004). In the supplementary model, a central subset of staff are placed to support department faculty advisors (Pardee, 2004). In the split model, advising center staff typically support a specific group, such as pre-major students, before they transition to departmental faculty advisors (Pardee, 2004; Roessger et al., 2018). Within the organizational structure of advising, practitioners employ a cache of strategic advising frameworks and approaches to attend to students' varied goals and needs. To gain perspective on how academic advisors help students successfully navigate to and through their postsecondary education, particularly in a virtual landscape, consideration must be given to the advising frameworks that inform their practice.

Academic Advising Frameworks

According to Drake et al. (2013), quality academic advising helps students make sense of their values, beliefs, and experiences. Because all students have individual interpretations of their experiences, there is no single advising framework that is absolute (Drake et al., 2013). Despite these frameworks being presented as distinct ideas, they are not mutually exclusive (Forbes, 2021; Drake et al., 2013). This section will review three well-known advising frameworks and how they set the stage for advising practitioners.

Prescriptive Advising.

Prescriptive advising is a framework that focuses on academic tasks including course selections and registration, explaining degree requirements, and reviewing academic policies (Crookston, 2009; Drake, 2011; Harris, 2018; Mu & Fosnacht, 2019). This form of academic advising is based on authority and likened to a physician diagnosing and writing a prescription for a patient (Crookston, 2009; Drake, 2011; Harris, 2018). Although prescriptive advising provides necessary information for program progression, it does not facilitate an advising relationship as the student has little active participation (Barbuto et al., 2011; Braun & Zolfagharian, 2016; Harris, 2018). With this understanding, prescriptive advising alone is not a beacon for what may be considered excellent advising (Lowenstein, 2005). Although prescriptive advising is at times an element of the advising process (Lowenstein, 2005), the additional two frameworks incorporate a more interactive, student-centered approach.

Advising as Teaching.

Advising is not an activity reserved solely for teachers, but it is an integral part of teaching (Hines, 1981). According to Hines (1981), once advising is seen within the context of teaching, it can be described as a decision-making process where communication and information shared by advisors helps students realize their maximum potential. Advisors help facilitate student learning and the development of an educational plan for meaningful action (Kimball & Campbell, 2013). While the details of the educational plan may vary, they should all guide students toward learning experiences that foster their knowledge and skills (Kimball & Campbell, 2013). From this perspective, good advising can be viewed as a form of teaching (Kimball & Campbell, 2013).

Developmental Advising.

Developmental advising is the most fundamental, comprehensive, and prevalent framework for academic advising (Grites, 2013; McGill, 2016). It employs a more holistic approach by seeking to understand the various aspects of a student's life (Crookston, 2009; Drake, 2011; Grites, 2013; Harris 2018). Based on several developmental theories (Harris, 2018), this approach utilizes advising as a form of teaching that promotes goal setting, problem solving, growth and enhancing students' self-awareness (Braun & Zolfagharian, 2016; Mu & Fosnacht, 2019). Beyond the framework of advising, there are numerous strategic approaches that define specific actions advisors utilize to support students (Forbes, 2021; Kimball & Campbell, 2013).

Advising Approaches

Within the overall makeup of advising, academic advisors should use an eclectic mix of strategies that adapt to the diverse needs and learning styles of their students (Drake et al., 2013). Among these strategic approaches are appreciative, proactive, and strengths-based advising.

Appreciative Advising.

Evolving out of Appreciative Inquiry (AI), appreciative advising is a strategic and collaborative asset-oriented approach that utilizes positive, open-ended questions to help students reach their potentials and achieve their dreams (Hutson et al., 2014; Varney, 2013; Zhang et al., 2017). Appreciative advising aligns with developmental advising in its emphasis on a collaborative advising relationship that promotes holistic student growth (He & Hutson, 2016). It extends beyond developmental advising with its focus on students' strengths as well as a view that students may achieve success through unique pathways rather than a general pre-established pattern (He & Hutson, 2016). Appreciative advising consists of six phases: disarm, discover, dream, design, deliver, and don't settle (Bloom et al., 2008; Hutson et al., 2014; Zhang et al., 2017). Advisors do not necessarily progress through all six phases in each session or in a sequential manner, but they each offer guidance for effectively engaging students (Bloom et al., 2013).

Proactive Advising.

Proactive advising, sometimes referred to as intrusive advising, involves intentional outreach to students at strategic times throughout their academic journeys (Garing, 1993; Mu & Fosnacht, 2019; Van Jura & Prieto, 2021; Varney, 2013). This approach implements positive qualities of both prescriptive and developmental advising where academic advisors care for the wellbeing of all students (Varney, 2013). Establishing an advising relationship through proactive means may promote students' sense of engagement with their institution, help students take responsibility for their academic success, and improve student persistence (Van Jura & Prieto, 2021; Varney, 2013). To establish the advising relationship through a proactive approach, advisors should anticipate students' needs and monitor for early warning signs, and initiate contact with students and offer assistance before they ask for help (Van Jura & Prieto, 2021; Varney, 2013). A proactive advising approach is beneficial for at-risk student populations such as students demonstrating poor academic performance (Mu & Fosnacht, 2019; Van Jura & Prieto, 2021; Varney, 2013).

Strengths-Based Advising.

Two schools of thought have emerged in higher education that focus either on admitting the academically brightest students to college or implementing remediation during the first year of college to address students' weaknesses (Schreiner, 2013). Although both mentalities are still portrayed in higher education, they overlook the integral impact of motivation on student success (Schreiner, 2013). A strengths-based approach to academic advising does not focus exclusively on students' deficiencies, but rather emphasizes their talents and assets as tools to address potential challenges, complete college, and achieve a fulfilling college experience (Schreiner, 2013). This moves the spotlight away from problems and toward possibilities by increasing students' self-awareness and confidence, providing encouragement and reinforcement, and helping students discover how to apply their strengths to achieve their maximum potential (Schreiner & Anderson, 2004).

All told, the plurality of advising approaches provides an avenue for academic advisors to apply these methods in a manner that meets the unique needs of their students and institutions (He & Hutson, 2016). The following section of the literature review explores several areas of student success influenced by the strategies deployed through academic advising. Assessing measures of student success influenced by advising is necessary to appreciate the integration of technology, particularly to facilitate advising services through a synchronous virtual platform.

Academic Advising and Student Success

The following section affirms the plethora of evidence across decades of research demonstrating the positive impact of academic advising on measures of student success including academic and social integration, persistence and retention, learning and academic performance, transfer, and completion. To conceptualize how academic advising may be effectively replicated through virtual modalities to support students in an environment disrupted and changed by COVID-19, a review of the existing literature is warranted.

Academic and Social Integration

Academic advisors play a vital role in helping students integrate into the academic and social systems of their institution (Chiteng Kot, 2014; King, 1993; Tinto, 2012, p. 7). Successful integration is imperative as it promotes growth, satisfaction, and overall college success (Chiteng Kot, 2014; King, 1993; Tinto, 2009; Tinto, 2012, p. 7). Drake (2011) says that students who are the happiest and most academically successful are those with a well-established relationship with someone such as an academic advisor that helps navigate the academic and social aspects of college.

Tinto (2009) argues that academic and social involvement is most critical during the first year of college when students' success hangs in the balance. At this initial yet pivotal time, the transition to college can be challenging as students navigate confusing administrative processes and program requirements, lack of academic preparation, and non-academic barriers such as financial constraints (Avery et al., 2020; Donaldson et al., 2016; Goldrick-Rab, 2010; Ott et al., 2019). Academic advisors facilitate academic integration by helping students understand expectations, navigate college, and connect to campus resources (CCCSE, 2018; King, 1993; Zhang, 2016; Zhang, 2018). They guide students through multiple decisions including course selections, program planning, career planning, and personal development (Mu & Fosnacht, 2019). To do this, advisors assess students' backgrounds and placement to ensure they are placed in appropriate and challenging coursework (King, 1993). They help students understand the differences between remedial and college curriculum classes (Person et al., 2006; Woods et al., 2017) and course prerequisites (King, 1993). Advisors also account for factors impacting scheduling decisions such as finances, familial and work responsibilities (King, 1993).

King (1993) asserts that advisors who are knowledgeable, ardent, and have a passion for working with students may foster persistence (King, 1993). A study by Hatch and Garcia (2017) investigated how advising activities during the first three weeks of enrollment among first-time community college students impacts persistence. Subtle connections to students' earliest persistence decisions showed that students may benefit from different advising approaches at different times and that practitioners should not underestimate the importance of establishing students' academic and social networks (Hatch & Garcia, 2017). Adapting advising approaches to foster integration also includes multicultural competence when working with diverse groups such as international students.

A qualitative study of international students attending a community college utilized Bronfenbrenner's ecological model to assess how academic advising of this population is influenced by individual backgrounds and environments (Zhang, 2018). International student regulations and policies presented challenges for students and academic advisors in addition to cultural and language differences emphasizing the need for advisors to incorporate a multicultural approach to their practices (Zhang, 2018). Despite these challenges, the international student participants still viewed their interactions with advising as an important contributor to their academic and social integration at their institution (Zhang, 2018). Fostering successful integration does not end with a particular group or time. A sense of belonging and connectedness impacts student retention well beyond the first year of enrollment.

In a longitudinal study by Allen et al. (2008), the effects of academic performance, motivation, and social connectedness on third-year retention, transfer, and dropout patterns were assessed across 23 four-year institutions. Predictors of first-year academic performance and third-year enrollment status related to pre-college academic preparation, demographic data, and measures related to motivation and social connectedness were accounted for during analysis (Allen et al., 2008). Their study revealed that along with the motivation construct of college commitment, social connectedness had a positive direct effect on student retention, reinforcing the importance of students having a sense of belonging within their institutions (Allen et al., 2008). As findings from Allen et al. (2008) show, successful integration to college facilitates a sense of belonging and connectedness that, in turn, supports additional measures of success including persistence and retention.

Persistence and Retention

Persistence and retention are two areas of great concern for higher education institutions, including community colleges (Aulck & West; 2017; Bettinger & Baker, 2014; Hatch & Garcia, 2017; King, 1993; Nutt, 2003; Ott et al., 2019; Tinto, 2009; Tirrell & Quick, 2012). The National Student Clearinghouse Research Center, defines persistence as "the percentage of students who return to college at *any* institution for their second year", whereas retention is defined as "the percentage of students who return to the *same* institution" (2022). Increased public scrutiny and pressure from policymakers along with tightened budgets are among factors driving concerns about persistence and retention, and for sound reasons (Chiteng Kot, 2014). The COVID-19 global pandemic hit higher education with an incredible force that plummeted enrollment National Student Clearinghouse Research Center, 2021. Many institutions scrambled to move brick and mortar instruction and services online to retain students (Crespín-Trujillo & Hora, 2021).

A look at recent data from the National Student Clearinghouse Research Center shows that among students entering college in fall 2020, community colleges saw increases in persistence and retention but declines in first-time starters (Gardner, 2022). And although persistence and retention rates are improving, they've yet to reach pre-pandemic levels (Gardner, 2022). These results also vary when disaggregated by race and ethnicity, gender, and full- versus part-time enrollment status highlighting disparities among underrepresented student populations (Gardner, 2022). Despite this evidence, inequities related to funding between two-year and four-year institutions that are vital to student success persist (CCRC, 2022).

Community colleges receive less funding per student than their four-year counterparts despite providing access to higher education for more underrepresented populations that would benefit from additional resources to promote their success (CCRC, 2022). Institutions with better resources have higher retention and attainment rates, but community colleges often lack the resources needed to implement reforms that may lead to improved and equitable student outcomes (CCRC, 2022). Despite limited funding, academic advising is a common resource invested in by higher education institutions, including community colleges, to advance persistence and retention outcomes (Chiteng Kot, 2014).

Extensive research has investigated the role of academic advising in relation to persistence and retention (Bahr, 2008; Lotkowski et al., 2004; Tippetts et al., 2020; Vianden & Barlow, 2015). An earlier study by Bahr (2008) sought to understand the effect of advising on students' attainment including whether academic preparedness or students' race or ethnicity influenced these outcomes. Data collected from over 100 community colleges was analyzed across two cohorts (remedial math and transfer seeking) of first-time college freshmen (Bahr, 2008). Findings showed that although some differences occurred across cohort and race, academically underprepared students appear to benefit more from academic advising than their college-ready counterparts and that, overall, race has little influence on the effects of advising as it relates to remediation and transfer (Bahr, 2008). The results of this study contrasted Clark's (1960) earlier assertion that advising has a cooling out effect on community college students.

In another study, Ott et al. (2019) researched the effects of short-term coaching in two Montana community colleges. First-year students were paired with a trained coach to receive support on any topic during their first semester of enrollment (Ott et al., 2019). Results of the study found positive impacts on student retention and achievement, particularly among students who met with their coach two or more times (Ott et al., 2019). Additional research also supports the impact of meeting with an advisor.

Tippetts et al. (2020) conducted a quantitative study at a large western university to determine if one or more academic advising sessions impacted the likelihood of persistence. Their findings suggest a significant association between academic advising and student persistence (Tippetts et al., 2020). Meeting with academic advisors may help students navigate complex information and offering alternative advising services such as evening or virtual support may further assist part-time working students (Tippett et al., 2020).

Vianden and Barlow (2015) investigated the relationship between students' perceptions of academic advising and their loyalty to the institution. Their research confirmed that students' perceptions of the quality of academic advising has a meaningful connection to the student-university relationship (Vianden & Barlow, 2015). These findings support academic advising as a relationship-building tool that helps students develop institutional loyalty even beyond graduation (Vianden & Barlow, 2015).

Affirming the significance of holistic advising approaches, VanOra (2019) sought to better understand the goals and aspirations of community college students' motivating them to attend and persist in college. VanOra noted four overarching themes related to students' motivation to attend college: constructing themselves as a scholar, making their family proud, social mobility, and developing a more accomplished and purposeful sense of self (2019). Students' intentions strike a balance between intrinsic motivations and desires for social mobility and financial freedom (VanOra, 2019). These findings emphasize the need for practitioners to not only understand students as they are, but also who they hope to become (VanOra, 2019).

In times of financial constraint, measures of student success including persistence and retention will continue to be of significant concern for college institutions (Nutt, 2003). Programming aimed at retention efforts should not limit itself solely to aiding students with mastering course content as this alone does not address building self-confidence and motivation, goal setting, institutional commitment, or social support and engagement (Lotkowski et al., 2004). Efforts focused on persistence and retention must recognize the value of academic advising and its place as the hub of a collaborative and institution-wide effort (Nutt, 2003), including facilitating student learning and academic performance.

Student Learning and Academic Performance

Good advising translates to a form of teaching (Kimball & Campbell, 2013), thus consideration must be given to how advising fosters learning and academic performance. The following research studies show how effective advising enhances student learning and academic performance by fostering skills such as self-efficacy and self-regulated learning (Erlich & Russ-Eft, 2013), and responsibility and study skills (Young-Jones et al., 2013).

Erlich and Russ-Eft (2013) studied how the social cognitive theory constructs of self-efficacy and self-regulated learning could be used within the context of academic advising to measure student learning outcomes at a community college. Self-efficacy refers to one's beliefs about their capabilities (Bandura, 1997, p. 11). The American Psychological Association (n.d.) describes self-regulated learning as a continuous process of monitoring and controlling one's learning that involves metacognition, cognitive control, motivation, and strategic use of learning behaviors. Results from the study supported the three hypotheses that 1) students engaged in advising experienced increased levels of self-efficacy in relation to academic planning as a student learning outcome; 2) students demonstrated increased self-regulated learning-strategy levels; 3) and students' self-efficacy increased along with increasingly complex self-regulated learning-strategy levels (Erlich & Russ-Eft, 2013). Self-efficacy and self-regulated learning are noteworthy attributes that support students' academic performance.

Young-Jones et al. (2013) sought to better understand the relationship between academic advising and student grade point average (GPA) among undergraduate university students. Although differences emerged across demographically diverse students, overall results supported a positive relationship between academic advising and student success was demonstrated across interrelated factors (Young-Jones et al., 2013). For example, meeting with an advisor and advisor accountability were factors that supported student responsibility, self-efficacy, and study skills (Young-Jones et al., 2013). Perceived support was also higher among students who met with advising at least once per semester (Young-Jones et al., 2013), pointing to the importance of advising frequency.

Smith and Allen (2014) researched the associations between academic advising and student learning in relation to advising frequency and the manner in which students obtain most of their class requirement information. Among measured cognitive and affective outcomes related to advising frequency, scores were significantly higher among students who received advising in a formal setting versus those who did not, and for those who received more frequent advising versus those who with fewer advising meetings (Smith & Allen, 2014). Additionally, students who obtained most of their information about required classes from advisors scored significantly higher on measured learning outcomes compared to those who used advising tools such as websites and those who relied on knowledge from informal supporters such as friends (Smith & Allen, 2014).

Mu & Fosnacht (2019) investigated the relationship between advising and student learning outcomes by focusing on the relationship between academic advising and students' grades and self-perceived gains (Mu & Fosnacht, 2019). Overall findings from the study found that the frequency of advising meetings was positively correlated with students' self-reported gains and grades (Mu & Fosnacht, 2019), supporting similar research from Young-Jones et al. (2013) and Smith and Allen (2014). The role advising plays in improving student learning and performance is important across student groups, including those flagged as academically at-risk.

Research at the University of North Carolina at Greensboro (UNCG) introduced appreciative advising in a program for students placed on academic probation (Bloom et al., 2013; Kamphoff et al., 2007). Retention rates of students placed on academic probation improved by nearly 20 percent along with a significant GPA gain (Bloom et al., 2013; Kamphoff et al., 2007). A later study of appreciative advising within a first-year experience course found that the majority of the cohort had higher GPAs and retention rates than their non-cohort peers (Hutson, 2010). Fostering academic learning and performance is vital for community college advisors as many students aspire to transfer to four-year colleges and universities that do not offer the same open-door policies as two-year institutions.

Transfer

National transfer statistics indicate that student mobility is diverse, multifaceted, and growing (Shapiro et al., 2018). Four out of every five students entering community college aim to transfer and earn a bachelor's degree or higher (CCRC, 2021; Lazarowicz & McGill, 2022). For many students, beginning their postsecondary education at a community college is a more viable option because of tuition costs and proximity to home (CCRC, 2021). However, research shows that of the many students with intent to transfer, only a small percentage transfer and earn a bachelor's degree within 6 years (Bailey et al., 2015; CCRC, 2021; Kopko & Crosta, 2016; Lazarowicz & McGill, 2022; Packard & Jeffers, 2013; Shapiro et al., 2017).

Although community colleges tend to enroll more underrepresented students (Bailey, 2012, pp. 76-77; King, 1993, Shapiro et al., 2018), a closer look at transfer rates reveal disparities across socioeconomic status, gender, race and ethnicity, and age. Lower income students are less likely to transfer than their higher income counterparts (Shapiro et al., 2017). In relation to gender, men are less likely to transfer than women (Shapiro et al., 2017). In terms of race and ethnicity, Black and Latinx students are less likely to transfer to four-year institutions than White and Asian students (CCRC, 2021; Shapiro et al., 2018). Adult learners, categorized by being over the age of 24, are less likely to transfer than their younger counterparts (Shapiro et al., 2018).

A number of factors contribute to challenges with transfer from two-year to four-year institutions including politics and dissimilar academic cultures that create craters between community colleges and their four-year counterparts (Shapiro et al., 2017). Issues related to articulation agreements (Bailey, 2012, p. 210; Shapiro et al., 2017), disparities in students' academic preparedness (Bailey & Cho, 2010; Shapiro et al., 2017), the cost of attending a four-year institution (King, 1993), and loss of transfer credit resulting in additional courses required to complete a baccalaureate degree (Bailey, 2012, p. 210; King, 1993) are additional challenges. Another claim is that students who do transfer experience a phenomenon of GPA decline post-transfer called transfer shock (Hills, 1965). However, later research by Aulck and West (2017) has contradicted this idea, showing in their research that two-year institution transfer students perform as well as their freshmen entrant counterparts post-transfer.

Academic advisors have an important role in alleviating transfer challenges by helping students understand transfer options and determining their transfer goals as early as possible (CCRC, 2021; Hatch & Garcia, 2017; King, 1993; Lazarowicz & McGill, 2022; Packard & Jeffers, 2013). Community college students indicate that advising that connects general education requirements to major, degree, and career options is particularly important (Allen et al., 2013; Woods et al., 2017). Academic advisors also play a role in helping students identify admissions policies and deadlines, exploring financial aid options, considering factors such as the institution's location, and frame expectations for college post-transfer (King, 1993).

Packard and Jeffers (2013) added additional context to the role of advising in the transfer process by exploring community college students' experiences with advising. Their findings expanded upon a previous study that explored institutional delays with the transfer process where dissatisfactory advising experiences was cited among reasons for setbacks (Packard et al., 2012). Among findings from Packard and Jeffers (2013), over 50% of participants reported a negative advising experience that inhibited the transfer process wherein four themes emerged: a lack of knowledge, a lack of resourcefulness, lack of availability, and lack of demonstrated interest or connectedness (Packard & Jeffers, 2013). However, results also indicated that over 80% of participants reported a positive advising experience that assisted the transfer process wherein five themes emerged: receiving accurate knowledge, making resourceful referrals, providing emotional support, exposing students to new opportunities, and coaching toward completion of goals. These findings reinforce the importance of students receiving timely and accurate information from advising, the value of providing advisor training, and the positive role that collaboration between faculty and advising groups has in the transfer process (Packard & Jeffers, 2013). Helping students integrate into the academic and social networks of their college, successfully persist, and, for many students, transfer are all measures working toward another important goal: completion.

Completion

Community college stakeholders have a tendency to focus on college enrollment rather than completion (Goldrick-Rab, 2010) and data show the national completion rate has become stagnant (Bettinger et al., 2022; Causey et al., 2022). The open door policies of community colleges allow students to recurrently enter and exit with various goals but not always with clarity about how to accomplish them (Hatch & Garcia, 2017).

A look at national college data shows that the overall six-year completion rate among the fall 2016 cohort was just over 62% (Causey et al., 2022). Among community colleges, which are categorized as public two-year institutions that do not confer baccalaureate degrees (Juszkiewic, 2020), the six-year completion rate tipped slightly over 43% (Causey et al., 2021). Although completion rates grew for all reported racial and ethnic groups (Causey et al., 2022), it is important to note that minority and low-socioeconomic status students are less likely to graduate than their White and higher-socioeconomic status counterparts (Bettinger et al., 2022). The evidence here shows that while community colleges strive to enroll students, it is imperative to simultaneously prioritize supporting students through to completion. Ongoing support throughout the college experience is integral to professional academic advising.

In one study of college coaching, researchers found that students who received coaching via InsideTrack services had higher retention and completion rates than their non-coached counterparts (Bettinger & Baker, 2014). InsideTrack is a for-profit provider that partners with universities to provide college mentoring to students (Bettinger & Baker, 2014). The coaching services offered through this provider had positive lingering effects with higher persistence, retention, and graduation post-treatment (Bettinger & Baker, 2014).

Donaldson et al. (2016) explored the relationship between community college students and intrusive academic advising. The results of the study were mixed including negative perceptions about mandated advising, limited advisor availability, and a need for greater support at pivotal times such as the transition to college (Donaldson et al., 2016). However, findings also showed that mandated advising provided a means to overcome motivational barriers and engage in early degree planning (Donaldson et al., 2016). Many participants cited a better understanding of their degree plan and what courses they needed to complete it as a result of developing a pathway aimed at completion and/or university transfer (Donaldson et al., 2016). Students also reported greater confidence in planning future courses and seeking help outside of mandated advising (Donaldson et al., 2016).

Despite a number of challenges, research shows that academic advising plays an essential role in supporting student success and is valued by students more than other supports in their two-institutions (Cuseo, 2012; Lazarowicz & McGill, 2022). Advancing the success of students also means addressing non-academic challenges related to work, caretaking, financial aid, childcare, transportation and time spent commuting, motivation, mental and physical health, and time management (Darling, 2015; Rober, 2021), bringing the holistic approach to academic advising full circle. Practitioners attending to the varied needs of students are increasingly integrating technology tools to digitize advising services. Thus, evaluating virtualized academic advising in the wake of a global pandemic warrants a review of the role technology plays in this arena.

Digitization of Academic Advising

This section of the literature review highlights the digitization of academic advising through technology tools and strategies cited in the literature. While several technology tools and techniques are presented, few sources have explicitly investigated synchronous virtual advising within the digitization of community college academic advising and its potential impact on measures of student success such as persistence, retention, and completion. Several tools fall under the digitization umbrella that will be discussed in this section including:

- Expert advising systems: rule-based, fuzzy logic-based, recommender system-based, and chatbot-based systems
- Text messaging

- Institution websites
- Learning Management Systems
- Social media and text messaging
- Synchronous virtual technologies

The use of digital technology to facilitate online learning predates the COVID-19 pandemic and has become increasingly popular in higher education (Hachey et al., 2022b; Ranglund et al., 2017; Rovai, 2001; Murphy, 2020; Heidari et al., 2021). Cited benefits of online education include accessibility, flexibility, scalability, and cost effectiveness (Coussement et al., 2020; Hachey et al., 2022b; Toquero, 2020). However, student learning and outcomes in the online environment is somewhat inconclusive (Hachey et al., 2022b; Nguyen, 2015) as scholars have produced a mix of positive (Bernard et al., 2004; Nemetz et al., 2017; Ni, 2013) and negative (Atchley et al., 2013; Bettinger et al., 2017; Xu & Jaggars, 2011) implications that vary across student characteristics and demographics. Enhancing student engagement and outcomes in the online landscape extends beyond the virtual classroom to services including academic advising. As Nolan (2013) asserts, as online course and program offerings expand, so too must support resources. Technology has the ability to enhance advising processes and corresponding tasks (Assiri et al., 2020). The digitalization of academic advising has transpired in different contexts, much of which includes asynchronous and automated tools including advising expert systems, websites, phone calls, emails, and texting.

Expert Advising Systems

Expert systems are artificial intelligence agents that mimic expert human decision making (Kuhail et al., 2022; Papageorgiou, 2022; Saibene et al., 2021). When applied to advising, these systems can minimize information errors, bring advising services and personnel to scale, and reduce advising workloads (Assiri et al., 2020) in a cost and time efficient manner (Daswani et al., 2020; Engin et al., 2014). Expert systems used for academic advising can be organized into four categories: rule-based expert systems, fuzzy logic-based expert systems, recommender system-based expert systems, and chatbot-based systems (Kuhail et al., 2022).

Rule-based expert systems solve problems by using a set of if-then rules based on encoded human knowledge (Engin et al., 2014; Grosan & Abraham, 2011; Kuhail et al., 2022). As an example, Engin et al. (2014) developed a rule-based expert system that aimed to develop course schedules and provide scholarship recommendations to university students. A fuzzy expert system uses fuzzy logic in conjunction with expert system functions to establish rules and inferences about those rules (Aly et al., 2017; Kuhail et al., 2022). Aly et al. (2017) presented a fuzzy expert system via an Android phone application that provides recommendations about course registration based upon student inputs. Recommender systems are software tools and techniques that aid in the decision-making process by offering suggestions to users in the face of a potentially overwhelming number of alternatives (Ricci et al., 2011). Fong and Biuk-Aghai (2009) designed a recommender expert system that analyzes student data such as test scores to predict their chances of admission to various universities and provide recommendations based on that criteria (Fong & Biuk-Aghai, 2009). A chatbot is a conversational software application that engages users through text or voice conversations (Kuhail et al., 2022). Several additional studies have contributed to the literature about expert systems and their various applications to academic advising.

Abdelhamid and Alotaibi (2021) proposed a multi-agent smart academic advising system to alleviate the human advisor's workload. The framework consists of six agents–student, instructor, schedule, performance, administrator, and smart advisor–that work in tandem to automate the full academic advising process (Abdelhamid & Alotaibi, 2021). Additionally, six data repositories–study plan, semester plan, instructor workload, student marks, student profile, and instructor profile–support the operations of the advising agents (Abdelhamid & Alotaibi, 2021). When human support is needed, the advising system books an appointment where the student and human advisor can meet remotely through a recorded chat (Abdelhamid & Alotaibi, 2021).

Other studies have explored replicating elements of the advising process such as Page and Hunter (2017) who introduced an artificial intelligence text-based system to provide admitted college freshmen with outreach and support during the transition between high school and college. The system utilized university data to customize messaging to help students with incomplete tasks such as financial aid, submitting paperwork, and attending orientation (Page & Hunter, 2017).

Research that has focused on tasks such as course planning and registration include Bansal et al. (2003) that discussed a web-based support system for students and advisors to help with tasks that occur during degree planning and registration. Ho et al. (2018) focused on a chatbot tool that guides students through elective course selections. Loucif et al. (2020) proposed an academic advising framework and web-based system that factors course requirements in addition to students' ability levels for courses they can take in upcoming terms. In this model, a list of recommended courses is generated then ranked and prioritized in relation to difficulty level such that the easiest courses are paired with the most difficult to help students avoid taking all difficult courses simultaneously (Loucif et al., 2020). Kuhail et al. (2022) designed a chatbot advising system to respond to student inquiries about topics such as course selections, course assistance, and academic rules.

Additional models have been proposed to identify and assist with student risk factors. Mekni et al. (2020) proposed a customizable multi-institution chatbot system to enhance academic advising and counseling and identify student risk factors. Lim et al. (2021) discussed a chatbot system that uses a prediction model based on students' attendance and assessment scores to predict who may be in need of academic support. University students who are predicted to have poor academic performance received text message reminders related to topics such as class attendance (Lim et al., 2021). Text messaging has been used in other strategic ways to support advising functions.

Text Messaging

Text messaging is a popular communication tool that has been adopted in higher education to connect with students (Taylor & Serna, 2019). It is a communication tool that can operate as a form of integration (Otto, 2022) and enhance advisors' ability to connect with students and help them navigate college (Tippetts et al., 2021). However, several studies of text messaging used as an advising tool have provided mixed results.

Avery et al. (2020) conducted two complementary, large-scale studies of text-message college guidance between advisors and high school juniors and seniors to determine if these strategies help students navigate the college admissions process. Overall results from the national level data showed null impacts from the interventions suggesting a need for improved collaboration, advising caseloads, interactive technologies (Avery et al., 2020). Another large-scale study used two-way text-messaging with college advising to increase college enrollment among students attending U.S. high schools that presented high percentages of low-income students and low college attendance rates (Arnold et al., 2020). Overall feedback from participants were positive and pointed to helping students remain on track through reminders about tasks, deadlines, and solving problems (Arnold et al., 2020). Despite the positive feedback, quantitative analysis revealed no significant impact on college enrollment outcomes (Arnold et al., 2020). A third study by Bettinger et al. (2022) collaborated with an array of two- and four-year institutions to develop a large-scale intervention called Nudges to the Finish Line (N2FL) aimed at increasing completion rates among enrolled degree-seeking students near credential completion. Results from the study found that text-based nudges are not effective at addressing barriers to completion among near-completer students suggesting the need for higher-touch interventions (Bettinger et al., 2022). Despite these concerning results, other studies have shown a more optimistic outlook on text messaging.

Castleman and Page (2016) researched the impact of personalized text messaging developed to encourage college freshmen to refile their financial aid applications in order to maintain their financial support for their sophomore year. Results from the study revealed a large and positive impact on college persistence among first-year community college students, but no overall impact on persistence among first-year students at four-year institutions (Castleman & Page, 2016). In a later study, Castleman and Meyer (2020) researched if an interactive text messaging campaign sharing college and financial aid information would impact academic outcomes and persistence among lower-income first-year college students. Suggestive evidence indicated that students who received text messages attempted and completed more credits and were more likely to persist in their first year than their non-treatment counterparts (Castleman & Meyer, 2020). In another study, Otto (2022) investigated the connection between advising interactions via text and students' intent to persist. Undergraduate students across three Midwestern four-year institutions were surveyed (Otto, 2022). Their study found that student-advisor text interactions positively influenced students' intentions to persist (Otto, 2022). In addition to measuring student outcomes, research has provided valuable insights to the text messaging preferences of college students.

In a qualitative study, Taylor and Serna (2020) researched community college students' preferences for receiving text messages from their institution. Findings from their study revealed five themes: students should be prepared for what to expect from text messaging services before they start; the first text message is important for generating student participation; students want information that is relevant to them; timing and frequency of text messages impact student engagement; and students prefer text message composition that reflects professional communication rather than slang or abbreviations (Taylor & Serna, 2020).

In a similar study, Taylor and Serna (2019) researched first-time-in-college community college students' text message preferences at a large multi-campus institution in Texas. They found that students preferred text messaging that omits slang, with a slight preference also toward omitting emojis (Taylor & Serna, 2019). Students also preferred text messaging that uses exclamation marks, hyperlinks, and includes criteria such as the recipient's name, sender's name, and institution name (Taylor & Serna, 2019).

Huff Jr. et al. (2019) assessed the usability of a mentoring chatbot for African American undergraduate and graduate computing students by comparing two mobile interfaces, text messaging and Twitter, against a web-based embodied conversational agent (ECA). The researchers found that mobile interfaces, in this case text messaging and Twitter, were identified as more usable than the web-based ECA; and text messaging yielded higher usability scores than Twitter (Huff Jr. et al., 2019). Similar to findings by Taylor and Serna (2020), recommendations for improvement included a need to provide instructions for usage (Huff Jr. et al., 2019). Results diverged from Taylor and Serna (2020) in that participant feedback advocated for the chatbot to accept abbreviations (Huff Jr. et al., 2019). Taken together, it may be reasoned that students may prefer the ability to send abbreviated messages but receive a more professional tone in response. Research about text messaging amid COVID-19 is also emerging.

A centralized advising center at a large, public university utilized a FERPA-compliant text messaging platform designed for higher education with the belief that group texts may help relay information to students, particularly when academic advisors are managing large caseloads (Tippetts et al., 2021). Two-way messaging between students and academic advisors functioned via automated replies for frequently asked questions and personalized replies when automation was not at least 98% confident in providing an automated response (Tippetts et al., 2021). Data collected during this study overlapped with the onset of the COVID-19 pandemic which created unusual communication challenges (Tippetts et al., 2021). The text messaging platform allowed advisors to communicate important and timely information to students while also providing students access to advisors in the absence of on-campus office hours as a result of the pandemic (Tippetts et al., 2021). Results from the study may have been influenced by the pandemic, but nevertheless found that students were receptive to receiving text messages from advisors (Tippetts et al., 2021). In addition to text messaging, research has also explored the role of college websites as a way to offer low-cost, efficient opportunities to share essential information about institutions and programs with a wide audience of learners (Margolin et al., 2012).

Institution Websites

Bailey et al. (2015) discusses how students may turn to college websites to provide pertinent information. Ideally, websites should include detailed program information that respond to students' frequently asked questions, offer insight on opportunities for employment, and provide contact information for someone who can respond to additional questions (Bailey et al., 2015). Margolin et al. (2012) explored whether community college websites are useful for answering frequent questions about course selections and completion of occupational degree programs. Issues of knowledge, understanding, and information transparency were among reasons misunderstanding website information can have severe consequences such as miscalculating time to completion (Margolin et al., 2012). In a later article, Daswani et al. (2020) introduced a chatbot system called CollegeBot, designed to help visitors of a university's website locate information related to the inquiries (Daswani et al., 2020). Mu and Fosnacht (2019) took another approach, describing a form of electronic advising where website information is used to identify student's academic progress, obtain personalized checklists denoting met academic requirements, and sharing detailed information on course offerings. Other research has explored the role of learning management systems in the context of delivering academic advising.

Learning Management Systems

Learning management systems, such as Blackboard and Moodle, are software applications that automate the administration, tracking, and reporting of learning content (Subramanian et al., 2014). The Community College of Vermont investigated whether online advising would be a desired service among students by enrolling a random sample of participants in a Moodle course that provided weekly announcements, answers to questions, and student check-ins (Nolan, 2013). Student survey responses indicated that most students knew how to access the Moodle class, but a smaller portion indicated a lack of knowledge about how to access the course. Responses also pointed to a desire for more information about resources such as study tips, time management, and advising (Nolan, 2013). The advising cohort that participated in this study had a slightly higher retention rate than the overall online student population (Nolan, 2013).

As the literature shows, numerous institutions have digitized aspects of academic advising using a variety of technology tools. Thompson and Prieto (2013) sought to better understand if virtualized advising provides comparable quality to that of face-to-face advising. They found that although virtualized advising may offer easy access to resources for motivated students, many receive encouragement and motivation through mandated advising (Thompson & Prieto, 2013). Their findings issue a cautionary tale that virtualizing all advising services may be detrimental to students, particularly those who are unmotivated as no amount of machine programming can replace the authenticity of a person (Thompson & Prieto, 2013). Besides institutional websites and systems, student outreach strategies have employed social media as an information and engagement tool.

Social Media and Email

Research points toward social media as an additional outlet for distance learners to access advising support and information about their institutions (Argüello & Méndez, 2019). Social media and networking sites include platforms such as Facebook, Twitter, and Instagram (Argüello & Méndez, 2019, Junco et al., 2016; Wang & Houdyshell, 2021). Despite being cited as a way to connect students to their institution, including advising (Argüello & Méndez, 2019), no research has been uncovered in this literature review specifically about social media in relation to community college advising. Similarly, despite email communication operating as a long-standing method of communication in higher education (Junco et al., 2016), no research in this literature review has been identified that relates directly to email communication and advising service modalities. However, there is a growing body of research that provides insight on synchronous virtual engagement in an attempt to bridge the gap between technology, the virtual landscape, and human contact.

Synchronous Advising Technologies

A number of technology tools have advanced the digitization of academic advising predating the COVID-19 pandemic. However, much of the identified literature explores asynchronous advising tools that fall short in practice when they are unable to be customized to meet students' unique needs; when they add to the advising workload rather than ease it; and when advisors and students alike lack the understanding to effectively interact with these tools (Jones, 2019). Expert advising technologies such as those that employ predictive analytics also pose ethical concerns that could unfairly direct advisors toward or away from students based on how they are labeled as more or less at risk (Jones, 2019). Relatively few studies have been identified in this review of the literature that explicitly focus on a synchronous virtual advising service modality in a community college environment. This section will address what information and research has been identified in the literature to support synchronized virtual engagement.

Synchronous Virtual Learning.

As online degree programs become an increasingly popular route to a higher education degree, challenges to serve busy, working adults while simultaneously ensuring connectedness and success through completion are ever important (Simpson, 2018). Web-conferencing platforms such as Zoom, Adobe Connect, Blackboard Collaborate, MS Teams, Google Meets, and Canvas Conference allow educators to engage in synchronous communication via audio, video, text, chat, shared screens, and breakout rooms (Wang & Houdyshell, 2021). A number of studies have illuminated implications for virtual synchronous engagement from the learning and classroom engagement perspective.

Much of what the research on synchronous virtual learning gleans stems from the student perspective. For example, Stewart et al. (2011) researched graduate students engaged in hybrid learning where classes sometimes met face-to-face and other times used Google Video chat to engage in the virtual space. The synchronous technology used allowed distance learners to receive real-time attention from their instructor in a dynamic setup that increased satisfaction in their course (Stewart et al., 2011). In another study of graduate students, Romero-Hall and Vicentini (2017) investigated graduate distance learners participating in hybrid-synchronous instruction. Results showed that hybrid synchronous instruction helped improve students' study habits, but challenges related to interactions, relationships, and communication exchanges also occurred (Romero-Hall & Vicentini, 2017). Lowenthal and Moore (2020) implemented an exploratory study to investigate students' perceptions of Flipgrid as a video-based discussion tool in asynchronous online courses. Overall, students liked Flipgrip, noting they found it easy to use and a tool to help improve social presence (Lowenthal & Moore, 2020).

In a later study, Lowenthal et al. (2021) investigated faculty perceptions of using synchronous video-based communication technology. Their findings noted participants reported high satisfaction with synchronous video-based technology for convenience and flexibility purposes, but it also presented challenges related to overuse, lack of engagement and distraction, technical issues and learning curves (Lowenthal et al., 2021). In relation to learning curves, Heiser et al. (2013) investigated learner training to prepare for language classes in the UK where online synchronous conferencing was used. Findings showed that training supported students' understanding of how the classes operated and boosted their confidence to actively participate. Although the research on virtual learning provides valuable insights, it does not convey the impact of synchronous virtual engagement from a professional advising perspective nor does it speak to the unique makeup of community colleges, specifically within the NCCCS. Exploring existing research on synchronous virtual advising is imperative to conceptualize how this advising modality may support engagement between advisors and students within the NCCCS in a pandemic era.

Synchronous Virtual Advising.

In an age of technology and distance learning, it may appear futile to hire and train staff to advise online students, but it is a faulty assumption that these students will be proactive in seeking information and support (Simpson, 2018). Additionally, face-to-face advising provides the integral ingredient of human contact that allows people to respond to visual and verbal cues (Gaines, 2014) not replicated in an asynchronous format. Therefore, it is imperative for college leaders to invest in advising methods that facilitate interpersonal relationships and student satisfaction (Simpson, 2018; Vianden & Barlow, 2015). To achieve this, practitioners can utilize a number of platforms to proactively engage distance learners including Skype, Zoom, Google Meets, Microsoft Teams, or webinar-style platforms (Argüello & Méndez, 2019; Moosa, 2021; Varney, 2013; Wang et al., 2022). Some of these options, such as Zoom, have rapidly enhanced their structure to meet increasing demand including password protection and enhanced registration and background functionality (Liguori et al., 2021). By adopting virtual advising, practitioners may be able to better engage students, such as those with competing work work schedules (Tippetts et al., 2020). The body of literature discussing synchronous virtual advising is growing but limited.

Identified literature offers insights such as suggested synchronous virtual meeting platforms for use and their ability to replicate the advantages of in-person advising through an online landscape. For example, Jones and Hansen (2014) discuss Blackboard Collaborate as a synchronous tool that can be used to engage students in real time. This type of web-based platform provides users with engaging in real-time advising with video, audio, phone conferencing, chat, and screen sharing features (Jones & Hansen, 2014). Live virtual advising sessions connect to the best practices of intrusive advising while also providing flexibility and access for distance education students that are more likely to be working and taking care of family (Jones & Hansen, 2014). In another article, Argüello and Méndez (2019) discuss video conferencing tools such as GoToMeeting, Skype, and Zoom to receive live support services that replicate in-person advising sessions. Use of these platforms allow distance learners to feel connected and engaged as well as have the option to utilize features such as recording to save sessions for later reference (Argüello & Méndez, 2019). Gaines (2014) also discusses the benefits of replicating face-to-face advising sessions through virtual tools such as Skype and FaceTime, noting that the prevalence and accessibility of these tools to anyone with internet access has the power to shift traditional thoughts about the advising relationship.

In a pre-pandemic study, students enrolled in two or more online courses at a community college were provided the opportunity to work with an advisor online via chat, email, phone, or virtual WebEx sessions (Madi-McCarthy, 2018). Findings from their study revealed that students who used synchronous virtual advising services via WebEx reported higher levels of satisfaction with their advising experience (Madi-McCarthy, 2018). Results also showed a significant difference in the success rates of the researched student sample, favoring those who used synchronous virtual advising (Madi-McCarthy, 2018). Additional literature has emerged about synchronous virtual advising since the onset of the COVID-19 global pandemic.

In an international case study, Moosa (2021) investigated advisors' perceptions of their responsibilities during the COVID-19 pandemic. Advisors reported having to adjust rapidly alongside their university colleagues to switch from primarily face-to-face to online programming (Moosa, 2021). Multiple modes of communication were utilized to connect with students individually and in group sessions during the pandemic including emails, Microsoft Teams, WhatsApp, Zoom, Skype, and telephone calls (Moosa, 2021). Challenges with virtual advising emerged including ethical issues with group advising; an inability to read body language and reactions without video functionality; a learning curve with using new technology tools; helping students transition to online learning; a sense of helplessness with external obstacles such as internet connectivity; and financial costs when using platforms such as WhatsApp (Moosa, 2021). However, some participant feedback pointed toward a broader reach of students and a desire to maintain virtual advising in conjunction with face-to-face services moving forward (Moosa, 2021).

Wang and Houdyshell (2021) conducted a quantitative study of undergraduate students' knowledge, advising experiences, and perceptions related to remote academic advising (RAA) paying close attention to whether there are any significant differences based upon students' demographic information. Their study found no significant differences in students' knowledge or experiences with RAA (Wang & Houdyshell, 2021). However, some students reported a lack of knowledge and resources needed for RAA (Wang & Houdyshell, 2021). Additional findings noted that older students preferred RAA more so than in-person advising (Wang & Houdyshell, 2021). Significant differences emerged between gender groups with female participants leaning more in favor of RAA and male participants favoring in-person advising (Wang & Houdyshell, 2021).

Wang et al. (2022) explored the knowledge and experiences of students and academic advisors at a state university using synchronous communication technology during the pandemic. Overall, students and advisors both reported positive perceptions toward synchronous communication technology for remote advising, and reported having knowledge of synchronous communication technology and its use for remote academic advising (Wang et al., 2022). However, discrepancies between students and advisors emerged when asked if they had the technology resources needed to participate in remote academic advising (Wang et al., 2022). Student feedback highlighted participation barriers including a lack of technology resources and sufficient knowledge related to remote advising (Wang et al., 2022).

In an additional article, Hu (2020) offers several suggestions for practitioners to integrate virtual technology into academic advising such as ensuring that historically marginalized students have equal access to virtual advising components. To do this, institutions can utilize emergency grants, issue laptop loans, and optimize campus parking lots within range of internet access (Hu, 2020). Institutions can also establish agreements with internet providers to offer free or reduced rate services for low-income students; proactively inform students about virtual advising options and resources; and utilize inclusive tools such as screen readers and video captions (Hu, 2020). Providing virtual resources such as program maps can aid students between advising sessions (Hu, 2020). Alternative options to effectively offer budget-friendly advising services to meet the diverse needs of community college students is imperative, and technology-mediated advising is uniquely positioned to extend the reach of advising both in crisis and moving into the future (Hu, 2020).

Students prefer easy-to-access and personalized information on demand, thus beckoning community colleges to provide students intrusive academic advising from a distance (Jones & Hansen, 2014). To provide high-quality yet budget-friendly virtual advising services to students in an era being redefined by a global pandemic, it is critical that formal evaluation processes are utilized to inform practitioners and best practices. The following section discusses observations of the literature in relation to evaluation and assessment of academic advising, and introduces an evaluation model that can shed light on the utility of virtual advising services at a North Carolina community college.

Evaluating Advising Programs

Much of the research identified for this study evaluates academic advising in some manner. Methods of evaluation include both qualitative and quantitative approaches to gauge aspects of academic advising such as students' perceptions of academic advising (Cuseo, 2012; Lazarowicz & McGill, 2022; Packard et al., 2012; Packard & Jeffers, 2013; Vianden & Barlow, 2015) and the impact of advising on measures of student success such as persistence and retention (Allen et al., 2008; Bahr, 2008; Lotkowski et al., 2004; Tippetts et al., 2020; Vianden & Barlow, 2015); academic and social integration (CCCSE, 2018; Hatch & Garcia, 2017; King, 1993; Zhang, 2016; Zhang, 2018); student learning and academic performance (Erlich & Russ-Eft, 2013; Mu & Fosnacht, 2019; Smith & Allen, 2014; Young-Jones et al., 2013); transfer (Aulck & West, 2017; Bailey, 2012; Bailey & Cho, 2010; Hill 1965; Shapiro et al., 2017); and completion (Bettinger & Baker, 2014; Donaldson et al., 2016). Although meaningful, these insights vary across factors such as institution type and advising organizational structure, and don't offer a comprehensive evaluation process to inform practitioners about the utility of service options to inform best practices and service enhancements. Evaluating advising services and programs is key to ensuring students are provided with high-quality and impactful support (Springer & Tyran, 2022).

Utilization Focused Evaluation

Michael Patton is the founder and CEO of the Utilization-Focused Evaluation organization (Utilization-Focused Evaluation, n.d.). He has authored several books on evaluation (Utilization-Focused Evaluation, n.d.) and is cited in numerous literary sources (Adu, 2019; Bernhardt, 2013; Brix et al., 2020; Chenail, 2011; Chevalier, J. & Buckles, D., 2019; Issel et al., 2021; Labin et al., 2012; Markiewicz & Patrick, 2015; Van Melle et al., 2019). In his book, *Essentials of Utilization-Focused Evaluation*, Patton (2012) asserts that many good ideas work in practice and, at the same time, many don't. The job of evaluation is to distinguish those ideas that work in practice from those that don't (Patton, 2012). Foundationally, evaluations help determine the merit, importance, or value of something (Patton, 2012). The utilization-focused evaluation approach recognizes that no evaluation can be value-free, so this method focuses on working with primary intended users whose values influence the evaluation and who also bear the responsibility of enacting recommendations from evaluation findings (Patton, 2012). This approach to evaluation is personal and situational, wherein Patton offers a "menu of possibilities" to guide users (2012, p. 4). This evaluation framework will guide the study of virtual advising services at a North Carolina community college and be further detailed in Chapter 3.

Summary

A plethora of research about academic advising has informed this professional field within community college and other higher education institutions. It is well documented that academic advising provides a range of support to students to foster holistic growth and success. However, the COVID-19 global pandemic caused unprecedented disruptions to all aspects of everyday life, including higher education. A swift conversion to temporary online operations ensued bringing forth a variety of challenges for practitioners and students alike. As a new normal continues to unfold in the wake of the pandemic, services such as academic advising are increasingly integrating technology to digitize services and reach students from afar.

Despite these advances, little is known about synchronous virtual advising modalities to connect with students. While existing literature on academic advising offers insight to evaluative efforts, their scope is limited to measures of student satisfaction or measures of student success. Missing from this exhaustive review of the literature is an approach to implement a comprehensive evaluation to identify the utility of synchronous virtual advising services to community college students in a pandemic era. As community colleges and other institutions of higher education look toward the future, it is imperative to consider the role of technology to connect students to vital support services such as advising.

METHODOLOGY

This chapter provides details about the methodology that guided this study. This study relied upon a utilization-focused evaluation (U-FE) approach detailed by Patton (2012). Utilization-focused evaluations build upon decades of research to provide a thorough and customizable approach to the evaluation process (Patton, 2012). Utilization-focused evaluations provide a form of reality testing to gauge if a service is meeting intended use expectations by the intended users (Patton, 2012). This approach was suitable for assessing virtual academic advising services to determine if the intended use of this advising modality was working in practice for its intended users, particularly in a pandemic era increasingly reliant on technology to maintain meaningful connections. Research questions, which guided the evaluation for this study, investigated the virtual academic advising practices at a North Carolina community college. One overarching research question guided this study: *What are the recommendations to attain a streamlined organizational structure for evaluating virtual academic advising services at one North Carolina community college based upon a utilization-focused evaluation?* Through the utilization-focused evaluation process, a subset of three questions informed the findings.

1. What are the motivations towards increasing the virtual presence of professional advising at one North Carolina community college?
2. What are the perceived challenges and opportunities experienced by professional advisors at a North Carolina Community College when providing virtual services?
3. What are the perceived best practices by professional advisors at a North Carolina Community College when providing virtual advising services to community college students?

This chapter incorporates details relevant to the setting, participants, sampling method, data collection process, data analysis, trustworthiness and credibility, and ethical considerations. In addition, this chapter will define the steps taken to conduct a utilization-focused evaluation, which frames the methodology for this study.

Setting

The site selected for this evaluation included a mid-sized urban community college located in the Southeastern United States. This multi-campus institution serves approximately 18,000 students who enroll as continuing education, curriculum, or non-degree seeking students (redacted). Through a split advising model, students navigate through the college's advising center staffed with full-time professional advisors and transition to program faculty advisors after their first semester of enrollment. Dually enrolled high school students receive advising through an additional team of staff dedicated to this population. The advising center has historically offered in-person advising as the primary service option but was prompted to expand to virtual services following the onset of the COVID-19 pandemic. As the site improves data collection processes and explores ways to optimize virtual advising service options, the topic of service utilization came forward. It was important for administrative leaders at the college, as well as the advising team, to rely on data to better understand what services yielded to be most beneficial to students which led this study to commit to a research design that would generate a deeper understanding of virtual advising practices and how the services were utilized.

Participants and Sampling Method

This study relied on participants who either delivered or received virtual advising services. This study was designed to collect primary data from a number of advising stakeholders and administrative personnel involved in the advising decision making process including: 11 advising staff and 3 college administrators, which is consistent with Patton's (2012) recommendation number nine to engage less than fifteen primary users for a manageable process of collecting evaluation data. Secondary data to support the evaluation was also collected from a sample of 111 advising personnel and of those, 38% (*n*=42) provided survey feedback; and a sample of 4,120 students and of those, 5.8% (*n* = 241) provided survey responses.

Purposive sampling was the sampling method relied upon for this evaluation due to the fact that this study collected qualitative data. Purposive sampling provided a sampling technique specific to the goals of this study and allowed specific individuals to be included in the population due to the role they played with delivering or receiving advising services. Purposive sampling was a way to designate a sampling procedure that was connected to the studies' aims and created space for the unique views and experiences of key stakeholders (Mason, 2002; Robinson, 2014; Trost, 1986).

Population

Refining the details of the 17-step process in utilization-focused evaluation requires input and agreement from the primary intended users, also referred to in this study as the primary stakeholders, of the evaluation (Patton, 2012). Based on these criteria and guidance from advising leadership at the research site, the target population for this study included seven full-time professional advisors, an assistant dean that oversees a transfer center and is actively involved in advising functions, the director of advising, the dean of student services, and the vice president of student services. As these stakeholders have a vested interest and power to utilize evaluation outcomes to inform and enhance their virtual advising practices, they were the most appropriate target population to engage. Furthermore, the identified advising leadership played a pivotal role as gatekeepers of advising activities and functions.

In addition to the identified primary stakeholders (n = 11), survey feedback was also provided by other site personnel with advising functions in their job role (n=33) as well as students (n=241). Additional site personnel included faculty program advisors (n=31) and college liaisons (n=3). Their feedback revealed valuable insights about the perceived utility, value, and quality of virtual advising services at the identified site.

Trustworthiness and Credibility

This study considered ethical guidelines offered by both the North Carolina State University Office of Institutional Research and the site where the evaluation was conducted. All recommended protocols were followed, and informed consent was thoughtfully carried out. Measures were taken to protect and maintain the confidentiality of all participants as well as the participating site.

Collected data and related information protected each participant's identity by removing identifiable information such as names, student identification numbers, addresses, and contact information. Preliminary reports were shared with primary stakeholders, namely the seven full-time professional advisors, the assistant dean that oversees the transfer center and is actively involved in advising functions, the director of advising, the dean of student services, and the vice president, chief of student services.

IRB Approval

Although IRB approval from NC State was not required (Appendix A), the researcher for this study followed the IRB Lifecycle and requirements for North Carolina State University

(NCSU, n.d.). The researcher accounted for aspects of the study integral to IRB documentation and approval throughout the data collection and analysis process, including the identification of target populations, detailing methodology, inclusion of consent forms, and data collection tools and storage (NCSU, n.d.). The researcher also complied with institutional training requirements and completed them prior to collecting data. The researcher also complied with IRB processes established at the research site.

IRB approval at the research site followed a two-part process for approval. Per the site's policy, all dissertation research must go through their IRB process (redacted). However, given the nature of a utilization-focused evaluation, it was not possible to provide established data collection methods without the input of primary stakeholders. To clarify an appropriate plan of action, the evaluator contacted the site's IRB Committee Chair via email explaining the proposed evaluation topic, approach and asked for guidance on the appropriate next steps. The IRB Committee Chair granted approval to proceed with engaging identified primary stakeholders to begin the evaluation process up to the point of data collection (Appendix B). Once data collection methods were agreed upon, the evaluator returned to the IRB process and submitted a formal application with the necessary information required. Once IRB approval was granted (Appendix C), the evaluator proceeded with the subsequent evaluation steps.

Informed Consent

The evaluator coordinated with advising leadership at the research site to obtain a verbal participant informed consent at the onset of the evaluation. Participants for this study were provided with an informed consent form included in workshop activity booklets that detailed key information about the purpose, participant eligibility, benefits and risks of participating, data collection, and contact information for questions or withdrawal requests (Appendix D).

Data Collection

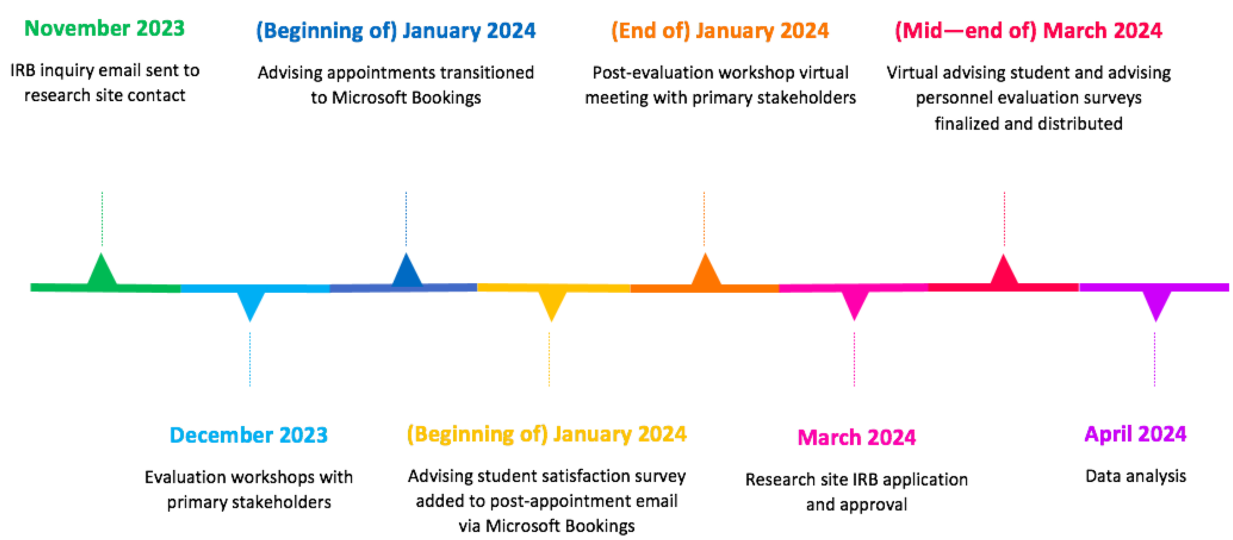
A number of resources allowed for data collection to take place from December 2023 through March 2024. The following section will provide a timeline of events to explain the overall evaluation process, followed by a detailed review of data collection methods.

Data Collection Timeline

Figure 1 provides a timeline which gives an overview of the types of data that was collected and when each component of that collection took place.

Figure 1

Data Collection Timeline



Note. Figure 1 provides a timeline of how the data collection process took place.

After consulting the research site's IRB office for appropriate approval steps, two evaluation workshops were conducted during December 2023 to introduce the evaluation to primary stakeholders, gather baseline data, and establish an agreed upon plan for the evaluation to unfold. At the beginning of January 2024, two key events helped generate additional data for the evaluation. The first was transitioning the advising center's appointment scheduling to Microsoft Bookings. The second was reviving a student satisfaction survey routed via email to students who scheduled an appointment through Bookings. At the close of January 2024, a virtual post-evaluation meeting was held via Microsoft Teams to regroup all of the primary stakeholders, combine their feedback from the earlier workshops, and finalize the overall purpose and data collection methods for the evaluation. In March 2024, a formal application was submitted to the research site's IRB office and approval was granted to proceed with data collection. Survey questions drafted during the January virtual meeting were finalized and disseminated in late March through collaboration with the director of advising and director of the institutional research office. Data analysis was conducted during April 2024 with the intent to develop a report to share with stakeholders during a later summer advising retreat.

Data Collection Methods

Data collection relied upon appointment scheduling choices of students via Microsoft Bookings; sign-in submissions to the advising center via Microsoft Forms; student satisfaction survey responses; primary stakeholder insights collected through the evaluation workshops and virtual meeting; and evaluation surveys distributed to students and employees asking about their perceptions and experiences with virtual advising. Figure 2 provides a list of the data collection methods, their purpose, and data collection timeframe informing the evaluation.

Figure 2

Data Collection Methods

Advising Center Emails	Purpose: Quantify the number of visitors to the advising center for unscheduled walk-in advising assistance to measure walk-in utilization data. Data Collection Timeframe: December 2023-April 2024
Microsoft Forms Advising Center Check-Ins	Purpose: Quantify the number of email responses from the advising center email on a monthly basis. to capture email utilization. Data Collection Timeframe: December 2023-April 2024
Microsoft Bookings Appointments	Purpose: Export appointment utilization data for each professional advisor and analyze on group basis. Data Collection Timeframe: January 2024-April 2024
Advising Center Student Satisfaction Survey	Purpose: Collect experiential and satisfction survey feedback from advising center visitors, particularly for question about advising service preferences. Data Collection Timeframe: January 2024- April 2024
Evaluation Workshop Activity Packet Responses	Purpose: Collect confidential qualitative data from primary stakeholders to gather baseline advising data and historical knowledge as well as stakeholder perceptions and goals of evaluation. Data Collection Timeframe: December 2023
Post-Eval Workshops Virtual Word Document	Purpose: Collect confidential qualitative data from primary stakeholders to determine evaluation learning objectives and establish data collection methods. Data Collection Timeframe: January 2024.
Student Virtual Advising Evaluation Survey	Purpose: Collect qualitative student feedback about their experiences and preferences with advising, particularly as it relates to virtual advising. Data Collection Timeframe: March 2024
Employee Virtual Advising Evaluation Survey	Purpose: Collect qualitative advising personnel feedback about their experiences and preferences with advising, particularly as it relates to virtual advising. Data Collection Timeframe: March 2024

Note. Summary of data collection methods with inclusion of data purpose and timeframe of collection are shown.

This study relied upon a mixed methods approach to analyze data. Evaluation research is often supported with both qualitative and quantitative data to inform the comprehensive process which generates factual findings and recommendations for stakeholders (Patton, 2012). A key component of the qualitative data analysis was that the researcher was considered a research instrument and conducted the workshop discussion to collect data and then analyzed the collection of responses in both the workshop and surveys developed (Creswell & Creswell, 2018; Merriam, 1998; Merriam & Tisdell, 2016). Analysis occurred using inductive and deductive methods where coding to identify themes was conducted (Creswell & Creswell, 2018; Patton, 2002; Saldaña, 2016).

The advising center email account is managed by advising leadership and professional advisors. Emails are routed to folders or deleted depending upon their content. For example, spam or phishing emails may be reported and deleted from the inbox. Emails received from students or other parties that are replied to by a team member are then moved into a folder designated for email responses within a specific year (i.e., Email Replies 2024). The director of advising used the filtering features of Microsoft Outlook to view cataloged email responses within a certain timeframe and then temporarily copied them into a separate folder to quantify the number of replies from month to month.

Microsoft Forms submissions to the advising center revealed the quantity of visitors checking in to the advising office without a scheduled appointment. To capture this information, the data was filtered to capture the number of sign-in submissions on a monthly basis and controlled for sign-in submissions where students indicated that they had a scheduled appointment. Duplicate appointment, email, or sign-in submissions were not excluded as students sometimes sought advising assistance repeatedly, especially given the institutional practice of advising restrictions mandating check-ins for course planning and registration every fall and spring.

Microsoft Bookings appointment scheduling pages were developed by the director of advising for each full-time professional advisor in the advising center. A primary purpose of this decision was to transition advising appointments into an existing and cost-efficient institutional resource where data could be collected and exported. Through informal conversations with the professional advisors to gauge their preferences, the director of advising established overall consistent advising appointment parameters. These parameters included how long appointments were, and how soon or far in advance a student could schedule an appointment, whether in-person or virtual. Virtual appointments generated a Microsoft Teams link that was automatically sent with an appointment confirmation email. The links to each team member's Bookings page was added to the advising center's web page alongside each advisor's name and alphabetical assignment according to students' last name.

After establishing each team member's Bookings page, the director of advising used the data export feature of Bookings to compile appointment scheduling information from each professional advisor on a monthly basis. After individual advisor data was recorded, it was then combined to reflect group metrics. Bookings data revealed the appointment scheduling choices of students in relation to virtual, phone, in-person, and campus location when scheduling in-person.

The advising center's student satisfaction survey was drafted by the director of advising and dean of student services and then submitted to the institutional research office to be formatted through a shareable SurveyMonkey link. The survey link was added to automated post-appointment emails sent after students' scheduled appointments via Microsoft Bookings. The director of advising accessed the survey results in a spreadsheet format upon request to the institutional research office. With respect to this evaluation, particular emphasis was placed on one question that asked students about their preferred meeting option with the advising center.

The evaluation workshops engaged primary stakeholders in a variety of activities organized via activity packets that guided participants through introductory concepts about evaluation and U-FE before gathering their knowledge of advising at the research site (Appendix D). The activity packets moved primary stakeholders through a review of professional evaluation standards and engaged them in reflection and identification of evaluation purposes and goals. The qualitative data collected through these activities was compiled and analyzed through a basic inductive analysis (Patton, 2002) using Excel to organize and code patterns that elicited thematic observations.

The evaluation workshop activities bridged into a follow-up virtual meeting where primary stakeholders were able to see an early report summarizing their selected primary evaluation purposes and professional evaluation standards emphasized by the group as essential for the evaluation process. A shared Word document was developed and shared with the primary stakeholders to allow simultaneous interaction with two activities that tasked participants with establishing their own set of evaluation questions and data collection methods to seek answers to those questions. Participants were able to interact in the document by choosing different color fonts to differentiate feedback across the group while still maintaining confidentiality in their input. The shared document was stored through an institutional OneDrive account.

The primary stakeholders identified surveys as a practical data collection method and developed two survey question lists, with one survey targeting student feedback and the other targeting advising personnel feedback. The finalized survey questions were shared with students and advisors through the assistance of the institutional research office. Survey results were exported to Excel and analyzed using both inductive and deductive methods, which Patton (2002) describes as common in practice. Deductive analysis was used for survey items that had predetermined response choices whereas an inductive approach was used for open-ended survey items in order to identify patterns and themes.

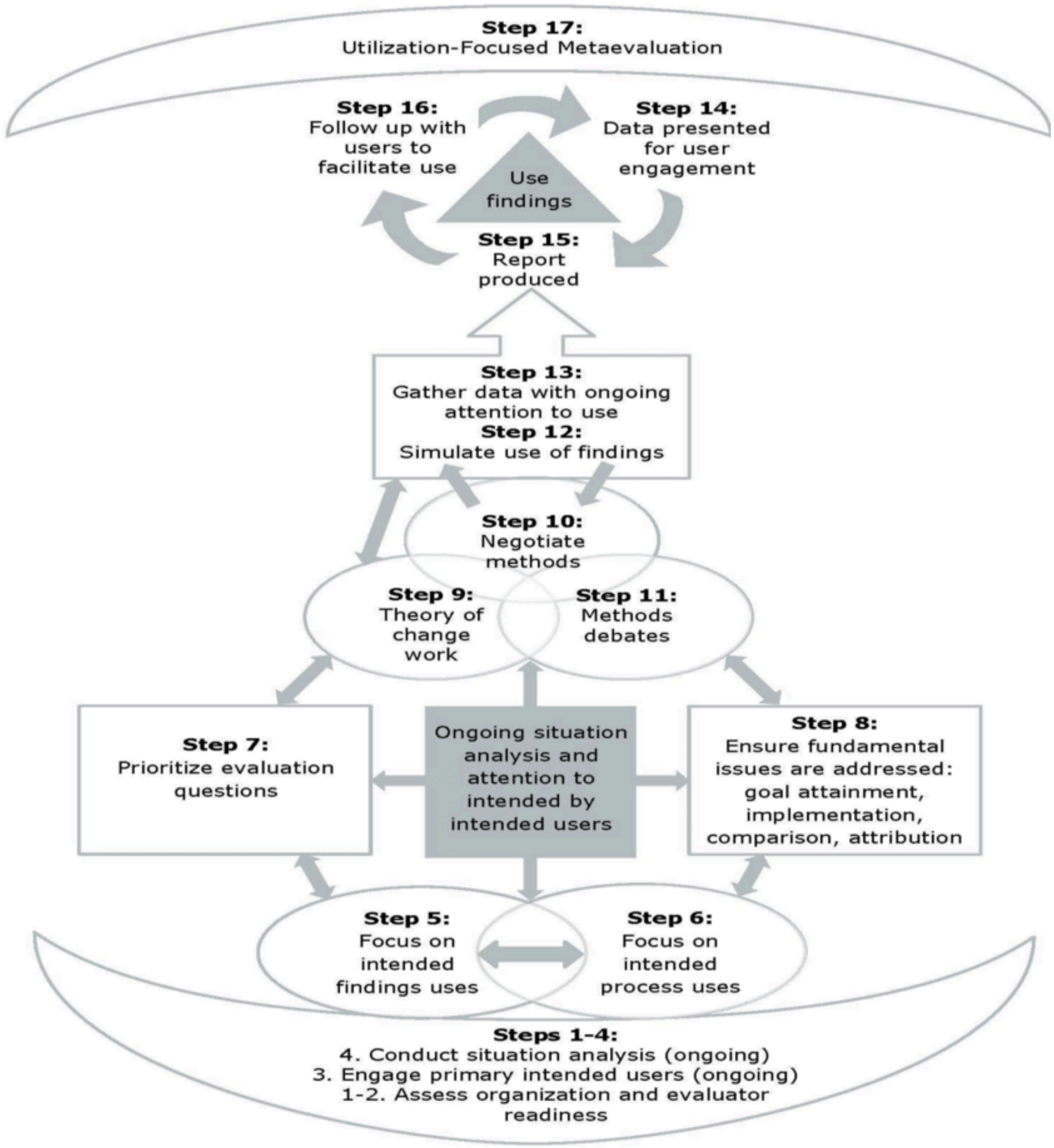
Utilization-Focused Evaluation

This utilization-focused evaluation took the stance that an evaluation should focus on intended use by intended users (Patton, 2012). This approach was adaptable and allowed the researcher to fit the evaluation to a particular situation with responsiveness to context (Patton, 2012). As Patton contends, “getting evaluations used is what utilization-focused evaluation is all about” (2012, p. 4).

The approach taken by this study to conduct an evaluation did not adopt any specific evaluation content, model, method, theory, or use (Patton, 2012). These aspects of the evaluation were determined through a process to help users select the most appropriate ingredients for their situation (Patton, 2012). The process of utilization-focused evaluation that was used for this research is organized into a 17-step checklist as summarized in Figure 3 below.

Figure 3

Utilization-Focused Evaluation 17 Step Process



Note. Source: Permission granted from Sage Publications (Appendix E) (Patton, M., 2012, p. 426). *Essentials of Utilization Focused Evaluation*. Sage Publications.

Utilization-Focused Evaluation Acknowledgement

The cornerstone of a utilization-focused evaluation is utility; implementing an evaluation that focuses on intended use by intended users (Patton, 2012). Utilization-focused evaluation guides evaluators and all stakeholders through a process that is highly customizable to the intended users of an evaluation so that the design, data, and outcomes inform intended use leading to meaningful action (Patton, 2012). Therefore, the methodology plan was tentative until the researcher met with the identified primary users to determine a path forward. Details of the evaluation process were confirmed upon committee approval of the research proposal and after IRB was approved at the evaluation site location. Following those tasks, the researcher connected with advising leadership at the evaluation site to further identify the specific intended users and strategies to implement the evaluation.

Step 1: Organizational Readiness

To begin a utilization-focused evaluation, the first step was to assess program and organizational readiness and commitment for reality testing (Patton, 2012). The utilization-focused evaluator then used that assessment to begin strengthening the ability to engage in a utilization-focused evaluation (Patton, 2012). Allotting time with the advising office and personnel at the beginning of this process to understand program and organizational culture facilitated the opportunity to design the evaluation in a manner that is relevant and useful within the same context that it took place (Patton, 2012).

Baseline Assessment of Evaluation Use.

In order to effectively determine how much users have benefitted from a program, baseline data must first be collected (Patton, 2012). Baseline data was collected for this research and followed guidance from Patton (2012, p. 22) by seeking to identify what site information was currently being collected about virtual advising; how that information was currently being used; stakeholder perceptions about evaluations considered useful or not; and stakeholder input about factors to consider when designing an evaluation to enhance utility. Baseline data also included reports about virtual advising utilization, current web information about accessing virtual advising services at the site, a review of the organizational structure for student services and advising staff, and a review of current training and processes for implementing virtual advising services.

To begin the evaluation process for this research, two half day workshops were coordinated with the site's dean of student services and vice president of student services to engage primary stakeholders. The determination to host two half day workshops was based upon the need for the advising office to remain open for student access. The primary stakeholders were split into two groups to participate in one of the scheduled workshop times. Each workshop was approximately 4 hours in length and hosted in a campus space commonly used for team meetings. As laptops are not currently assigned to employees for take-home use, activity packs provided to each participant contained a pen, notepad, and printed workshop booklet developed by the evaluator. Each booklet contained interview protocol and informed consent paperwork. They also contained supplemental information and activities that built upon exercises described by Patton (2012) to assess and facilitate stakeholder and program readiness for a utilization-focused evaluation.

Each workshop began with an evaluator led review of the interview protocol form and informed consent included. These forms covered pertinent information such as the purpose of the workshop and evaluation, workshop activities, and voluntary participation. The participants then transitioned to a semi-structured group warm up and review of background information related to the literary research and topic of virtual advising.

Baseline Associations and Perceptions of Evaluation.

To facilitate group input and perceptions about evaluation, this research utilized practices from Patton (2012) by engaging participants in a semi-structured group interview and an activity where participants were asked to respond to the following: *What words and feelings come to mind when you think about the word evaluation?*

Participants discussed their responses as a group while the evaluator noted their responses on a whiteboard. By unpacking these perceptions, the evaluator was able to acknowledge and address what Patton (2012, p. 23) refers to as pre-evaluation stress syndrome. This allowed the evaluator and participants to move toward a mutual understanding of the utilization-focused evaluation process and establish a shared definition of evaluation.

Creating a Positive Vision for Evaluation.

Once preconceived notions about evaluations were addressed and a shared understanding of utilization-focused evaluation was established, the evaluation launch workshops transitioned to a group discussion guided by the following questions from Patton (2012):

- If an advising evaluation were useful and actually used here, what would that look like?
- What sort of things might take place to tell you that the evaluation was successful?
- What would evaluation success look like from your perspective?

The goal of these questions was to establish a positive vision for evaluation. The notion is that people are more likely to achieve success if they have a solid vision of success (Patton, 2012). To close this portion of the workshop, the evaluator provided an overview of utilization-focused evaluation including the role of the evaluator and how this type of evaluation approach is conducted.

Assess Incentives and Barriers of Reality Testing and Evaluation Use in Program Culture.

To continue the process of getting ready for evaluation, participants were provided an opportunity to share their thoughts about needs to achieve the envisioned evaluation success as well as barriers that may need to be addressed. For this portion of the workshop, academic advisors were allowed to share confidential feedback via a field analysis activity in their activity booklet that posed several questions such as:

- What factors are likely to be positive forces that support this evaluation and the use of its findings?
- What factors are likely to create resistance or barriers to this evaluation and use of its findings?
- How might the positive forces be used to minimize potential negative forces?

These responses along with other booklet materials were collected and separated from the signed interview protocol and informed consent paperwork upon completion of each workshop to ensure confidentiality. This segment of the workshop created space for authentic insights that participants may have been reluctant to openly share (Patton, 2012).

Engender Commitment to Reality Testing.

According to Patton (2012) engendering a commitment to evaluation use often involves fostering an openness to change. This exercise appeals to participants' desire to be effective in what they do as a means to strengthen their commitment to reality testing (Patton, 2012). This portion of the workshops facilitated semi-structured group discussion using the following questions guided by Patton (2012):

- Are you willing to take a close look at whether what you believe is happening with virtual advising is actually happening?
- Are you willing to take a close look at whether what you hope virtual advising is accomplishing is actually being accomplished?

Grounding Any Specific Evaluation in the Professional Standards of Evaluation.

To effectively convey evaluation as an established profession, workshop participants were provided a copy of the standards and principles of evaluation as suggested by Patton (2012). These standards are defined by the Joint Committee on Standards for Educational Evaluation (2018) and include 30 statements that frame five dimensions of program evaluation quality: utility, feasibility, propriety, accuracy, and evaluation accountability. Sharing this checklist helped to reinforce evaluation quality standards for the evaluation process. It also provided an opportunity for group discussion about standards that participants felt should be upheld throughout the process.

Establishing Project-Specific Evaluation Norms and Standards.

Introducing professional standards for evaluation provides an opportunity to generate specific standards and norms within the specific evaluation context (Patton, 2012). Using the standards and principles of evaluation defined by the Joint Committee on Standards for Educational Evaluation, the workshop groups were able to discuss standout evaluation standards guided by the following question:

- What evaluation standards stood out to you that should be identified as a norm or expectation for this evaluation process?

Feedback from this discussion was documented on the whiteboard by the evaluator and summarized in a follow-up report shared during a subsequent virtual group meeting.

Generating Questions for Evaluation.

The next exercise of the workshops prompted participants to generate a list of meaningful evaluation questions. Although the evaluator had established questions related to their own research objectives, an activity was implemented to determine what questions would be meaningful and what answers would be useful to the participants as it related to virtual advising. This activity stimulated stakeholder reflection about what they wanted to learn from the evaluation process without being bound to jargon such as goals, criteria, or measurement (Patton, 2012). Using a worksheet with fill-in-the-blank slots, participants were asked to fill in up to 10 questions about what they would like to know about virtual advising, things they aren't certain about, or things that would make a difference in what they would do if given more information. By allowing the group to generate evaluation questions in their terms, it allowed the evaluation to become their own (Patton, 2012). It also created an opportunity for them to conceptualize the potential direction of the evaluation that would be built upon later in the workshops.

Step 2: Assess and Enhance Evaluator Readiness and Competence to Undertake a Utilization-Focused Evaluation

Patton (2012) describes evaluator competencies and credibility that are an essential aspect of utilization-focused evaluation. Patton (2012) refers to the American Evaluation Association's (AEA) Guiding Principles to discuss evaluator competence. Evaluator competence is described as having the skills, abilities, education, experience, and cultural competence to undertake the proposed evaluation (AEA, 2011). To establish credibility, evaluators must possess both the methodological competence as well as the interpersonal skills and cultural competence to conduct an evaluation (Patton, 2012). For a utilization-focused evaluation, evaluators should be reflexive about their strengths and weaknesses; assess the match between their competencies and knowledge and what is needed to work effectively with a group of primary intended users; adapt the evaluation as needed through an active-reactive-interactive-adaptive style; determine if one or more evaluator is needed; and maintain focus on the outcome of intended use by intended users (Patton, 2012).

Evaluator Competence and Credibility

The evaluator for this research has the competence and credibility to undertake a utilization-focused evaluation of virtual advising. The evaluator has an educational background in psychology and counseling that will support the interpersonal skills and cultural competence needed to engage stakeholders. The evaluator's educational background in community college leadership with specific emphasis on the NCCCS will further support the contextual and political nuances of conducting an evaluation at an institution within this system. Additionally, the evaluator's professional background in academic advising, advising leadership and quality enhancement plan (QEP) management foster the competencies necessary to conduct an evaluation including professional knowledge and project management. Further preparedness and professional development as part of reflective practice includes:

- Successful completion of doctoral-level coursework on evaluation.
- A thorough review of Michael Patton's *Essentials of Utilization-Focused Evaluation* as demonstrated through this methodology.
- A review of the American Evaluation Association's Guiding Principles.
- A review of evaluator competencies as described by Stevahn et al. (2005).

- Review of videos, articles, and webinars posted on the Resources section of the website www.utilization-focusedevaluation.org.

Step 3: Identify, Organize, and Engage Primary Intended Users

The third step of developing and implementing a utilization-focused evaluation focused on identifying, organizing, and engaging primary intended users. Making decisions about other aspects of the evaluation process involved the input of the primary intended users of the evaluation, also referred to as stakeholders (Patton, 2012). Patton (2012) provides ten tips for selecting and engaging primary intended users, which include:

> 1) Find and involve appropriate people, including those with interest and influence.
> 2) Recruit primary intended users who represent important stakeholder groups. 3) Find tipping point connectors meaning people whom others look to for information.
> 4) Facilitate high-quality interactions with primary intended users. 5) Foster interest and develop the capacity to engage in an evaluation. 6) Develop the technical and interpersonal skills needed for facilitation and training. 7) Demonstrate cultural competence and sensitivity. 8) Stay focused on use and be strategic about appropriate involvements that aim to enhance use. 9) Engage a manageable number of primary intended users; typically, less than 15 people. 10) Anticipate intended-user turnover. (p. 72-78).

Utilizing these steps to strategically and thoughtfully identify and engage stakeholders optimized the personal factor, meaning the presence of a person or group who personally cares about the evaluation and what it reveals (Patton, 2012). The personal factor emphasized that an evaluation is more likely to be used when stakeholders are engaged in the evaluation process in a manner that fosters a sense of ownership and meaningfulness (Patton, 2012).

In addition to the identified primary stakeholders (*n* = 11), survey feedback was also obtained from other site personnel with advising functions in their job role as well as students (*n*=241). Additional site personnel included faculty program advisors (*n*=31) and college liaisons (*n*=3).

For the purposes of this evaluation, primary stakeholders were identified and engaged through collaboration with the director of advising and the dean of student services at the identified site once IRB approval from the site was granted. The primary stakeholders identified included seven full-time professional advisors, an assistant dean that advises and oversees the site's transfer center, the director of advising, the dean of student services, and the vice president of student services.

Additional stakeholders engaged for feedback included students and college personnel with advising responsibilities in their roles at the research site. Student stakeholders focused on enrolled students ages 18 years or older enrolled in a for-credit curriculum course or program as this captures a broad overview of the primary population served in the advising office. College personnel included faculty program advisors that are assigned advising caseloads composed of students enrolled in a for-credit curriculum program in their respective area. Students are typically assigned to a program faculty advisor toward the end of their first semester of enrollment at the college. College liaisons advise high school students in dual enrollment programs.

The selection of these additional advising stakeholders was guided by two primary considerations: organizational structure and connection to advising within their roles at the institution. As the research site operates under a split advising model, program faculty advisors and college liaisons both play a vital role in the overall advising process. However, their reporting structures and student engagement activities vary which could impact the utility of this evaluation.

Step 4: Situation Analysis Conducted Jointly with Primary Intended Users

Situation analysis was an ongoing process in this evaluation, as demonstrated by the first three steps (Patton, 2012). This ongoing process was integral to the utilization-focused evaluation as use was more likely to be enhanced when situational factors were accounted for (Patton, 2012). Immersing primary users, or stakeholders, into the situation analysis began with an inquiry to understand the program, appreciate primary stakeholders' interests and potential areas of conflict, understand any prior history of evaluation for the program, and identify what decisions, if any, the evaluation findings guided (Patton, 2012).

The evaluator for this research collaborated with advising leadership at the site to assess leadership support for the evaluation, and need-to-know political factors that may have had an effect on evaluation use. The evaluator also collaborated with the full-time professional advisors to better understand the virtual advising program, stakeholder interests, evaluation history, and decision context. This information was gathered through a field analysis activity introduced in Step 1 that was adapted from suggestions by Patton (2012) wherein academic advisors were asked to independently respond to ten questions in their workshop booklets. The adapted questions which guided the academic advising field analysis included:

1. What is the history of academic advising at [research site]? How has academic advising here changed over time?
2. What is the history of virtual advising at [research site]? How has virtual advising here changed over time?

3. Currently, what are the primary goals related to academic advising at [research site], and what, if any goals are connected to virtual advising?
4. What strategies are being utilized to achieve the goals of academic advising? What about virtual advising?
5. What evaluations of academic advising have taken place at [research site] in the past? What about virtual advising?
6. Are there any current evaluation processes in place for academic advising? If yes, how is evaluation data being used? Does any of it relate to virtual advising?
7. What capacity does [research site] have to engage in evaluation (i.e., staff, budget, information systems, culture, data management)?
8. What factors are likely to be positive forces that support this evaluation and the use of its findings?
9. What factors are likely to create resistance or barriers to this evaluation and use of its findings?
10. How might the positive forces be used to minimize potential negative forces?

Step 5: Identify and Prioritize Primary Intended Uses by Determining Priority Purposes

In the fifth step of utilization-focused evaluation, Patton (2012) likens evaluation options to that of car sales. Just as there are many options when choosing a new car to purchase, there are also several evaluation options for users to choose from (Patton, 2012). As Patton (2012) reminds, evaluators do not choose the evaluation's purpose; the primary intended users do. This was why identifying and engaging primary intended users through Steps 3 and 4 was essential to move toward establishing the evaluation purpose (Patton, 2012). Patton (2012) describes six evaluation purposes and related primary uses of evaluation findings summarized in Appendix D.

The evaluator used the table above as a visual aid to facilitate group discussion with the primary stakeholders during the workshops following their reflection of preliminary evaluation questions. This activity was strategically placed before workshop participants refined their evaluation questions. It helped focus the design decisions and priority uses that were considered essential to move forward in the utilization-focused evaluation process. The group discussion introduced the proposed primary uses and explored the implications of each before discussing as a team which option was most appropriate and suitable for the evaluation process. By engaging stakeholders in this conversation, conflicts, competing purposes, indecisiveness and ambiguity was effectively addressed before moving forward (Patton, 2012).

Step 6: Consider and Build in Process Uses if and as Appropriate

In the previous step, the focus of the evaluation process was on clarifying and agreeing upon primary intended uses. Transitioning to Step 6 shifts the focus to discussing and deciding upon process uses (Patton, 2012). Process use occurs when stakeholders involved in an evaluation learn from the evaluation process itself or implement program changes based on the evaluation process; not just the evaluation findings (Patton, 2012). By having stakeholders engage in goal clarification and identifying measures for outcomes, the stage was set to impact program operations and outcomes before data was ever collected (Patton, 2012). Patton (2012) elaborates on six primary uses of evaluation processes:

1. Infuse evaluative thinking into the organizational culture and way of doing business.
2. Enhance shared understandings and get everyone on the same page.
3. Support and reinforce the program intervention to enhance outcomes, impact, and value.
4. Ensure that what gets measured gets done via instrumentation effects.

5. Increase engagement, self-determination, and ownership to empower participants and make evaluation meaningful.
6. Build capacity and ongoing contributions to specific findings through program and organization development.

The transition between Step 5 and Step 6 of the utilization-focused evaluation was not sequential or linear (Patton, 2012) as process uses were embedded throughout the evaluation. To ingrain evaluative thinking into academic advising culture, the evaluator maintained contact with the primary stakeholders across the fall 2023 and spring 2024 semesters and will maintain contact to help facilitate future initiatives stemming from the evaluation. Efforts established to promote evaluative thinking during the fall 2023 semester included the addition of a student satisfaction survey. The survey questions were reviewed and revised by the advisors and advising leadership during the annual summer advising retreat. The drafted questions were submitted online to the data and research office for official development. Once the survey was ready for use, the link was shared with advising leadership and added to a post-appointment email automatically disseminated through Microsoft Bookings. One of the survey questions asked students how they prefer to meet with an advisor. They were able to choose from the following options: appointment (online/virtual), appointment (on campus), walk-in (no appointment), email, or no preference. This question established a way to gather student feedback about their advising meeting preferences.

The advising office also transitioned their appointment scheduling platform during the fall 2023 semester under the guidance of the director of advising. The decision to transition appointment scheduling platforms was multifaceted. One challenge with the appointment scheduling platform previously in use was its limited access to additional features that were considered premium and would incur a cost. This limited advisors' ability to engage with certain customizations and tools that could enhance appointment scheduling. Another challenge was there was no identified free manner of exporting appointment data for review. As each full-time professional advisor managed their own appointment scheduling account through the previously used platform, there were no established standards of practice and the director of advising had little access to assist with appointment management. The move to Microsoft Bookings was an opportunity to improve appointment scheduling through increased access to free features and customizations, data exporting, streamlined services across the advising team, and leadership access to help manage the appointment pages for each advisor.

By moving the full-time professional advisors' appointment scheduling to Microsoft Bookings, services were able to be streamlined and data tracking of service usage was improved. Data collected through Microsoft Bookings included appointments scheduled with each full-time professional advisor and what type of appointment was selected. Service usage in the advising office also tracked walk-in meetings through Microsoft Form sign-in submissions, and through the number of email responses to communications received to the advising office's email account. Through the director of advising, service usage for appointments, including each appointment type scheduled, walk-in submissions, and advising office emails are each totaled to monitor usage month-to-month as well as track overall usage for the academic year.

Collaborative and ongoing conversations from advising leadership and the evaluator to the full-time professional advisors about these changes created opportunities for the advisors to share their feedback, recommendations, and achieve shared understandings. This approach facilitated group input in the decision-making process as a means to optimize advisors' engagement, sense of control, and reflection about the process as discussed in Patton (2012) . It also helped normalize data collection and infuse evaluation as a meaningful aspect of advising practices.

Step 7: Focus Priority Evaluation Questions

The seventh step of utilization-focused evaluation moves toward focusing evaluation questions. Patton (2012) contends that no evaluation can assess everything; priorities must be determined, and questions focused. This approach prioritizes questions by generating a clear stream from intended use by intended users and involves focusing on varied ways (Patton, 2012). Step 7 transitions from determining the overall purpose to specific evaluation questions (Patton, 2012). Patton (2012, p. 172) indicates six criteria for utilization-focused evaluation questions that informed the evaluator and primary stakeholders when establishing the group's agreed upon evaluation questions. Patton (2012) synthesizes potential evaluation questions which are dependent upon the overall purpose of the evaluation introduced in Step 5; this study relied upon the recommended evaluation questions to guide the virtual follow up meeting with advisors. Topics chosen by advisors were related to summative, formative, accountability, monitoring, developmental, and knowledge-generation.

As with several components of the utilization-focused evaluation steps, Patton (2012) describes a menu of options to focus an evaluation based on different priority questions (pp. 182-187). The evaluator used the figure above as a resource in the workshop booklets to begin focusing the primary stakeholders' priority evaluation questions. In each workshop group, the active engagement and dialogue across all participants limited the amount of time available for the final two activities. Each group began discussing their thoughts about a refined list of evaluation questions before the workshops concluded. The conversation was carried over to a follow-up virtual advising meeting where all participants were invited to join through Microsoft Teams.

The full-time professional advisors and director of advising meet virtually via Teams once a month to discuss pertinent advising topics. The January 2024 meeting was utilized as a continuation to the initial workshops hosted in December 2023. In preparation for this meeting, the evaluator developed a summative report to link key insights from both workshops by indicating the identified primary purposes of the evaluation, standout professional standards guiding the evaluation, and a collective list of the preliminary evaluation questions brainstormed during the workshops (Appendix F). The document also included two activities intended to help primary stakeholders refine their evaluation questions and identify data collection methods.

The summative report was stored through the evaluator's OneDrive account provided by the research site. This allowed the evaluator to share the Word document virtually with primary stakeholders so that they could access the information and participate in the two activities. The first activity prompted participants to review their preliminary evaluation questions and work collaboratively with one another to refine and finalize the list. The second activity tasked participants with determining appropriate data collection methods based upon their finalized list of evaluation questions. The evaluator included early ideas presented by participants during the workshops pertaining to data collection options. By sharing the document virtually with primary stakeholders, the evaluator was able to give participants the opportunity to interact with the activities and enter their own comments and thoughts. The evaluator used a standard font color when developing the report and tasked participants with using a different colored font per person as a way to differentiate their feedback. To maintain confidentiality, participants were not asked to record their names or other identifying information as they wrote in the shared report.

Step 8: Check that Fundamental Areas for Evaluation Inquiry Are Being Adequately Addressed

Step 8 of utilization-focused evaluation allows stakeholders to determine where focused evaluation questions established through Step 7 fit within the fundamentals of evaluation (Patton, 2012). This step goes hand-in-hand with Step 7 with both processes typically occurring simultaneously (Patton, 2012). The evaluation fundamentals can be described in three questions (Patton, 2012, p. 192):

1. The implementation question: What happened in the program?
2. The outcomes question: What resulted?
3. The attribution question: Can what resulted be attributed to what was implemented?

These three questions are necessary to determine if the outcomes from the evaluation can be attributed to the model's implementation (Patton, 2012). Patton (2012) asserts that a utilization-focused evaluator can help intended users review plans and goals to determine if they have an outcome focus. By doing so, traditional goals are able to focus on participant outcomes (Patton, 2012). Patton (2012) provides users with a Utilization-Focused Outcomes Framework composed of six elements to aid the design of an outcomes evaluation:

1. Identify specific participant target groups.
2. Specify desired outcomes.
3. Select outcome indicators: Operationalizing.
4. Performance targets.
5. Details of data collection: The evaluation design.
6. How results will be used.

By engaging primary stakeholders in the initial evaluation workshops and proceeding virtual meeting, the evaluator was able to help the group with tasks including identifying target groups for data collection, discussing anticipated outcomes and goals, and actively involving them in the data collection.

The third question Patton (2012) addresses in Step 8– the attribution question– is informed by the connection between implementation and outcomes. This question seeks to determine to what extent program outcomes can be attributed to the program itself (Patton, 2012). Patton (2012) suggests that primary intended users determine how important answering the attribution question is and whether establishing a causal relationship is a priority in relation to where the program is at the given stage of the evaluation process (Patton, 2012). Given other ongoing initiatives at the research site that impact the advisors and their work, answering the attribution question was not identified as a crucial task.

Step 9: Determine What Intervention Model or Theory of Change is Being Evaluated

Step 9 of utilization-focused evaluation advances topics covered in Step 8 by clarifying the intervention model being evaluated and identifying the underlying theory on which a model is based (Patton, 2012). Evaluation involves clarifying models, questioning assumptions, and identifying theories of change that can be tested (Patton, 2012). Utilization-focused evaluation seeks to ensure that these processes increase the usefulness of the evaluation for primary intended users (Patton, 2012). Patton (2012) describes two primary options for evaluation in Step 9: intervention models or theories of change.

Logic modeling was informally utilized for this evaluation as inputs and activities pertaining to virtual advising helped establish subsequent outputs and outcomes. The evaluator also made a connection to the guiding conceptual framework of this study, Habley's (1981)

Advisement-Retention Model. This model promotes academic advising as a student-centered, developmental process that is critical to student retention (Habely, 1981). The Advisement-Retention Model encourages institutions to enhance services that support students' goals and connectedness to the institution (Habley, 1981). Discussing Habley's (1981) model during the initial workshops provided valuable insights for reflection and additional guidance for enhancing virtual advising services that are useful and promote retention.

Step 10: Negotiate Appropriate Methods to Generate Credible Findings That Support Intended Use by Intended Users

Just as decisions about evaluation focus and priority issues are guided by the overarching evaluation goal–intended use by intended users–so too are decisions about methods (Patton, 2012). As with other aspects of the utilization-focused evaluation process, actively engaging stakeholders is an integral part of method decisions. The evaluator and primary intended users have a stake in the evaluation, so together they negotiate the design, methods, and measurement decisions (Patton, 2012). To facilitate method decisions, the evaluator used Patton's (2012, pp. 273-280) 10 utilization-focused method principles to support collaboration with the primary stakeholders.

Step 11: Make Sure Intended Users Understand Potential Methods Controversies and Their Implications

The previous step of the utilization-focused evaluation process emphasized appropriate methods to produce credible findings and support the overarching goal of intended use by intended users (Patton, 2012). Step 11 of the process occurs in conjunction with Step 10 to assess methods controversies and related implications (Patton, 2012). Patton (2012) emphasizes that there is great debate surrounding what constitutes rigorous methods or quality evidence and discusses several interrelated debates concerning qualitative versus quantitative data collection in evaluation research. In order to successfully navigate potential controversies, the evaluator collaborated with primary stakeholders to establish a data set that will illuminate their evaluation questions despite any time or resource constraints as directed by Patton (2012). A blend of qualitative and quantitative data was collected through the workshop activities, advising service usage data, and surveys distributed to advising personnel and students. The surveys distributed to advising personnel and students relied upon convenience sampling to gather responses. Although randomization may be a preferred approach as noted by Patton (2012), the following factors were relevant to the decision to utilize convenience sampling:

- The general makeup of the institution as a commuter school where students come and go from campus, in addition to the online presence of learning wherein some students may not come to campus at all.
- The varied scheduling, responsibilities, and reporting structures of advising personnel across the college posed logistical challenges.
- Budget constraints that limited options for the evaluator or primary stakeholders to incentivize participation in data collection.

As a branch of forecasting discussed in Step 12, these were among factors weighed in determining an appropriate data collection method that would maximize efficiency and convenience while still obtaining valuable feedback. By employing the help of the site’s data and research office to develop and distribute two surveys, a wide net was cast to gather as many responses as possible from additional stakeholders to include both students and employees.

Step 12: Simulate Use of Findings

The first 11 steps of the utilization-focused evaluation process cover a lot of ground in determining the purpose and intended uses of the evaluation in collaboration with primary intended users; priority evaluation questions identification; and design, measurement, and data collection decisions (Patton, 2012). In preparation for data collection, the evaluator and primary stakeholders were able to forecast the evaluation findings through conversations in the advising office. As part of these conversations, consideration of potential risks such as the likelihood of certain things going wrong were assessed.

Step 13: Gather Data with Ongoing Attention to Use

Step 13 transitions from planning and practice to implementation and data collection (Patton, 2012). Patton (2012) describes four issues to consider during data collection that are likely to affect use.

1. ***Effective Management of the Data Collection Process***

Among competencies that are essential for evaluators is project management (Patton, 2012). Patton (2012) provides six considerations for evaluators: managing funds, managing time, managing data collection, managing relationships, and managing the unexpected. The objective for evaluators is to manage evaluation data collection thoughtfully and consistently and solve inevitable problems to ensure high-quality findings (Patton, 2012).

By adhering to the aforementioned steps in the evaluation process and actively involving primary intended users, the evaluator for this research was able to establish and maintain communication, collaborative relationships, and timely activities with consideration of additional factors such as other institutional initiatives, data collection, and priorities.

2. Implementing Agreed Upon Participatory Approaches to Data Collection

Implementing agreed upon participatory approaches to data collection builds upon process uses discussed in Step 6 (Patton, 2012). When participatory approaches were used for data collection, the evaluator was able to facilitate active involvement of stakeholders in the data collection process (Patton, 2012). Although the extent of involvement in data collection was not able to be solidified until primary intended user input was gathered and agreed upon, the evaluator for this research ensured that data collection for virtual advising services included the primary stakeholders in survey development and dissemination.

3. Keeping Primary Intended Users Informed

A good evaluation process must integrate feedback mechanisms to primary users (Patton, 2012). Patton (2012) provides 10 examples of updates to share with intended primary users during the data collection process, which helped to guide this study. In addition, utilization-focused evaluators should offer reminders about the purpose of and timelines for the evaluation; explain data collection details; and provide feedback about emergent results (Patton, 2012). To keep primary intended users up to date, the evaluator followed guidance from Patton (2012) to share updates to stakeholders at agreed upon intervals. Updates included data access, survey response rates, task operations, and emergent findings.

4. Providing Early Feedback by Sharing Emergent Findings

Debriefing and providing feedback throughout the evaluation process is integral to keeping primary intended uses engaged and prepared for interpretation of later findings (Patton, 2012). Patton (2012, p. 334) provides evaluators with three tips for interim reporting:

- Emphasize reports as *interim* and *confidential* explicitly to convey that stakeholders are getting early access to findings that are not ready to be widely shared.

- Keep interim reporting focused on one to three findings of key topics so that the report is short and focused.
- The longer the data collection timeline, the more imperative it is to identify ways to keep primary intended users updated.

To engage primary intended users with emergent results, the evaluator followed tips from Patton (2012) to share interim updates with primary stakeholders. This included a written report and activity space in the virtual advising meeting following the workshops as well as verbal communication in the advising office where emergent data was shared with advisors using spreadsheets and graphs for visual aids.

Step 14: Organize and Present the Data for Interpretation and Use by Primary Intended Users

Step 14 of the utilization-focused evaluation process involves organizing and presenting data for interpretation and use by the primary intended users (Patton, 2012). There are four processes involved in interpreting evaluation findings (Patton, 2012, p. 337):

1. **Analysis**: What was found? Transitioning raw data to understandable findings.
2. **Interpretation**: What does it mean? Determining the significance of and explanations for outcomes.
3. **Judgment**: What does it mean? Determining merit, worth, and significance, including to what extent the outcomes are positive or negative.
4. **Recommendations**: Now what? Determining actionable implications of the outcomes.

Once evaluation findings have been interpreted, judgments will be made about those interpretations. To render judgment about the interpretation of findings includes factoring in values and standards to inform this process (Patton, 2012). At this point in the evaluation process the evaluator can render judgment independently or facilitate group input among primary intended users so that they may come to their own conclusions (Patton, 2012).

The evaluator for this research followed guidance from Patton (2012) to focus the analysis of findings by adhering to the seven principles of solid analysis: answer the priority evaluation questions; keep the presentation of data simple; balance alternative perspectives and conflicting data; provide clarity about key terms; make appropriate and thoughtful comparisons; identify and focus on significant findings; and distinguish facts from opinions (Patton, 2012).

Given relevant contextual factors that include time constraints and stakeholders' responsibilities within their advising roles, the evaluator utilized the collected data to provide initial interpretations and judgments about virtual advising at the research site to share with primary stakeholders. To move from judgments to recommendations, Patton (2012) offers 10 guidelines, which aided in the approach to communicate, foster interest, and offer cultural sensitivity in this study. The evaluator involved stakeholder input to refine and document recommendations that will be added to a summative report as will be discussed in Step 15.

Step 15: Prepare an Evaluation Report to Facilitate Use and Disseminate Significant Findings to Expand Influence

For the purposes and scope of this research to implement a utilization-focused evaluation to answer the guiding research questions, Step 15 concluded the efforts to complete this study. Producing a report is a distinct process from communicating findings and it is important to remember that a report is an output rather than an outcome (Patton, 2012). Reports vary depending upon the evaluation purpose and information needs of primary intended users (Patton, 2012). An evaluation reporting menu is an available tool for evaluators to strategically choose from a variety of reporting structures based upon the purpose of the evaluation (Patton, 2012).

The reporting menu reveals the essence that reports do not have a standard format to follow as they are intended to be formatted in a manner that fulfills the purpose of the evaluation and meets the needs of the intended users (Patton, 2012). Upon conclusion and approval of this study, the evaluator will reply upon the reporting menus with a focus on five utilization-focused reporting principles described by Patton (2012).

As advising priorities focus on supporting another college-wide initiative and ongoing course planning and registration activities, a report will be developed at a near future date pending final approval of this study. The evaluator for this research will coordinate with advising leadership to develop a comprehensive report that aims to help them successfully transition to the final two steps of the utilization-focused evaluation process wherein they are able to act on findings. The report will be provided to primary stakeholders during a debrief and exit workshop at the identified site during an upcoming advising staff meeting, or during the summer advising retreat where the advising office closes for a professional development day.

Limitations

There are a few noteworthy limitations to this study. Given the contextual and customizable nature of utilization-focused evaluation, results cannot be generalized to community colleges or four-year colleges and universities in North Carolina or the United States. The findings of this study may not be applicable to colleges that do not have the resources or access to provide virtual advising services. Finally, this study is in part subjective, as it builds upon the perceptions and experiences of the institution’s stakeholders including staff, administrators, and students.

Delimitations

Given the evaluative nature of this study, it was imperative to assess virtual advising from multiple stakeholder perspectives including professional academic advisors and other personnel that had advising duties, students, and student services administrators. Full-time professional advisors were identified among the primary stakeholders of the evaluation as their primary role at the institution is to advise students. This study focused specifically on advising services provided through synchronous virtual modalities to evaluate its outcomes in supporting students in a pandemic era. This study focused on a North Carolina community college where virtual services were being implemented which excluded community colleges that do not offer professional advising services in an online environment.

Positionality Statement

As a professional and leader in academic advising within the North Carolina Community College system, it is the position of the researcher that academic advising is an integral part of student success. Additionally, becoming involved in virtual advising services as a result of the onset of the COVID-19 global pandemic, it is the position of the researcher that the availability of synchronous virtual advising services is essential to have meaningful engagement with students who would otherwise be excluded from a resource evidenced as critical to student success.

Conclusion

This chapter provided specific detailed steps of the process of carrying out the utilization focused evaluation efforts for a virtual advising program at a community college in North Carolina. A combination of tools including Microsoft Outlook, Teams, Bookings, and OneDrive were accessible for the collection of data through the researcher's password protected accounts.

Data storage was only accessible by the researcher through a password protected device. Data was stored according to the research site's policies for possible future research connections. The potential for additional research post-evaluation with the site includes finalizing step 15 and transitioning to steps 16 and 17 of the utilization-focused evaluation processes. In follow up studies, a connection to determine a higher level of enhanced use and conduct a meta evaluation would contribute further value to the process of implementation.

FINDINGS

This chapter provides findings from the data collection methods explained in the previous chapter. This chapter is organized by the subset of three research questions guiding this evaluation and related key findings, respectively. Each key finding (*n*=4) provides a detailed analysis of data collected throughout the U-FE process that include advising center utilization data, student satisfaction survey and evaluation survey responses, and employee evaluation survey responses. The research questions addressed in this chapter are:

1. What are the motivations towards increasing the virtual presence of professional advising at one North Carolina community college?
2. What are the perceived challenges and opportunities experienced by professional advisors at a North Carolina Community College when providing virtual services?
3. What are the perceived best practices by professional advisors at a North Carolina Community College when providing virtual advising services to community college students?

Research Question 1: Motivations Towards Increasing Virtual Advising

The first research question asks: *What are the motivations towards increasing the virtual presence of professional advising at one North Carolina community college?* Student responses across two surveys informed the following key finding: overall, students prefer virtual advising because it is easy and convenient.

Key Finding One: Students Prefer Virtual Advising Because of Ease and Convenience

Key Finding One Evidence: Student Satisfaction Survey Data.

Guided by the first step of the U-FE process, the evaluator began by seeking existing advising data at the research site. As prior personnel changes impacted data collection and storage, no advising data predating fall 2023 was identified. The new advising leadership began efforts to improve this by reviving a student satisfaction survey. The survey asked for feedback from students who received advising services about course planning, goal setting, their advising experience, and overall satisfaction. One of the survey items asked students about how they prefer to meet with an advisor. Table 1 provides an overview of responses gathered from January 2024 through the end of March 2024.

Table 1

Student Satisfaction Survey Responses to Advising Meeting Preference (N=51)

Survey Response	Frequency (*n*)	Percentage (%)
Appointment (on campus)	7	14%
Appointment (online/virtual)	31	61%
Walk-in (no appointment)	1	2%
Email	2	4%
No preference	10	19%
Total	51	100%

Note. Summary of student satisfaction survey responses to advising meeting preference.

Based on the overall responses (*n*=51), 61% percent (*n*=31) of students preferred appointments that are online/virtual (*n*=31) as opposed to their other service options. To further understand students' experiences and preferences toward virtual advising, an additional survey was disseminated at the end of March 2024 as part of the data collection methods selected and developed by the evaluation's primary stakeholders.

Student Virtual Advising Evaluation Survey Overview.

The student virtual advising evaluation survey was distributed twice via email by the site's institutional research office to students identified as currently enrolled in for-credit curriculum classes (*n*=4,120). The first email notification was sent toward the end of March 2024 and again one week later with an overall survey response rate of 5.8% (*n*=241). Once participants opened the survey, they received an introductory statement that explained the purpose of the survey, definition of virtual advising, and voluntary and confidential response parameters (Student survey introduction for research site student evaluation survey).

As the email distribution list included all students currently enrolled in a for-credit curriculum course without other excluding criteria, the first question of the survey asked participants to verify that they are currently enrolled at the research site in a for-credit program and are 18 years of age or older. Given the exclusion of identifying criteria, this allowed participants to verify their age and enrollment status and exclude any responses that did not meet the aforementioned criteria. Among the participants, 97% (*n*=234) responded ‘yes’ to the first question and were routed to the second. Three percent (*n*=7) of participants responded ‘no’ and were routed to the form’s submission page. One participant skipped the first question and was therefore excluded from subsequent data analysis. The student virtual advising evaluation survey questions (*n*=13) included:

1. I am currently enrolled at [research site] in a for-credit certificate, diploma, or degree program and am 18 years of age or older.
2. What types of advising have you experienced at this college? Check all that apply.
3. What type of advising do you most prefer?
4. Why do you prefer this type of advising over other options?
5. Have you ever attended a virtual advising meeting?
6. Did you meet with an advisor in [advising center] or a program advisor in your program area?

7. What was your experience like with virtual advising? Please rate your agreement with the following prompts.
8. Why did you choose virtual advising over other scheduling options? Please check all that apply.
9. From your experience, what do you like best about virtual advising as compared to other advising options?
10. From your experience, what do you like least about virtual advising services as compared to other advising options?
11. What do you think would make virtual advising appointments better? Why?
12. Overall, how would you rate your experience with virtual advising at this college?
13. What would your ideal virtual advising meeting look like and why?

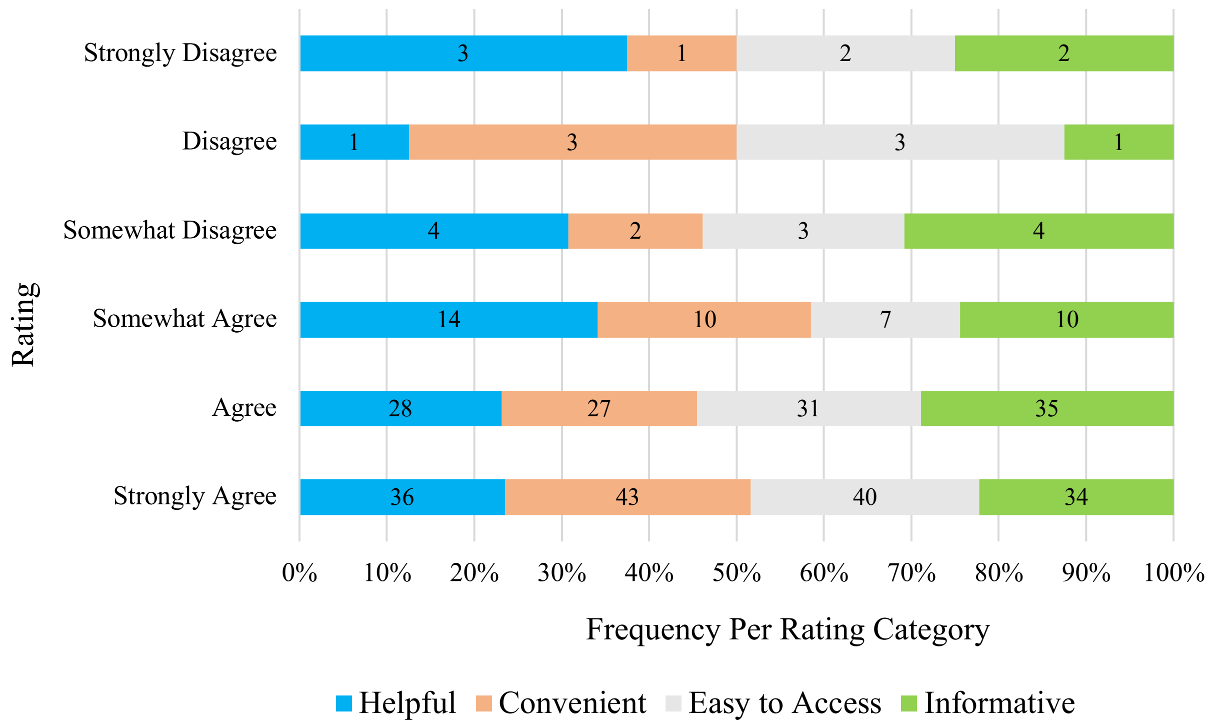
Key Finding One Evidence: Student Virtual Advising Evaluation Survey Data.

Of the student virtual advising evaluation survey items, four questions provided supporting evidence of the first key finding. Student responses to these questions collectively revealed that virtual advising is convenient, flexible and easy (Student survey feedback about virtual advising). Students indicated that virtual advising works well with their varied schedules and minimizes challenges related to travel, distance, work, and childcare (Student survey feedback about virtual advising). Virtual advising can also accommodate students with accessibility needs (Student survey feedback about virtual advising).

Question 7 of the student virtual advising evaluation survey asked participants to rate their overall experience with virtual advising in relation to helpfulness, convenience, ease of access, and information as shown in Figure 4.

Figure 4

Student Survey Question 7: Virtual Advising Experience Agree/Disagree Ratings

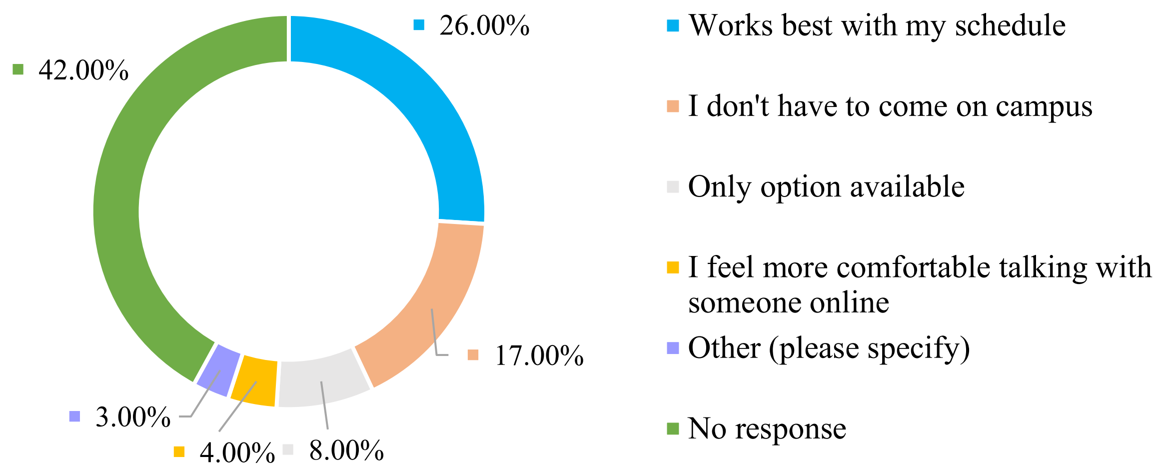


Note. Summary of students' responses to the question: *What was your experience with virtual advising like? Please rate your agreement with the following prompts.*

Among the ratings, 78 indicated strongly agreed, agreed, or somewhat agreed that virtual advising was helpful as well as easy to access. Eighty responses were strongly agree, agree, or somewhat agree that virtual advising was convenient. Nearly 80 responses also rated virtual advising with either strongly agree, agree, or somewhat agree in relation to how informative it was. Question 8 of the student virtual advising survey transitioned to ask students why they chose virtual advising over other service options (Figure 5).

Figure 5

Student Survey Question 8: Reason for Choosing Virtual Advising Over Other Options (N=241)



Note. Student virtual advising survey responses to the question: *Why did you choose virtual advising over other scheduling options? Please check all that apply.*

Approximately 26% (*n*=62) of respondents said that virtual advising worked best with their schedule. Around 17% (*n*=42) indicated that virtual advising was chosen over other options because they did not have to come to campus. This was followed by 7% (*n*=18) of participants that indicated virtual advising was the only option available to them, and 4% (*n*=10) who felt more comfortable speaking to someone online.

Question 9 of the student virtual advising evaluation survey asked participants what they liked best about virtual advising as compared to other advising options. Utilizing Excel, responses were analyzed to identify recurrent word variations. The top three words referenced throughout their responses (*n*=76) were variations of convenient (*n*=19), easy (*n*=12), and schedule (*n*=9). Examples of students' perceptions included sentiments that virtual advising provided more interaction and was more personal that phone or email; it is better than email because questions are answered more quickly and also better than in-person because the student can be in their own space; virtual advising is just as effective but more convenient; and, virtual advising saves time by not having to drive a long distance for a short meeting (Student survey feedback to question 9). Question 12 of the survey asked participants to rate their overall satisfaction with virtual advising at the research site (Table 2).

Table 2

Student Survey Question 12: Overall Virtual Advising Rating (N=241)

Advising Preference	Frequency (*n*)	Percentage (%)
Very satisfied	41	17%
Satisfied	23	9%
Neutral	12	5%
Dissatisfied	5	2%
Very Dissatisfied	4	2%
No Response	156	65%
Total	241	100%

Note. Students' virtual advising survey responses to the question: *Overall, how would you rate your experience with virtual advising at this college?*

Around 26% (*n*=64) of respondents indicated an overall satisfaction rating of either very satisfied or satisfied as it relates to their experience with virtual advising. Less than 5% (*n*=9) of respondents reported feeling dissatisfied or very dissatisfied with virtual advising at the research site. Given the voluntary nature of the survey, many participants elected not to answer this question (*n*=156).

Students' survey answer selections and comments to these questions demonstrated a repetitive pattern indicating that virtual advising is an easy and convenient service option that helps address travel and scheduling challenges. The indication that virtual advising can remove certain barriers and increase access provides clear evidence for motivations to increase the presence of virtual advising as introduced in the first research question. Additional data collected throughout the evaluation process informed key findings for the second research question.

Research Question 2: Perceived Challenges and Opportunities with Virtual Advising

The second research question asks: *What are the perceived challenges and opportunities experienced by professional advisors at a North Carolina community college when providing virtual services?* Evidence demonstrating both challenges and opportunities to virtual advising emerged through the collection and assessment of advising utilization data, survey responses to the student and employee virtual advising evaluation surveys, and information collected through the evaluation workshops and virtual meeting with the primary evaluation stakeholders. Through the data analysis process, two key findings emerged:

- **Key finding 2**: Advising service options and utilization are dynamic and complex.
- **Key finding 3**: Stakeholders' knowledge and perceptions influence their engagement in the evaluation process.

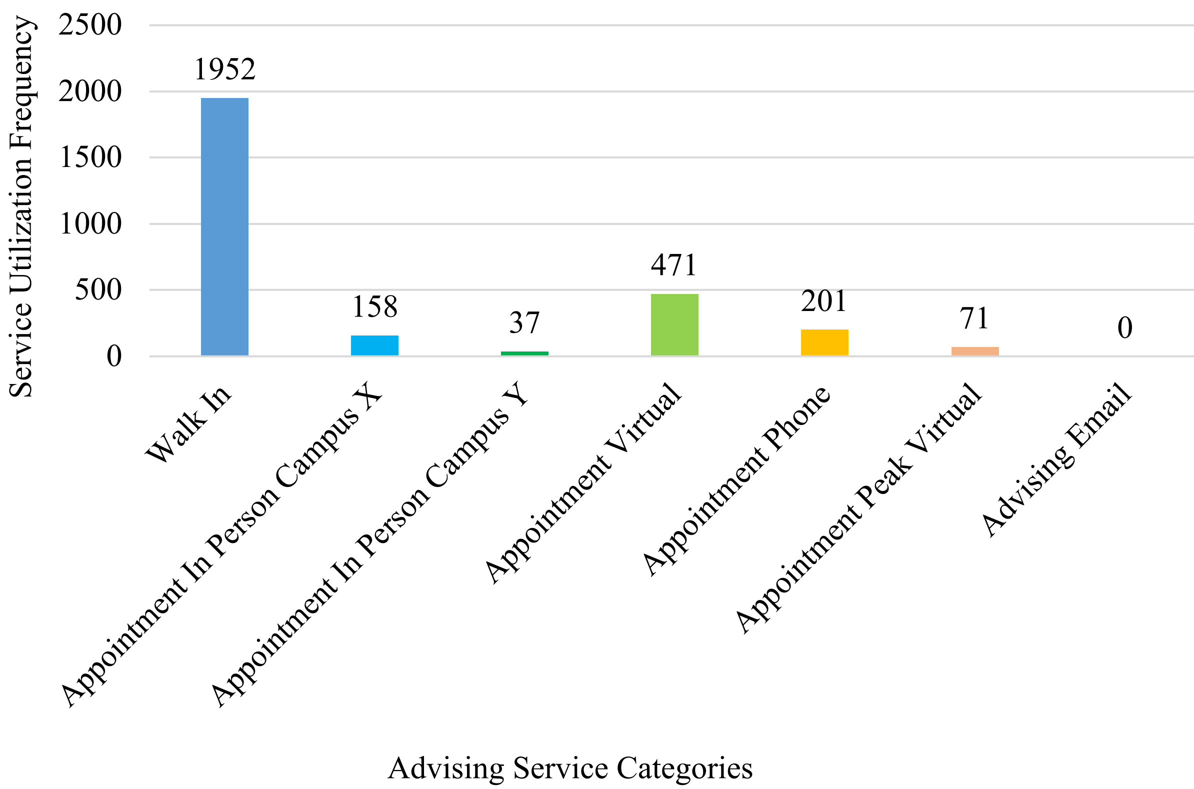
Key Finding 2: Advising Service Options and Utilization are Dynamic and Complex

Key Finding 2 Evidence: Advising Utilization Data.

Given the lack of data predating fall 2023, the director of advising leveraged existing and cost-efficient institutional resources to establish a baseline of advising utilization data collection. Efforts across fall 2023 and spring 2024 to collect and monitor advising utilization data occurred through advising data exports from Microsoft Bookings, Microsoft Forms submissions for walk-in office visitors, and the quantity of email replies sent from advising staff to inquiries received to the advising office email account. Figure 6 provides an overview of the 2023-2024 academic year and highlights the advising service utilization totals for each advising center service option, spanning from December 2023 through March 2024.

Figure 6

Overall Advising Service Utilization Data December 2023—March 2024 (N=4,082)

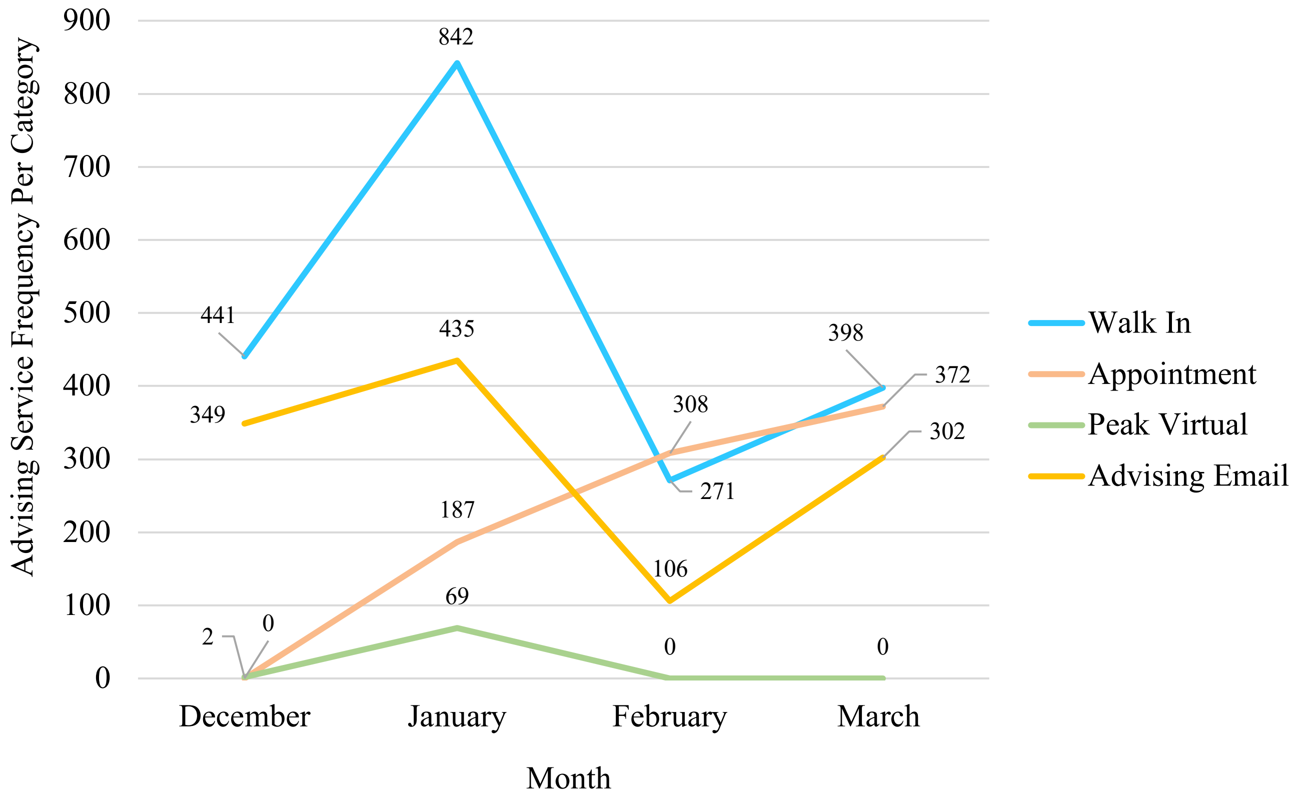


Note. Research site advising service utilization data shown.

Of the total advising service usage (*n*=4,082), nearly 48% (*n*=1,952) came from walk-in visitors to the advising office. This was followed by approximately 29% (*n*=1,192) of usage stemming from emails to the advising office, and 13% (*n*=542) from the combined total of virtual appointments and peak virtual appointments. The availability of advising service options changed at different times of the academic year, impacting students' selections and resulting overall service utilization. Figure 7 shows how different services encountered fluctuations in use across the end 2023 and early 2024.

Figure 7

Advising Service Monthly Utilization December 2023-March 2024



Note. Research site monthly advising service utilization data shown.

Walk-in support was the most frequently utilized service option, hitting its peak during January 2024 (*n*=842) when appointment scheduling was temporarily limited to manage in-office traffic. Emails to the advising office were also at a high during this time (*n*=435). Appointment use rose across December 2023 to March 2024, briefly surpassing walk-in services during the month of February (*n*=308). Peak virtual advising, a new virtual appointment scheduling option specifically opened and closed around peak advising and registration periods, was most engaged during January 2024 (*n*=69).

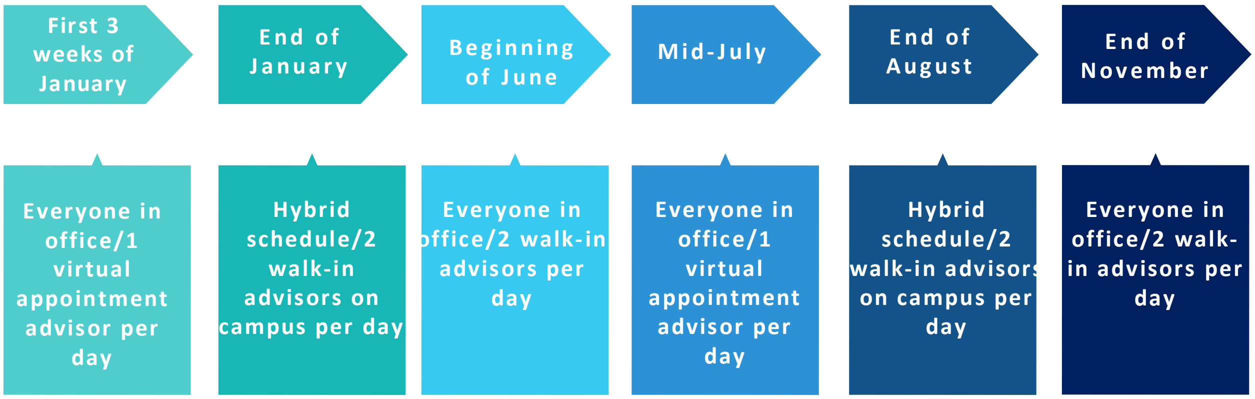
Advising Utilization Data Considerations and Limitations.

Generally, the different advising service options are available to students every day during the advising center's hours of operation. However, several key factors are important to consider to better understand the utilization of the advising center's services. To manage the capacity of advising resources with student volume, the availability of advising service options varied at different intervals.

Advising restrictions prompting students to see an advisor for course planning and registration along with registration and enrollment cycles caused fluctuations of student traffic through the advising center. Historically, appointment options were temporarily removed during the busiest advising periods shortly before the start of a new semester as a means to manage in-office traffic. The director of advising implemented peak virtual advising appointments as a new service option at the end of December 2023 and into the first couple of weeks in January 2024, specifically targeting students unable to visit a campus location for in-person assistance during the late advising period leading into the spring 2024 semester. One professional advisor per day was assigned to help manage those appointments while the remaining team members responded to walk-in office traffic. Additionally, phone advising was removed as an official appointment service in response to challenges with verifying students identify and troubleshooting website navigation and other electronic processes without visual aid. These factors, which impacted the availability of service options throughout the year, were couple with an adaptive advising schedule that is depicted in Figure 8.

Figure 8

Annual Advising Timeline Overview



Note. Annual advising timeline of the research site.

The advising scheduling cycle is marked by periods of time where all team members reported to campus daily and other periods where they had a hybrid work schedule allowing for each team member to work remotely one day per week on a planned rotation. This rotation was driven by enrollment and registration cycles and furthered shaped the variations in advising service availability. For example, during hybrid work periods, advisors could only provide email and virtual appointments on their remote days thus increasing the availability and selection of virtual meetings. Conversely, appointments were extremely limited during peak advising periods where student traffic is typically at its highest, thus driving students toward walk-in office meetings.

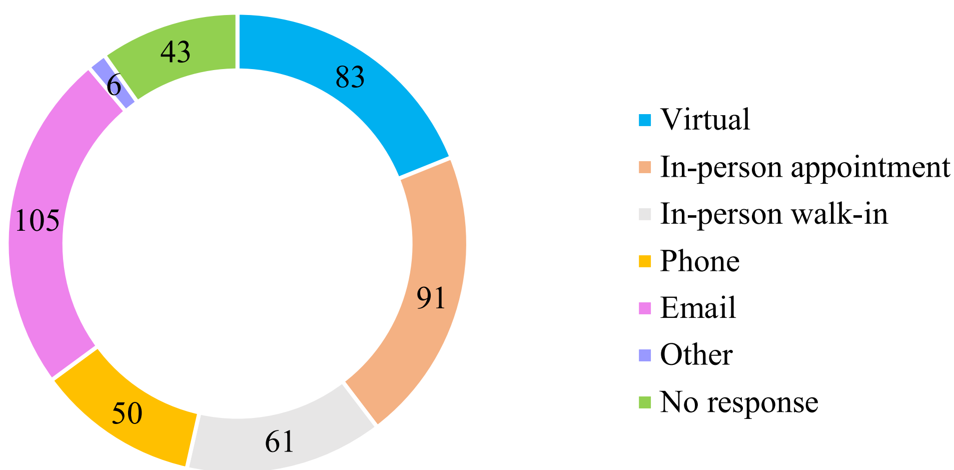
In addition to these considerations, it is also imperative to address limitations in the advising utilization data. Advising utilization trends are sourced from the advising center and professional advising staff, but there is no consistent data collection process or standard across the institution to compare with other advising personnel, namely program faculty advisors and college liaisons. There are also missing pieces of data for the advising center that could further inform their utilization of services. This includes historical advising data, tracking appointment attendance, average advising meeting length across metrics such as categorical meeting topics, individual advisor phone call and email responses, and referrals to and from the advising center and other campus departments.

Key Finding 2 Evidence: Student Virtual Advising Evaluation Survey Data.

Three questions of the student virtual advising evaluation survey provided additional evidence for the second key finding. The second question of the survey asked students are their experiences with different types of advising services (Figure 9).

Figure 9

Student Survey Question 2: Experiences with Different Advising Service Types



Note. Summary of student virtual advising survey responses to the question: *What types of advising have you experienced at this college? Check all that apply.*

Student survey participants (*n*=241) had the option to select up to 6 advising service options. Their responses showed that around 34% (*n*=83) had experienced virtual advising, which does not include phone or email. Further data analysis revealed that nearly half of the participants (n=117) indicated they had experienced two or more types of advising, whereas approximately 33% (n=79) of participants indicated experience with only one type of advising. Close to 31% (n=74) of survey respondents indicated experience with some form of in-person advising, appointment or walk-in. Approximately 18% (n=44) of participants indicated that they had received phone or email advising. The fifth question of the student survey specifically asked participants to identify if they had ever attended a virtual advising meeting (Table 3).

Table 3

Student Survey Question 5: Virtual Advising Engagement

Responses	Frequency (n)	Percentage (%)
Yes	101	42%
No, not my preference	66	27%
No, I do not have the equipment needed (e.g. computer, phone, etc.)	6	3%
I'm not sure	19	8%
No response	49	20%
Total	241	100%

Note. Student virtual advising evaluation survey responses to the question: *Have you ever attended a virtual advising meeting?*

Over 40% (n=101) of participants indicated yes on their survey response whereas 27% (n=66) indicated no because it was not their meeting preference, and another 3% (n=6) said no because they do not have the equipment needed for a virtual meeting. An additional 8% (n=19) of respondents indicated that they were not sure if they have ever attended a virtual advising meeting. Students who answered yes to having ever attended a virtual advising meeting (n=101) were then asked what type of advisor they met with (Table 4).

Table 4

Student Survey Question 6: Advisor Type (N=241)

Advisor Type	Frequency (*n*)	Percentage (%)
Professional academic advising in Advising Center	30	12%
Program Advisor in my program area	35	15%
I'm not sure	21	9%
No response	155	64%
Total	241	100%

Note. Student virtual advising evaluation survey responses to the question: *Did you meet with an advisor in Advising Services or a program advisor in your program area?* Participants were routed to this question if they selected yes as their response to the previous survey question that asked if they had every attended a virtual advising meeting.

Approximately 12% (*n*=30) of participants indicated they met with a professional advisor and 15% (*n*=35) selected that they met with a program advisor. The rate of no response for this question was approximately 64% (n=155) as a result of the survey's design to only display this question if participants answered yes to question 5. Advising personnel were also asked about their experiences and utilization of advising services, including virtual advising, through a separate virtual advising evaluation survey.

Advising Personnel Virtual Advising Evaluation Survey Overview.

The employee survey, developed through the institutional research office using SurveyMonkey, was shared with the director of advising and distributed via email to advising personnel (*n*=111) within the same week that the student virtual advising evaluation surveys were distributed. The email list included the institution's program faculty advisor email group (n=94), college liaisons (n=10), and professional advisors in the advising center (n=7). The employee virtual advising evaluation survey questions (*n*=12) included:

1. Please indicate your role at [research site].

2. What type of advising meeting options do you offer to students?
3. What type of advising do you most prefer?
4. Do you offer virtual advising services through a synchronous or live online meeting platform (i.e., Zoom, Microsoft Teams)?
5. What led to your decision to not offer virtual advising as a service option?
6. What online platforms do you use for virtual meetings?
7. How do students schedule virtual advising meetings with you?
8. What resources and knowledge do you believe are needed for advisors to conduct virtual advising meetings?
9. What resources and knowledge do you believe are needed for students to participate in virtual advising meetings?
10. What do you see as the benefits of providing virtual advising services as compared to other advising service options?
11. What do you see as the challenges to providing virtual advising services as compared to other advising service options?
12. How do you, or how would you, measure the efficacy of virtual advising as compared to other advising service options?

The survey received an overall response rate of 38% (*n*=42). The first question of the survey asked participants to indicate their role at the college (Table 5).

Table 5

Employee Survey Question 1: Advising Role at Research Site.

Advising Role	Frequency	Percentage
Professional Advisor	8	19%
Program Advisor	31	74%
College Liaison	3	7%
Total	42	100%

Note. Advising personnel responses to the prompt: *Please indicate your role at [research site].*

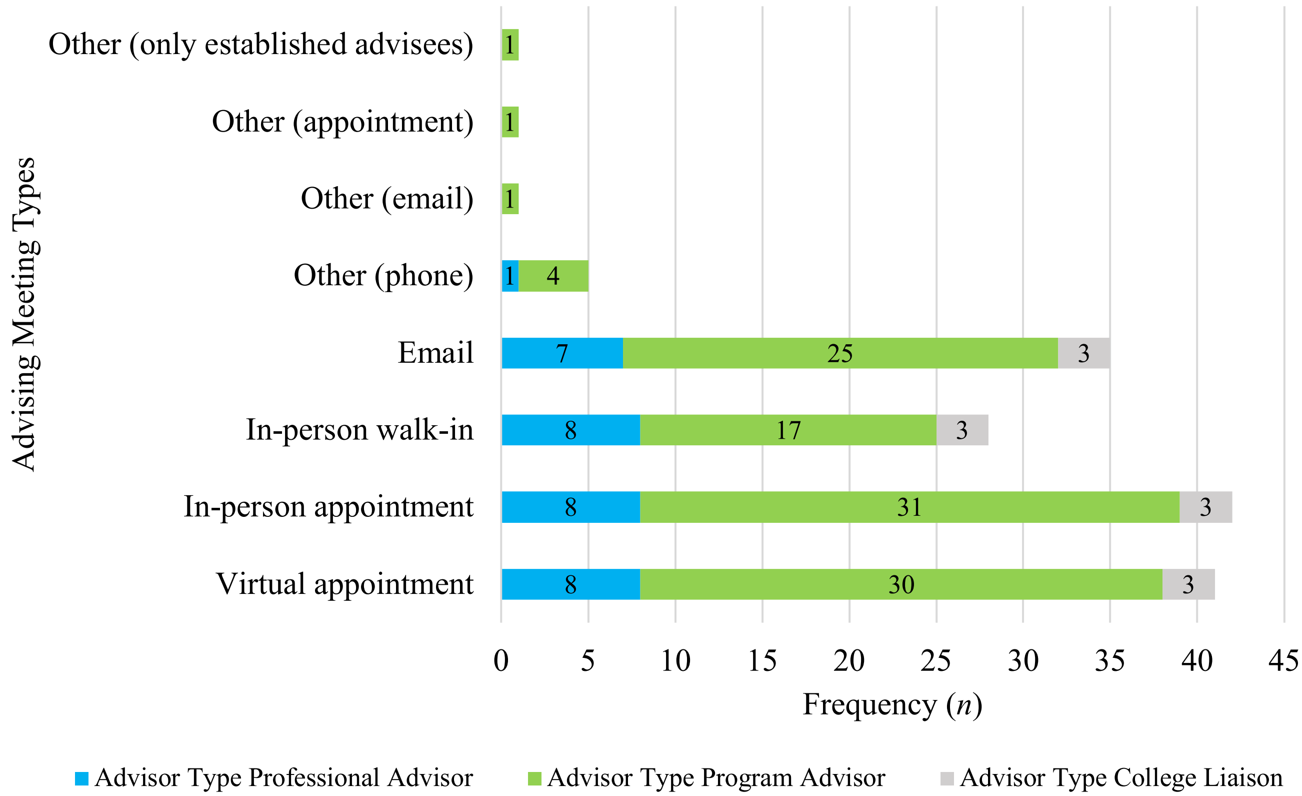
Of the total response rate, 74% (*n*=31) indicated they were a faculty program advisor, 19% (*n*=8) indicated they were a professional advisor, and 7% (*n*=3) indicated they were a college liaison. After indicating their advising role at the research site, participants were asked a series of questions, four of which provided supporting evidence for the second key finding.

Key Finding 2 Evidence: Advising Personnel Virtual Advising Survey Data.

The second question of the employee survey asked participants to indicate what type of advising service options they offer to students (Figure 10).

Figure 10

Employee Survey Question 2: Advising Meeting Options Across Advisor Types



Note. Summary of advising meeting options available to students across advising roles. Responses provided to the question: *What type of advising meeting options do you offer to students?*

Of the service types offered by advising personnel, 98% (*n*=41) indicated that they offered virtual advising appointments. All participants (n=42) indicated that they offered in-person appointments, 67% (*n*=28) indicated that they offered walk-in meetings, and 83% (*n*=35) indicated that they offered email advising. The fourth question of the employee survey specifically asked participants to indicate if they offer virtual advising through a synchronous or live online meeting platform (Table 6).

Table 6

Employee Survey Question 4: Synchronous Virtual Advising

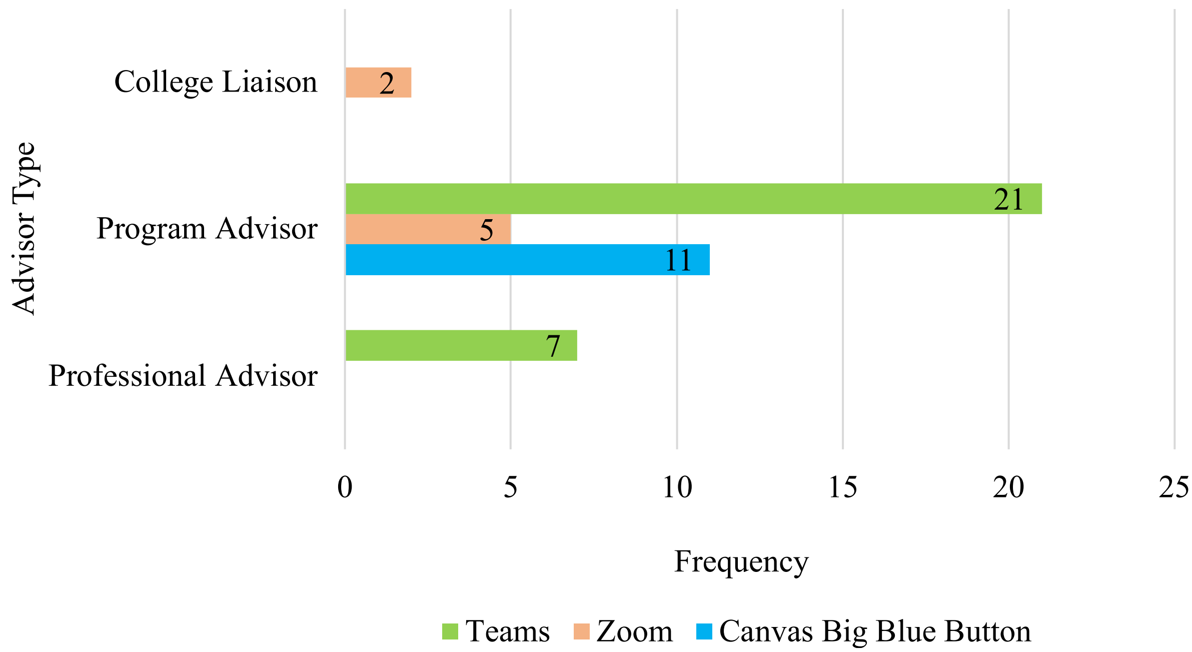
Response	Frequency (*n*)	Percentage (%)
Yes	41	98%
No	1	2%
Total	42	100%

Note. Summary of employee responses to the question: *Do you offer virtual advising services through a synchronous or live online meeting platform (i.e., Zoom, Microsoft Teams)?*

The majority of respondents (*n*=41) indicated that they do offer virtual advising through a synchronous online platform. One advisor indicated that they did not and elaborated in their response to question five of the employee survey, "I started using phone call appointments during Covid, and it seems to work for lots of students, so I have just continued with it. I didn't realize we could use Teams for advising appointments" (Advisor response to virtual advising evaluation survey question). The program faculty advisor's response to question 5 indicated a lack of awareness about virtual meeting options available at the evaluation site. For those who did indicate use of virtual advising, further context was provided in their responses to the sixth survey question that asked what kind of virtual platform was used to meet with students (Figure 11).

Figure 11

Employee Survey Question 6: Online Platforms Used for Virtual Advising



Note. Summary of advisor feedback to the question: *What online platform do you use for virtual meetings?*

Among their responses, professional advisors (*n*=7) indicated use of Microsoft Bookings which aligned with their transition to this appointment scheduling platform at the end of the fall 2023 semester. The college liaisons (*n*=2) noted their use of Zoom for online meetings, and program advisors indicated a mix of meetings options, including a tool available in the institution's learning management system, Canvas (*n*=11). The following survey question then asked: *How do students schedule virtual advising meetings with you?*

Participant responses ranged from Microsoft Bookings (*n*=5), YouCanBookMe (*n*=4), or contact via email (*n*=16). Although no feedback was provided by the college liaisons, professional advisor respondents (*n*=5) noted an appointment scheduling platform, Microsoft Bookings, as the manner in which students could schedule virtual meetings. Most of the program advisor respondents (n=16) indicated that students could schedule virtual meetings with them through email contact. Responses to this question indicated that the response provided was at least in part dependent upon the advisor's interpretation of the prompt. For example, professional advisors answered Microsoft Bookings without mention of being able to access their appointment pages through the advising center webpage. Conversely, several program advisors referenced email contact as a means of scheduling without elaborating further about how students compare availability and confirm their meeting beyond initial contact.

Key Finding 2: Challenges and Opportunities.

Altogether, advising utilization data, including contextual considerations and limitations, reveal both challenges and opportunities to providing virtual advising services in a dynamic and complex environment. As evidence to the first key finding revealed, students prefer virtual advising as an easy and convenient service option, but a clear challenge is the varied availability of that service throughout the year, particularly the restricted virtual appointment availability when advising center activity peaks. Layered with this is the structural design of virtual meetings that determine how soon or far in advance students can schedule and the appointment length. Even with efforts to the balance quality of advising with quantity in its appointment scheduling design challenges still occurred for reasons such as appointment slots filling during busier advising periods.

The organizational structure of a split advising model comprised of professional advisors, program faculty advisors, and college liaisons also creates a dynamic and complex system, as noted in the second key finding. In this structure, students must first understand what advising group they belong to and then identify contact information and meeting request options. This can pose a challenge given the inconsistent virtual meeting platforms and appointment scheduling processes used by advisors. For example, some participants indicated that their appointment scheduling information was included in their email signatures or that students would have to contact them to request a meeting (Employee survey feedback).

Despite these challenges, the second key finding also points to opportunities to enhance advising utilization. Establishing data collection processes provides an opportunity to analyze advising utilization trends that inform future decisions about service options, availability, and ways to provide proactive and clear connections to those services. Identifying data gaps also creates an opportunity to learn where pertinent information is missing that could inform advising structure, services, and best practices. In addition to student and advisor survey feedback, evidence collected through the evaluation workshops and virtual meeting with the primary stakeholder group contributed to a third key finding: *Stakeholders' knowledge and perceptions influence their engagement in evaluation processes.*

Key Finding 3: Stakeholders' Knowledge and Perceptions Influence Evaluation Engagement

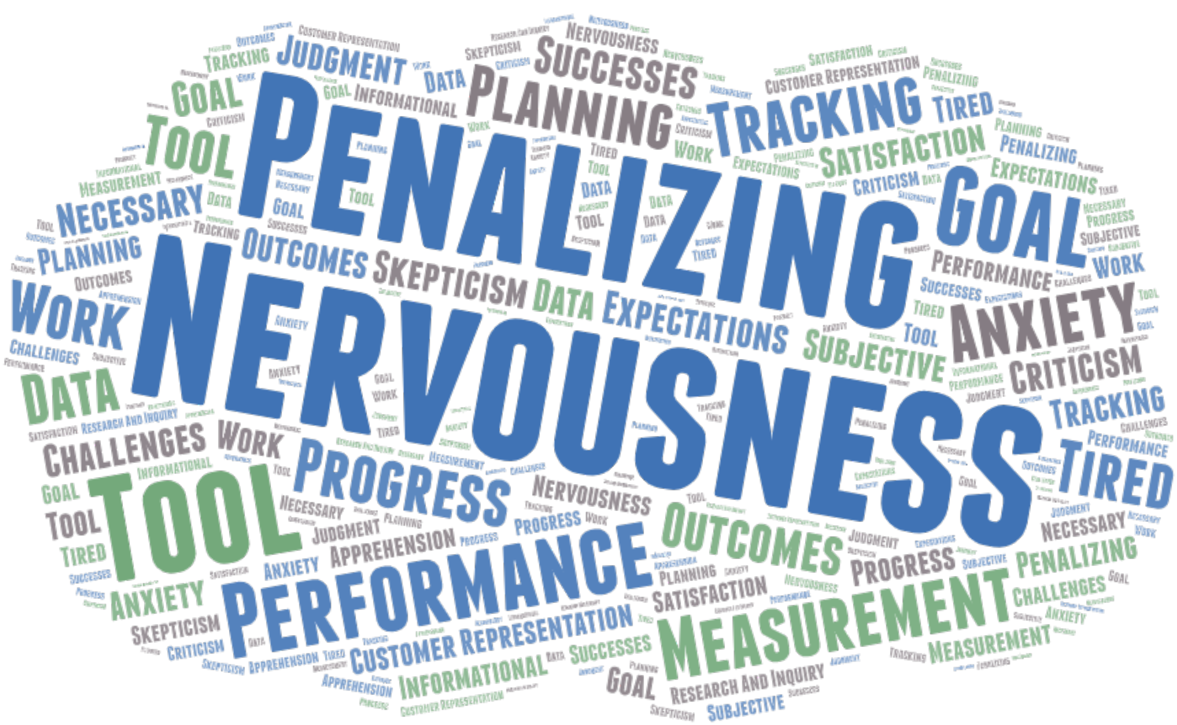
As introduced in Chapter 3 as part of the first step in the U-FE process, two half-day workshops were conducted during December 2023 to launch the evaluation with primary stakeholder participants (*n*=11). The feedback gathered through the workshop activities revealed a third key finding in connection with the second research question: *What are the perceived challenges and opportunities experienced by professional advisors at a North Carolina community college when providing virtual services?*

Key Finding 3 Evidence: Evaluation Workshops and Virtual Meeting.

The first two activities introduced in the evaluation workshops indicated how perceptions of evaluation may support or hinder overall evaluation efforts, thus creating challenges and opportunities that address the second research question. Utilizing guidance from the U-FE process, the first activity titled *Defining Evaluation*, allowed the group to talk through positive and negative perceptions of evaluation thus setting the stage to move toward a shared positive vision of this process. Figure 12 depicts the words used to describe primary stakeholders' thoughts and feelings about the term 'evaluation'.

Figure 12

Workshop Activity: Words and Feelings About Evaluation



Note. Summary of codes that emerged from the initial evaluation workshop.

Participant responses showed initial perceptions of the word evaluation as penalizing, critical, judgmental, tiring, and creating feelings such as nervousness, anxiety, and skepticism. At the same time, some comments noted evaluation as informational, a tool for performance and accountability, or way to support planning and tracking processes. To build upon positive perceptions of evaluation, the second activity tasked primary stakeholders with envisioning what a successful evaluation would look like (Figure 13).

Figure 13

Workshop Activity: Moving Toward Positive Evaluation Vision

Note. Summary of how participants described a successful and useful evaluation process.

Aligning with U-FE premises, the primary stakeholders felt that a successful evaluation would be a collaborative process, involving multiple stakeholders, gathering different points of data, and lead to actual and ongoing use. The first two activities of the evaluation workshops were essential to facilitate reflection and collaboration about broad perceptions of evaluation and identify aspects of evaluation that have positive meaning and use. Following these discussions, the primary stakeholders transitioned to an overview of the U-FE process as a way to connect broad evaluation perspectives to this specific approach. The following activity aligned with steps one and four of U-FE by engaging the primary stakeholders in a field analysis.

Evaluation Workshop Activity: Field Analysis.

The field analysis activity helped the evaluator understand situational factors relevant to the evaluation as discussed in step four, and assess incentives and barriers noted in step one of U-FE. Primary stakeholders' (*n*=11) individual responses to this activity were compiled and organized respective to each of ten prompts. Their feedback provided relevant and meaningful context about advising at the research site. The following sections provide a summary of responses to each prompt.

Field Analysis Question 1: History of Academic Advising and Changes Over Time.

The first question of the field analysis asked: *What is the history of academic advising at [research site]? How has academic advising here changed over time?* Responses to the first field analysis question were compiled in a spreadsheet and color-coded according to recurrent and similar data. This process revealed three themes: 1) longevity at the research site impacted historical knowledge, 2) advising at the research site is viewed as a dichotomy between pre- and post-pandemic, and 3) advising has improved over time.

It was evident from the responses that the amount of historical context provided about academic advising at the research site hinged on how long the participant had been with the institution, pointing to the first theme. For example, one participant stated:

> When I first came to [research site] in 2013 the college was in the process of building a new centralized advising office with a staff of full-time professional advisors. Prior to that the college hired faculty advisors on a part-time contract to advise new students during peak advising periods. Some full-time faculty and staff also participated in this piecemeal advising process. Students were then assigned to full-time program advisors

> with the idea that those advisors would continue to serve them in that advising capacity until they were ready to graduate (Participant feedback for U-FE workshop).

This participant was able to elaborate in detail about their experience with the evolution of advising at the research site including shifting aspects of their role, former teaching requirements for a one-credit hour college transfer success course, and facilitation of new student orientation activities. Conversely, another participant said, “Since I’ve only been at [research site] for about a year, for me advising hasn’t changed much” (Participant feedback for U-FE workshop).

Four participants referenced advising in some capacity tied to the COVID-19 global pandemic, relating to the second theme that advising is viewed as a pre- and post-pandemic dichotomy. One participant indicated a shift in advising following the institution’s move to a meta-major pathway model prior to the pandemic that resulted in broadened support for both for-credit curriculum and continuing education programs (Participant feedback for U-FE workshop). Three other responses referenced transitions following the onset of the pandemic such as the switch from in-person only advising to the addition of features including alphabetized advising assignments, appointment scheduling technology, and meeting options through Zoom and later Microsoft Teams (Participant feedback for U-FE workshop).

Woven throughout the responses, there were signs of advising improvements over time, connecting to theme three. A reduction in long wait times was cited twice along with several mentions of added service hours and options that included appointments, emails, phone calls, and virtual meetings (Participant feedback for U-FE workshop).

Field Analysis Question 2: History of Virtual Advising and Changes Over Time.

The second question of the field analysis asked primary stakeholders to describe the history of virtual advising at the research site and elaborate on how virtual advising has changed over time. Despite longevity of service at the research site, multiple participants viewed virtual advising as a relatively new service, establishing a foothold following the onset of the COVID-19 pandemic. As one participant stated, virtual advising was "nonexistent before COVID-19 aside from email" (Participant feedback for U-FE workshop). Email communication was cited as one of the only virtual advising tools previously used followed by phone calls. Another participant said:

Virtual advising was not an option for students until we experienced the impact of COVID-19. Due to what occurred and the limitations with in person services, we were not prepared for virtual advising until the proper technology and access to the technology were provided by the college (Participant feedback for U-FE workshop).

A third participant wrote:

> During the pandemic the college had to undergo a major shift in order to offer online advising. To do so we advised via email, via phone, and via Microsoft Teams. Some program advisors advised students via zoom, but early concerns about the security of that platform prevented the college from embracing it, and all professional advisors were required to use Teams. We have continued to offer online advising through Teams, and it has been a great resource for students who might otherwise struggle to get to the college. Some advisors will also meet with students by phone if they lack the technical skills needed to use Teams effectively (Participant feedback for U-FE workshop).

Field Analysis Question 3: Primary Goals of Academic Advising and Virtual Advising.

The third question in the field analysis asked primary stakeholders to reflect on what the current primary goals related to advising are at the research site and what goals, if any, are connected to virtual advising. The overall feedback highlighted two ways in which participants chose to respond: procedural support tasks and global metrics of student success.

Several responses described the goals of advising in terms of procedural support tasks such as helping students with applications, registration, connecting to campus resources, choosing the right courses based on their university transfer goals, and ensuring students are comfortable and ready for classes (Participant feedback for U-FE workshop).

Numerous responses also referenced commonly cited global metrics of student success. Examples included statements related to improving student success as well as increasing enrollment, retention rates, persistence, degree completion, and students’ engagement and sense of belonging (Participant feedback for U-FE workshop).

Field Analysis Question 4: Strategies Utilized to Achieve Goals Advising Goals.

The fourth question of the field analysis asked primary stakeholders to write what strategies were being utilized to help achieve the goals of academic advising and, if any, virtual advising. Overall, the responses emphasized strategies from two areas: employee engagement and student engagement.

Employee engagement related to professional development, coaching provided through an external organization, and annual performance evaluations (Participant feedback for U-FE workshop). One response also noted evolving plans amongst current advising leadership to review the site’s advising model and services, including virtual advising (Participant feedback for U-FE workshop). Another response indicated no standard expectations have been defined since the pandemic to define academic advising goals (Participant feedback for U-FE workshop).

Student engagement was emphasized through feedback pertaining to the distribution of the student satisfaction survey, flexibility in meeting options, and requirements aimed at strengthening students' relationships with advising (Participant feedback for U-FE workshop). As one participant said:

> We continue to require that students meet with an advisor every semester before they are eligible to register. This process makes it more difficult for students to slip through the cracks, although there are varying levels of commitment and buy-in for the advising process among program advisors. To strengthen students' relationship to the college and to advising in general, the college uses the ACA 122 class to relay positive messaging about the importance of academic and career planning and advising in general (Participant feedback for U-FE workshop).

Field Analysis Question 5: Past Evaluations of Academic Advising.

The fifth question of the field analysis inquired about what evaluations of academic advising had taken place at the research site in the past, including virtual advising. It became evident through the responses that general knowledge of past evaluations was limited.

Statements using words such as unsure, none, and not aware were recurrent in the feedback (Participant feedback for U-FE workshop). Any mention of evaluation was primarily related to advisors' individual annual performance reviews and student satisfaction surveys (Participant feedback for U-FE workshop). One participant indicated tracking of advising notes that documented students' career, university, and major goals as part of a previous Quality Enhancement Plan but shared this was no longer actively managed given the manual nature of the task (Participant feedback for U-FE workshop). Another participant wrote: "To my knowledge there has not been a specific evaluation related to virtual advising" (Participant feedback for U-FE workshop).

Field Analysis Question 6: Current Evaluation Processes and Uses for Advising.

The sixth question of the field analysis asked if there were any current evaluation processes in place for academic advising and, if so, how were they used and whether any of it related to virtual advising. Most responses pointed to student survey feedback and annual performance evaluations as current processes. One participant stated:

> The only evaluation has been student surveys providing feedback based on their advising session with an advisor. We do not evaluate the faculty advisors once students have been assigned a faculty advisor (Participant feedback for U-FE workshop).

Field Analysis Question 7: Capacity of Research Site to Engage in Evaluation.

Question seven of the field analysis asked participants about the capacity of the research site to engage in an evaluation, noting examples such as staff, budget, information systems, culture, and data management. Budget constraints, leveraging existing resources, and organizational politics captured the essence of participants' responses.

Several participants noted their perception that financial resources to support an evaluation were limited (Participant feedback for U-FE workshop). Another participant wrote: "Sometimes it seems that we lack the ability to efficiently and accurately capture data through the systems that we have or store it when we have it" (Participant feedback for U-FE workshop). Other comments related to institutional systems and resources suggested use of survey tools, Microsoft Teams, appointment scheduling, and the institutional research office as a means for engaging in evaluation (Participant feedback for U-FE workshop).

Additional feedback connected organizational politics to evaluation capacity. Whereas one participant felt that the research site was well positioned in relation to capacity for evaluation engagement, two others referenced organizational politics as a concern including potential resentment among faculty if evaluating advising on an individual level (Participant feedback for U-FE workshop). Another statement read: “Leadership strongly supports evaluation, but I am not sure that all lower-level stakeholders are as eager to engage with the evaluation process” (Participant feedback for U-FE workshop).

Field Analysis Question 8: Positive Forces That Support Evaluation.

Question 8 of this activity prompted primary stakeholders to consider what factors were likely to be positive forces supporting the evaluation and use of its findings. Their feedback is summarized in terms of learning and improvement. Learning refers to comments that described evaluation as a way to reveal the impact of advising on retention and enrollment or confirm if virtual advising is a wanted service for students (Participant feedback for U-FE workshop). One participant noted that an evaluation could help advisors learn about students’ feelings related to their experiences with advisors (Participant feedback for U-FE workshop).

Improvement refers to feedback that viewed evaluations as a way to make data-informed decisions about advising practices, increasing productivity of advising, improving advising techniques, and modifying services (Participant feedback for U-FE workshop). As one participant stated, evaluation:

> Helps establish a baseline of data and then allows for continuous improvements that will lead to the success of students and then how the college positions itself to further support employee’s growth and potential while highlighting what they are doing well. Providing

an evaluation will guide the work of the college and the practice of advising (Participant feedback for U-FE workshop).

Field Analysis Question 9: Resistance or Barriers to Evaluation.

Question 9 of the field analysis asked what factors are likely to create resistance or barriers to the evaluation and use of its findings. Responses echoed feedback from question 7 such as funding concerns (Participant feedback for U-FE workshop). However, the majority of comments cited concern about possible negative implications for employees. These comments referenced employee compliance, lack of interest or resistance, deficit-minded approaches, and time constraints that could inhibit the evaluation as it relates to employee engagement (Participant feedback for U-FE workshop). One participant noted that a potential risk is program faculty advisors feeling judged in regard to advising workload (Participant feedback for U-FE workshop). Another participant felt that faculty advisors could be resistant to participate as they viewed advising as a secondary part of their role (Participant feedback for U-FE workshop).

Field Analysis Question 10: How Positive Forces May Minimize Negative Ones.

The final question of the field analysis asked primary stakeholders how positive forces could minimize potential negative forces. Overall feedback referenced the importance of engaging a variety of stakeholders and connecting the evaluation in a meaningful way to their role within the college. Examples of primary stakeholders' perceptions included:

- Keep it collaborative.
- Discuss ways this can improve advising and keep others invested.
- Help faculty advisors see the usefulness of the info to them.
- Employees have a better understanding of the work that is expected from them.

- Using staff, faculty, and student input and less state or system input would minimize negativity because every perspective is considered.
- Those in non-leadership roles being given some ownership over the process. This can generate buy-in among peers and can help identify key information that needs to be gathered.

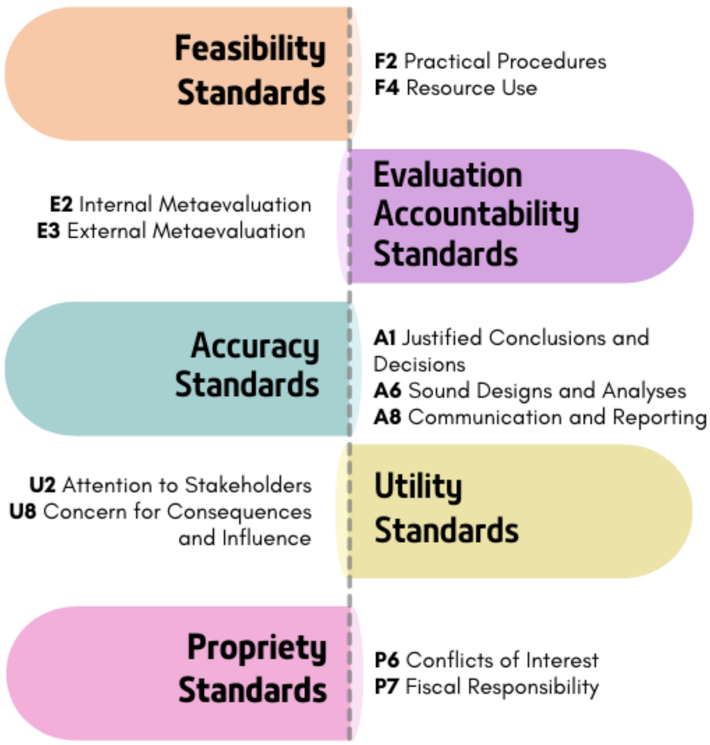
The field analysis helped the evaluator address important tasks in the U-FE process such as assessing incentives and barriers to implementing an evaluation, and actively engaging primary stakeholders in sharing their knowledge of advising at the research site. The subsequent workshop activities followed a semi-structured interview process where key feedback was compiled in a summative document for a follow-up advising meeting.

A virtual advising meeting was hosted at the end of January 2024 during a regularly scheduled meeting time for the advising center. All primary stakeholders were invited to attend. This meeting bridged the feedback from each workshop group with the purpose of finalizing primary stakeholders' objectives and data collection methods for the evaluation to move forward. The evaluator developed a summative report of key workshop feedback and included two activities to formalize the evaluation data collection methods. This report was uploaded in the director of advising's OneDrive and shared with the primary stakeholders. This allowed participants to access and edit the document simultaneously.

In the summative portion of the document, the evaluator indicated the professional standards for practice developed by the Joint Committee on Standards for Education Evaluation (2018) that the primary stakeholders emphasized during the workshops (Figure 14).

Figure 14

Program Evaluation Standards | U-FE Step 1



Note: Primary stakeholders identified key evaluation standards. Adapted from Joint Committee on Standards for Educational Evaluation. (2018). Checklist of the program evaluation standards statements. https://wmich.edu/evaluation/checklists

Feasibility, accountability, accuracy, utility, and propriety standards were emphasized by the group to guide evaluation questions and data collection methods. These standards built upon earlier workshop discussions about what would constitute a successful evaluation. In addition to professional standards, the primary purposes identified by participants during the workshops were reviewed. Stakeholders felt that *knowledge generation* and *learning* were both integral to evaluating virtual advising.

Following a review of professional standards and the group's primary evaluation purpose, they transitioned to two collaborative activities. The first activity provided the compiled list of preliminary evaluation questions generated during the evaluation workshops as part of an activity titled *Focusing Priority Evaluation Questions*. The objective of this activity was for primary stakeholders to determine questions they wanted to answer through the evaluation of virtual advising. These were separate from the research questions guiding this study as it was important to ensure the primary stakeholders identified questions that had their own meaning and value.

In the shared document, a standard black font was applied to the list of preliminary questions so that participants could enter comments in different colors of their choosing. This allowed the evaluator to differentiate comments from different participants while still maintaining confidentiality. Figure 15 provides an example of what this process looked like.

Figure 15

Refining Primary Stakeholder Evaluation Questions

2. Are our advising strategies the same across advising service modalities? Yes and No. Yes in sense that we provide the same basic services regardless of modality using essentially the same info and techniques. No in some cases. For example we see walk – in students often knowing nothing about them or where the conversation will go. With remote we usually have time to prepare at least somewhat for the upcoming conversation, we can collect some info upfront which can make these meetings more efficient.

Note. Participant feedback in blue font was entered by a participant in response to an evaluation activity during the virtual advising meeting.

Through this semi-structured approach, participants were able to brainstorm thoughts while also engaging in a dialogue aimed at refining their evaluation questions. Upon completion, primary stakeholders generated six evaluation questions to be answered through data collection:

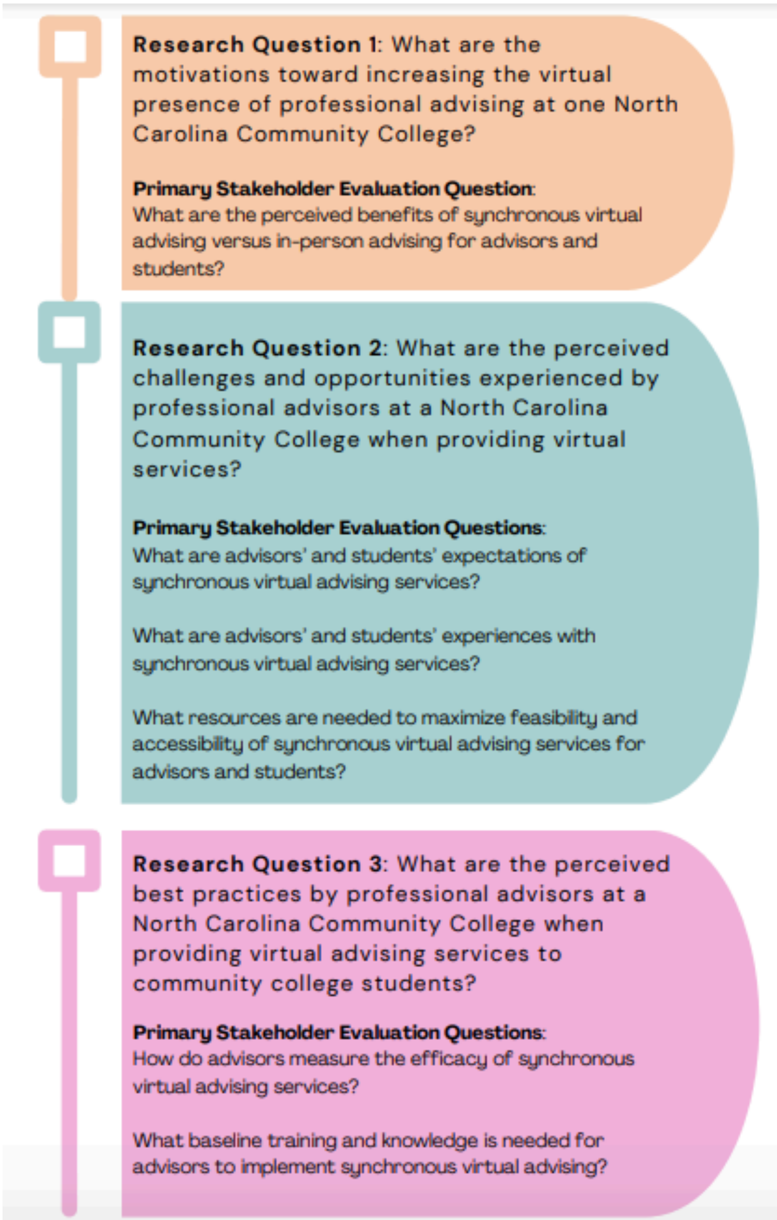
1. What are advisors and students' expectations of synchronous virtual advising services?
2. What are advisors and students' experiences with synchronous virtual advising services?
3. What resources are needed to maximize feasibility and accessibility of synchronous virtual advising services for advisors and students?
4. How do advisors measure the efficacy of synchronous virtual advising services?

5. What are the perceived benefits of synchronous virtual advising versus in-person advising for advisors and students?
6. What baseline training and knowledge is needed for advisors to implement synchronous virtual advising?

A natural alignment between the research questions and primary stakeholders' questions helped generate cohesion, clear direction, and mitigate risks such as conflicts of interests, misuse, or negative consequences (Figure 16). The finalized list of evaluation questions allowed participants to transition to the second activity where they identified data collection methods for the evaluation.

Figure 16

Research and Evaluation Question Connections



Note. Connection between research questions and primary stakeholders' evaluation questions.

The final activity, titled *Evaluation Design and Implementation*, followed the same process for the evaluation questions by compiling prior workshop feedback into the shared document and tasking participants with adding notes and comments while engaging in a collaborative conversation to finalize data collection methods.

The three data collection methods introduced in the initial workshops were surveys, focus groups to engage students, and work sessions to engage employees. The group decided that a survey was the most practical way to obtain data from students and employees given possible challenges related to budget, travel, and political factors (Virtual advising meeting stakeholder feedback). As one participant wrote: “An in-person focus group might be challenging, since many students who opt for virtual online advising do so because they aren’t able to come in” (Virtual advising meeting stakeholder feedback).

The primary stakeholders collaborated through the shared document to draft a list of survey questions for students and another for advising personnel. As discussed in Chapter 3, the evaluator conferred with the research site’s IRB Committee Chair to determine appropriate IRB approval steps. An official IRB application was submitted and approved before collaborating with the research site’s director of institutional research to refine and distribute the evaluation surveys.

The collective insights generated through the evaluation workshops and virtual meeting addressed the second research question by demonstrating how primary stakeholders’ institutional knowledge, experiences, and observations provide a vital opportunity to develop meaningful and useful evaluation procedures. This key finding also illuminated the possible challenges that negative perceptions and attitudes toward evaluations can present. By establishing an evaluation of virtual advising that was driven by primary stakeholders and guided by professional standards, the evaluator was able to minimize challenges to the evaluation process and gather valuable feedback from a variety of stakeholders throughout the institution.

Research Question 3: Perceived Best Practices for Providing Virtual Advising

The third research question asked: *What are the perceived best practices by professional advisors at a North Carolina Community College when providing virtual advising services to community college students?* Evidence collected through the student and advisor evaluation surveys generated one key finding in response to this question:

- **Key finding 4**: The optimal virtual advising experience should is accessible, informative, and personal.

Key Finding 4: Virtual Advising as Accessible, Informative, and Personal

The fourth finding of this evaluation is that the optimal virtual advising experience is one that is accessible, informative, and personal. This finding emerged from virtual advising evaluation survey responses to questions about advising preferences and the perceived benefits and challenges to virtual advising.

Key Finding 4 Evidence: Student Virtual Advising Evaluation Survey.

Five questions from the student virtual advising evaluation survey provided supporting evidence to the fourth finding. Table 7 summarizes responses to the third question of the survey that asked participants to indicate what type of advising they most prefer.

Table 7

Student Survey Question 3: Most Preferred Advising Type (N=241)

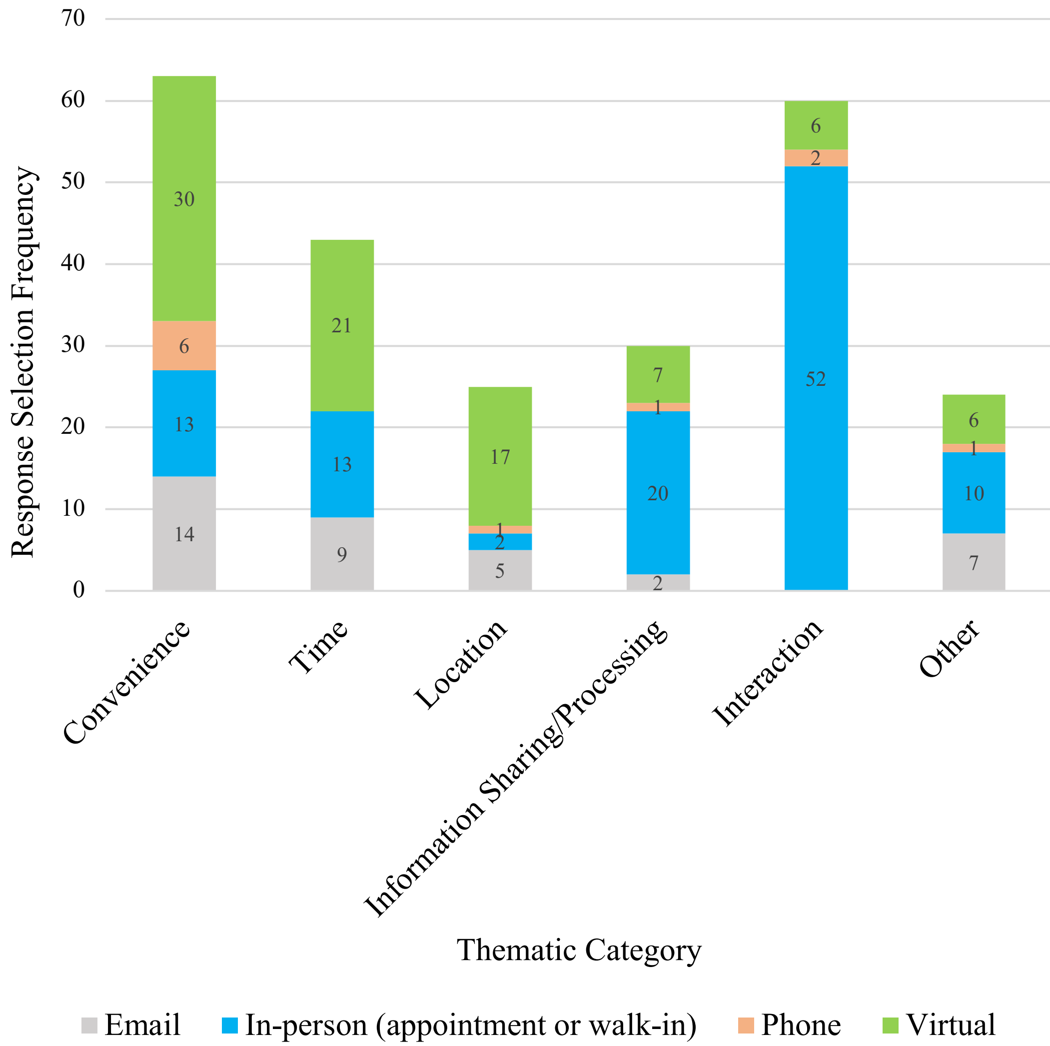
Advising Preference	Frequency (*n*)	Percentage (%)
Email	31	13%
In-person appointments	72	30%
In-person walk-in meetings	16	7%
Phone advising	10	4%
Virtual appointments	66	27%
No Response	46	19%
Total	241	100%

Note. Summary of student virtual advising survey responses to the question: *What type of advising do you most prefer?*

Among responses, in-person appointments (30%) and virtual appointments (27%) were closely ranked, whereas responses to the advising center's student satisfaction survey rated virtual advising as the most preferred meeting option. Question four of the student virtual advising survey asked participants to elaborate and share why they preferred the selected service option over others. Figure 17 shows the thematic trends that emerged by organizing and quantifying recurrent words and concepts through Excel.

Figure 17

Student Survey Question 4: Reason for Preferred Advising Type (N=178)



Note. Thematic summary of student survey responses related to the question: *Why do you prefer this type of advising over other options?*

Nearly half (*n*=30) of all comments related to convenience were in reference to virtual advising. Factors such as time (*n*=21) and location (*n*=17) were also frequently cited in favor of virtual advising. One student said for virtual appointments: “The setup is really easy and simple and I still get to see my advisors face-to-face. I also love it when I know what I need help with is an easy fix and the call can be really quick" (Student survey evaluation feedback). Another participant said: "I am located out-of-state and therefore I am not able to do in-person appointments. I prefer virtual appointments because I find it most engaging and efficient to have a live discussion" (Student survey evaluation feedback). A third participant shared: "I'm a hands on learner plus I'm in a wheelchair" (Student survey evaluation feedback).

In-person meetings were preferred most frequently for reasons related to information sharing and processing (*n*=20) and human interaction (*n*=52). For example, one student said:

> I can actually connect with the advisor, and they are able to show me things without me having to go through the trouble of technology. Lastly, I am on campus at times, so I get the meeting out of the way as I am headed to the places I need to go on campus. It's much more convenient than going all the way home just for a meeting. Another thing is, I don't have to worry about the camera or microphone. (Student survey evaluation feedback)

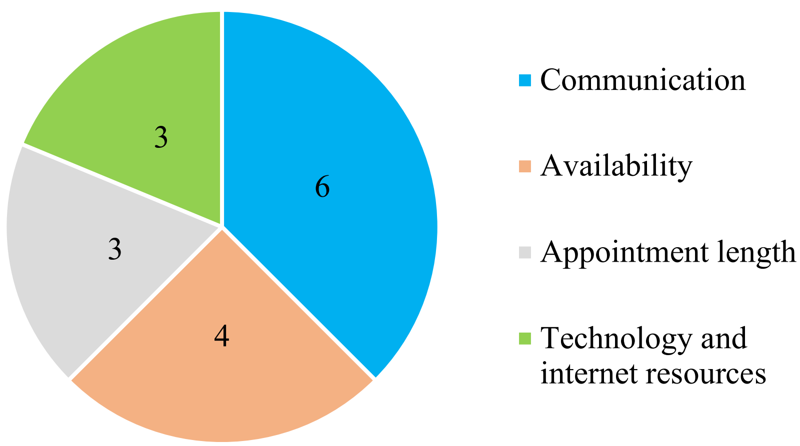
Another student said: "I am a Senior citizen and I am coming back to school after 42 years and things are so different now. Also, I like to meet people and I like hands on experience as opposed to the computer business" (Student survey evaluation feedback). An additional student stated: "I prefer face to face interactions because sometimes there can be miscommunication with emails and I like to see people in person" (Student survey evaluation feedback).

To further understand reasons why students may not like virtual advising, question ten of the student evaluation survey asked: *From your experience, what do you like least about virtual advising as compared to other advising options?* Students provided an array of responses (*n*=72) that were organized into thematic categories via Excel by identifying and quantifying recurrent words and concepts. The top three themes that emerged from this process were technical issues (*n*=10), advising quality (*n*=9), and impersonal feel (*n*=9). Responses related to technical issues referenced internet problems, lagging, unreliability, and slow computer function (Student survey responses). One example is a student that cited issues using the virtual meeting space, specifically noting technical issues with figuring out how to share screens (Student survey responses).

Question 11 of the student survey asked respondents to share what they believe would make virtual advising appointments better and why. Using Excel to identify and quantify responses by recurrent words and concepts revealed communication (*n*=6), availability (*n*=4), appointment length (*n*=3), and technology and internet resources (*n*=3) as the top cited areas for improvement among all responses (*n*=72) to this question (Figure 18).

Figure 18

Student Virtual Advising Survey Question 11: Improving Virtual Advising



Note: Student survey responses to the question: *What do you think would make virtual advising appointments better?*

In students' responses, communication was referenced in relation to tasks like sending follow-up information, timely email responses, and checking in with students. Availability was referenced in relation to offering more appointment times. Appointment length was suggested in relation to adding more time in each meeting (Student survey feedback). Technology and internet resources were referenced in relation to devices, internet connection, and virtual platforms used for engagement (Student survey feedback).

Students' beliefs about what would improve virtual advising connects back to the second key finding that advising service options and utilization are dynamic and complex. For example, increasing the length of appointment meetings may be ideal to some, but could simultaneously reduce the overall number of appointment slots in a given timeframe. Extended appointment hours could incur staffing challenges, especially with advising personnel operating in different capacities and reporting hierarchies across the institution. There is also the uncertainty of whether other areas of the institution would provide extended hours to accommodate students' varied support needs. However, student responses also provide support for key finding four. The suggestions that came from this prompt emphasize the importance of having accessible virtual meeting options where time and communication are high priorities, thus presenting opportunities for advising personnel to strategize ways of incorporating these values into their virtual advising services.

The last question of the student survey asked: *What would your ideal virtual advising meeting look like and why?* The top three themes identified through their feedback referred to the meeting platform and technology used (*n*=12), classes or planning (*n*=6), and mirroring in-person meetings (*n*=4). Of the 65 responses to this question, about 9% (*n*=22) entered an answer of not applicable or not feeling sure about what their ideal virtual advising meeting would look like. Around 5% (*n*=12) of the total survey participants noted preferences about meeting platforms or technology used for virtual advising. Less than 3% (*n*=6) of participants cited support needs with selecting classes and planning for their program. Less than 2% (*n*=4) of participants indicated virtual advising that mirrors aspects of in-person meetings. For example, one participant wrote: “My ideal meeting would be with an advisor and I, we would both have our cameras on, and I would ask any questions I need like we are in-person” (Student survey feedback).

Key Finding 4 Evidence: Employee Virtual Advising Survey.

Additional evidence supporting the fourth key finding stems from six questions in the advisor evaluation survey. The third question of the employee survey asked participants to indicate what type of advising they most preferred (Table 8).

Table 8

Employee Survey Question 3: Advising Preferences

Appointment Type	Advisor Type		
	Professional Advisor	Program Advisor	College Liaison
Virtual appointment	2	7	0
In-person appointment	4	17	3
In-person walk-in	2	1	0
Email	0	5	0
Other (*phone*)	0	1	0

Note. Summary of employee responses to the question: *What type of advising do you most prefer?*

Among advising personnel, 57% (*n*=24) responded that they preferred in-person appointments, followed by virtual appointments at 21% (*n*=9). This shows a clear preference for in-person advising appointments as opposed to student survey responses that were split between in-person and virtual meetings. The following two questions of the advisor evaluation survey provided more insight about advisors’ perceptions regarding virtual advising.

Questions 8 and 9 of the employee surveys asked participants to share what resources and knowledge they believe are needed for advisors and students to participate in virtual advising.

Table 9 thematically summarizes feedback pertaining to knowledge and resources needed by advisors to conduct virtual advising meetings.

Table 9

Employee Survey Question 8: Resources Needed by Advisors for Virtual Advising

Themes	Frequency (*n*)	Percentage (%)
Technology knowledge	18	43%
Advising knowledge	6	14%
Program knowledge	4	10%
Other	14	33%
Total	42	100%

Note. Summary of employee feedback to the question: *What resources and knowledge do you believe are needed for advisors to conduct virtual advising meeting?*

Most of the responses to related to advisors needing knowledge about technology needed for virtual appointments (*n*=18), including the platform used but also technology tools used to access students' information (Employee feedback). The other themes related to advisors' general knowledge of advising students (*n*=6) as well as their understanding of program information (*n*=4).

Question nine of the employee survey asked: *What resources and knowledge do you believe are needed for students to participate in virtual advising meetings?* Similar to question 8, employees' feedback overwhelmingly connected to technology resource needs for students to engage in virtual advising. Technology resources related to students having the ability to access virtual meetings which included having appropriate technology devices and ability to comfortably use technology for virtual engagement (Employee survey feedback).

Question 10 of the employee survey asked advisors: *What do you see as the benefits of providing virtual advising services as compared to other advising service options?* Using Excel to identify and quantify recurrent words and concepts showed that advisors viewed virtual advising as convenient and flexible (*n*=23) and minimizes challenges such as location and travel (*n*=8), particularly for students who have work and childcare considerations (Employee survey feedback). Overall, employee feedback about the benefits of virtual advising echo student sentiments that virtual advising provides a service option that is convenient, easy, works well with students' scheduling needs, and allows them to receive advising support without coming to campus.

Question 11 of the employee survey asked participants: *What do you see as the challenges to providing virtual advising services as compared to other advising service options?* After thematically organizing and quantifying their responses, two themes stood out: technology issues and interaction/engagement. Around 45% (n=19) of participants referenced technology issues through comments about students having the right technology tools, including devices other than a phone and internet connection (Employee survey feedback). Other technology issues pertained to students' preparedness or technical literacy skills (Employee survey feedback). Another 17% (*n*=7) of responses related to interactions and engagement concerns about students attending their appointments, being less engaged and more likely to cancel, and multitasking while in their meeting (Employee survey feedback).

The final question of the employee survey asked: *How do you, or how would you, measure the efficacy of virtual advising as compared to other advising service options?* The responses (*n*=36) indicated a wide variety of suggestions ranging from student survey questions, tracking course registrations, student goal attainment, and measuring persistence (Employee survey feedback). Some advisors did not have an immediate response to this prompt and provided comments such as "unsure" (Employee survey feedback). Another comment arguably captured a key summary of the total responses: "Hard to say—I think it is hard to measure this"

(Employee survey feedback). Measuring the efficacy of virtual advising is dependent upon what metrics of impact and success can be directly linked to this service. This presents a challenge as many measures of student success can be attributed to several factors. However, it also illuminates the need for agreed upon methods to monitor and assess the impact of virtual advising.

The wealth of feedback provided by students and advisors supports the fourth key finding that the optimal virtual advising experience should be accessible, informative, and personal. Evidenced repeatedly through student and advisor responses were perceptions that virtual advising is convenient and flexible; works well with students' varied scheduling needs; and mitigates challenges pertaining to travel, distance, work, and childcare (Student and employee survey feedback about virtual advising). Student and employee survey responses also revealed that virtual advising is challenging and less desired when there are technical challenges or barriers; and, when advising quality is compromised because meetings feel less personal as a result of multitasking, lack of engagement, or cameras being turned off (Student and employee survey feedback). Additional advisor feedback emphasized the importance of digital resource access and literacy to effectively participate in virtual advising (Employee survey feedback).

The fourth key finding helps respond to the last research question: *What are the perceived best practices by professional advisors at a North Carolina Community College when providing virtual advising services to community college students?* Survey feedback shows that virtual advising is an effective service when participants are actively engaged in the meeting, can see one another, and have the appropriate technology resources to facilitate the meeting. This evidence suggests that advising practitioners and leaders should have clearly defined expectations for employees and students when interacting in a virtual meeting space. This may include recommendations to join meetings in a location with secured internet access and minimal distractions; having a device with camera access and having the camera turned on during the meeting; and being prepared to relay pertinent questions, information and support. Advising stakeholders should also develop virtual advising scheduling that provides convenience without sacrificing quality standards. Lastly, advising stakeholders should determine measures of efficacy for virtual advising across all advising personnel and consistently assess those measures for ongoing service improvement.

Conclusion

Chapter 4 provided an in-depth analysis of evaluation findings that emerged from advising utilization data, primary stakeholder workshops and virtual meetings, and student and employee survey responses about their experiences with virtual advising. Data analysis of the results provided four key findings that answered this study's research questions and provided guidance on implications for policy and practice and recommendations for future research discussed in Chapter 5.

SUMMARY

This study relied upon the utilization-focused evaluation framework as the methodology to answer one overarching research question and three sub-questions: *What are the recommendations to attain a streamlined organizational structure for evaluating virtual academic advising services at one North Carolina community college based upon a utilization-focused evaluation?*

A subset of three questions helped inform the evaluation findings:

1. What are the motivations towards increasing the virtual presence of professional advising at one North Carolina community college?
2. What are the perceived challenges and opportunities experienced by professional advisors at a North Carolina Community College when providing virtual services?
3. What are the perceived best practices by professional advisors at a North Carolina Community College when providing virtual advising services to community college students?

The purpose of this study was to conduct a utilization-focused evaluation of synchronous virtual advising services in a North Carolina Community College. The research questions of this study emphasized the integral role of professional advisors and their impact on measures of student success, including academic and social integration (Chiteng Kot, 2014; King, 1993; Tinto, 2012). However, this study recognized that advising was supported through a network of institutional stakeholders therefore making their insights essential to answering the research questions. Academic advising requires the utilization of a multifaceted approach to support a diverse student population (Drake et al., 2013; He & Hutson, 2016). Community college academic advisors are considered key stakeholders who can have a significant impact on student outcomes, particularly since many academic systems were launched into a period of restructure and increased virtual engagement as a result of the onset of the COVID-19 global pandemic. Higher education professionals can contribute to an inclusive approach to synchronous virtual advising that is more human-centered (O'Banion, 1971).

North Carolina community colleges are in recovery mode since the COVID-19 pandemic (NC Community Colleges, 2022), and conceptualizing opportunities to leverage the virtual landscape to sustain advising services is necessary. This study is evidence of what previous research has discovered and affirms that continuous evaluation and improvement of student engagement is essential (Otto, 2022). The body of research that elaborates upon the various tools and techniques that have digitized advising primarily focuses on asynchronous virtual advising or presents advising as it occurs at four-year institutions. The findings from this study contribute to the literature by offering a way to capture service utilization and experiences through a utilization-focused evaluation (U-FE) of synchronous virtual advising services at a community college.

Summary of Key Findings

The overarching research question was answered through the identification of recommendations for policy and practice which is included in this chapter. Four key findings were identified through the data collected in this utilization-focused evaluation (U-FE) and answered the three secondary research questions guiding this study. A summary of these four findings are summarized according to each sub-question below.

Research Question 1: Motivations Towards Increasing Virtual Advising

One key finding provided answers supporting the motivations to increase the virtual presence of professional advising at one North Carolina community college: Students prefer virtual advising because it is easy and convenient.

Key Finding One: Students Prefer Virtual Advising Because of Ease and Convenience.

The first key finding was that students have a preference to use virtual advising because it was convenient, easy to access, and minimized time and travel constraints (Student survey feedback). As one student wrote:

> I am located out-of-state and therefore I am not able to do in-person appointments. I prefer virtual appointments because I find it most engaging and efficient to have a live discussion (Student survey comment).

Other students shared that childcare, work, accessibility needs, and transportation limitations made virtual advising an option that best fit their needs (Study survey feedback). Employee feedback reiterated that convenience and flexibility were positive aspects of virtual advising and that virtual advising helped to mitigate barriers to accessing advising including scheduling, travel, work, and childcare (Employee survey feedback). Investigating virtual advising from another angle, research sub-question 2 identified challenges and opportunities of virtual advising.

Research Question 2: Challenges and Opportunities of Virtual Advising

Two key findings provided insight about the challenges and opportunities of virtual advising experienced by advisors at a North Carolina Community College:

- **Key finding 2**: Advising service options and utilization are dynamic and complex.

- **Key finding 3**: Stakeholders' knowledge and perceptions influence their engagement in the evaluation process.

Key Finding 2: Advising Service Options and Utilization are Dynamic and Complex.

The second key finding emerged from sources including advising utilization data, student and employee advising survey responses, and feedback gathered through the evaluation workshops. Although survey data revealed that many students had a preference for virtual advising, the availability of this service varies by time of year as well as advising groups. Observations of the advising center's resources and operational structure showed that the design of appointments, including virtual, set parameters around scheduling which also impacted virtual advising access and use. The split advising organizational structure at the research site also informs this finding as different advising groups use multiple virtual meetings platforms and do not have consistent standards for virtual advising scheduling and access. Despite the dynamic and complex nature of advising, opportunities also emerged through this evidence that primarily supported identifying missing data points and establishing consistent and ongoing data collection to assess virtual advising and other service options.

Key Finding 3: Stakeholders' Knowledge and Perceptions Influence Evaluation Engagement.

Workshop activities that engaged primary stakeholders at the onset of the evaluation elicited both challenges and opportunities of virtual advising, as summarized by the third key finding that stakeholders' knowledge and perceptions influence evaluation engagement. Through semi-structured conversations with primary stakeholders during the evaluation workshops, feedback was given about initial perceptions of evaluation. Negative perceptions that view evaluations as judgmental or penalizing and feelings related to anxiety or skepticism risked hindering the evaluation process and what it revealed about virtual advising. However, collaborative space to dissuade negative perceptions and establish a shared positive view of evaluation allowed primary stakeholders to determine what a successful evaluation would look like, thereby creating opportunities to successfully evaluate virtual advising. Gathering a variety of data points from multiple stakeholders and ensuring that the evaluation would lead to actual use were among the priorities established by the primary stakeholders.

Additionally, a field analysis activity completed by the primary stakeholders at the beginning of the evaluation process illuminated important historical and political context about the evolution of advising at the evaluation site. Collectively, their responses to the field analysis demonstrated that organizational history and politics could impact the evaluation process and results. This feedback introduced possible challenges to the evaluation and, by extension, virtual advising by revealing the potential for advising stakeholders to feel defensive about evaluation measures. The feedback also created opportunities to reinforce the evaluation and participants' engagement by helping to strategically frame and implement the evaluation with organizational factors in mind.

Research Question 3: Perceived Best Practices for Virtual Advising

The final research question asked: *What are the perceived best practices by professional advisors at a North Carolina Community College when providing virtual advising services to community college students?* One key finding formed through supporting evidence: The optimal virtual advising experience should be accessible, informative, and personal.

Key Finding 4: The Optimal Virtual Advising Experience Should Be Accessible, Informative, and Personal.

The fourth key finding captures essential aspects of the optimal virtual advising experience. This finding developed through interlinked data stemming from student and employee survey responses.

Student and advisor feedback aligned with regard to perceptions that virtual advising provides a convenient service option. However, comments also showed that virtual advising should facilitate aspects of in-person interactions to promote more engaging and personal support, aligning with prior literary sources (Gaines, 2014; O'Banion, 1971). These practices should include camera use and live discussions through synchronous meetings. One student said, "If advisors used video because it makes it more personal" (Student survey feedback). Another student wrote, "I think it would look the same as an in-person meeting" (Student survey feedback). A third indicated, "My ideal meeting would be with an advisor and I, we would both have our cameras on, and I would ask any questions I need like we are in-person" (Student survey feedback). These practices, when applied to students and advisors, may also address employee concerns about student engagement and multitasking behavior in virtual meetings.

An additional theme that emerged within this finding relates back to the third finding that demonstrated the complexities of advising in an organizational model where there are multiple advising roles operating in similar but distinct capacities and have different reporting channels across the institution. The lack of consistency in how students connect with advising presents a challenge to helping them access virtual service options. As one student said:

> Making the website where we make appointments more accessible and easier to find. I've had to email advisors about where to make the appointment to which they send me a

direct link, but I don't know where to find other staff links on the [evaluation site] website (Student survey feedback).

Other feedback pointed to the availability of virtual advising in terms of extended appointment hours or individual appointment length. Together this feedback revealed a need to maximize the availability of services while also accounting for quality standards.

Quality standards should not only address service availability and engagement, but also resources needed to successfully engage in a virtual advising landscape. Technology barriers were cited several times by students and advisors as a challenge for virtual advising participation. For example, one student wrote, "I sometimes have trouble connecting on my computer due to my wifi or computer being slow so I try logging in minutes earlier just to prepare my computer, and sometimes the audio glitches and some words are lost" (Student survey feedback). Institutional resources including digital literacy support offered through the tutoring center or discounted and loaner computer and internet tools are potential ways in which to mitigate barriers and increase access to virtual services.

A final component to the fourth key finding emerged through advisor feedback in the evaluation workshops and employee survey that connected to measures of efficacy for virtual advising. Helping primary stakeholders understand professional evaluation standards and applying them to practice helped facilitate connections to the value of evaluations. Additionally, employee survey responses about measuring the efficacy of virtual advising revealed the need to establish consistent and measurable metrics that can inform advising structure and practice.

Collectively, the key findings of this evaluation served to answer the guiding research question: *What are the recommendations to attain a streamlined organizational structure for evaluating* *virtual academic advising services at one North Carolina community college based upon a utilization-focused evaluation?*

The following implications for policy and practice elaborate on evidence answering this question.

Implications for Policy and Practice

Implication for Policy and Practice 1: Create Reasonable and Consistent Advising Service Standards

The first implication for policy and practice is: *Improve and streamline the organizational structure of advising by establishing reasonable and consistent standards for service options, particularly virtual advising.* This implication is based on evidence presented in key findings two and four that showed complex and dynamic advising processes, and recommendations for the optimal virtual advising experience, respectively. The organizational structure of advising at the research site consists of several advising roles that include professional advisors, program faculty advisors, and colleague liaisons. Although all advising personnel work with students to support numerous aspects of their success as introduced in Chapter 2, student and employee evaluation feedback revealed disjointed advising services, including virtual, that had no standardization in structure or access to services. Although professional advisors were identified as the primary stakeholders of this evaluation, students navigate through a network of advisors without clarity or consistency in services. For virtual advising, this includes varied means of scheduling and meeting platform use. Establishing realistic yet consistent service options across advising groups may provide clearer routes for students to engage with advising and utilize preferred service options like virtual advising. Additionally, these standards should account for potential digital divides by providing access to resources such as computer and Wi-Fi devices as evidenced by key finding four. Doing so may facilitate improved student engagement and support students' reasons for staying in college as discussed in Habley's (1981) Advisement Retention Model.

Implication for Policy and Practice 2: Establish Ongoing Methods of Evaluation

The second implication for policy and practice is: *Establish ongoing methods of evaluation that inform and guide all advising stakeholders and practices*. This implication is based on evidence from key findings two and three that addressed the complex and dynamic organizational structure of advising, and the impact of stakeholder knowledge and perceptions on evaluation participation. As previously discussed in the evaluation findings, practically no advising data was available prior to fall 2023. Baseline data that supported the first step in the U-FE process was established during this time, but gaps still existed. Data gaps include a lack of information about virtual advising scheduling to actual appointment attendance, average virtual advising meeting length, technical issues or disruptions encountered with virtual advising, advising utilization data representing program advisors and college liaisons, and trends in advising service use. Additionally, stakeholder feedback in the evaluation workshops revealed that stakeholders' perceptions of evaluation could support or hinder evaluation processes, as detailed in key finding three. By implementing an evaluation approach that placed primary stakeholders at the helm, participants were more willing to participate in the planning and implementation process, thus generating more meaningful and robust data that can inform and strengthen advising service quality.

Recommendations for Future Research

Through the findings of this study, two recommendations for future research emerged and are detailed below.

Recommendation 1: Investigate the Impact of Digital Divides on Virtual Advising Engagement

Evidence from key finding four revealed advisor perceptions about the resources they needed to conduct virtual advising meetings as well as resources needed for students to participate in virtual advising. Additional survey questions gathered feedback from students and advisors about what they liked least about virtual advising or what they perceived to be the biggest challenges for virtual advising. A resounding theme was technology issues or barriers inhibiting successful or satisfactory engagement in virtual advising. In one student survey question about virtual advising utilization, some students indicated they did not participate in virtual advising because they did not have the resources needed, and in another advisor survey question one employee indicated a lack of knowledge about their capacity to facilitate virtual advising meetings. The evaluation site of this study also indicated on their website that they offer digital literacy support through the tutoring center and provided discounted pricing on computers and hotspots or loaner laptops through their library (Evaluation site website information). Future research may investigate what specific digital divides exist among students and employees and the impact of institutional resources on minimizing those barriers.

Recommendation 2: Investigate the Impact of Streamlined Practices on Advising Service Utilization and Connection to Student Outcomes

Key findings two and four of this evaluation provided substantial feedback about the complexities of one community college's advising structure and service options as well as best practices for implementation. Student feedback provided during the evaluation indicated both preferences for and against virtual advising based upon how they felt that virtual advising provided a personal experience characterized by aspects of face-to-face interactions. This supports research previously noted in the literature review that found student outcomes to be inconclusive as a result of mixed findings (Atchley et al., 2013; Bernard et al., 2004; Bettinger et al., 2017; Hachey et al., 2022b; Nemetz et al., 2017; Nguyen, 2015; Ni, 2013; Xu & Jaggars, 2011). This evaluation determined advising utilization data trends, and stakeholder preferences and experiences particularly in relation to virtual advising. However, this evaluation also found areas where data gaps and organizational inconsistencies exist. Future research may investigate the impact of standardized practices across multiple advising groups on actual advising service utilization and possible connections to student satisfaction and outcomes such as retention.

Conclusion

In conclusion, this utilization-focused evaluation created space for one North Carolina community college advising program to explore synchronous virtual advising services as a means to learn more about stakeholders' experiences with this advising modality and improve this resource for future use. Overall, findings revealed that virtual advising provides convenient, flexible, and accessible support to students that may otherwise face barriers related to transportation, location, work, time and scheduling constraints, or dependent care. Conversely, virtual advising may create barriers for stakeholders lacking the resources or technological skills to effectively participate. These findings have offered insight on strategic opportunities to develop institutional practices that create more inclusive and streamlined services that leverage technology to support the caring connections between students and advisors (Troxel et al., 2021). By consolidating virtual advising with key aspects of more traditional in-person sessions, advising practitioners may be able to facilitate meaningful connections that foster students' satisfaction, retention, and success outcomes.

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APPENDICES

Appendix A

NC State IRB Approval Exemption

---------- Forwarded message ---------
From: **IRB Coordinator-Admin** <irb-coordinator-admin@ncsu.edu>
Date: Mon, Apr 24, 2023 at 6:04 AM
Subject: Re: IRB Question
To: Carrol Warren <clwarren@ncsu.edu>

Hello Carrol,

Program evaluations are not considered generalizable research and do not require IRB review.

Thanks,
Carter

On Fri, Apr 21, 2023 at 9:05 AM Carrol Warren <clwarren@ncsu.edu> wrote:

> Hi,
>
> I'm working with a student who intends to conduct a utilization-focused evaluation for their dissertation research. The evaluation methodology specifically indicates that the program being evaluated must have input from stakeholders in the beginning processes to help design questions, a timeline, identify other stakeholders, etc.
>
> Would IRB be required for this type of practical application research?
>
> Thanks!
>
> NC STATE UNIVERSITY
> College of Education
> Belk Center for Community College Leadership and Research
>
> Carrol L. Warren, Ed.D.
> Faculty Scholar
> E: clwarren@ncsu.edu
> P: (910) 379-8035

Appendix B

Evaluation Site Evaluation Workshop Approval

Re: IRB Inquiry

[redacted]

Tue 11/21/2023 9:13 AM

To: [redacted]

Cc: [redacted]

Hi Allegra.

I'm happy to help you navigate the IRB process here at [redacted]. Indeed, it can seem labyrinthine at times.

You are correct that federal guidelines define "research" as studies that are designed to produce generalizable knowledge, and therefore many internal evaluations (such as course evaluations) do not require IRB review. However, [redacted]'s policy does require that any research conducted as part of a doctoral dissertation undergo IRB review. This is to protect both the college and you as the PI, and it also ensures that you will be able to present and/or publish your findings at any point in the future. After taking on a project of this magnitude, most doctoral students want that option.

As far as the application is concerned, you do not need to obtain IRB approval until you are ready to begin collecting data. If, as part of the process, you will be consulting stakeholders to determine how to best evaluate the program, you can begin that work without IRB approval. You just want to make sure that, once a methodology is selected, you do not begin data collection until you have obtained approval.

I'm happy to discuss the specifics of your project in more depth so you can determine when and how to involve our board in your process. Please let me know if I can be of further assistance.

Regards,

[redacted]

Appendix C

Evaluation Site IRB Approval

[redacted] [redacted]

March 21, 2024

Ms. Modlin:

I am pleased to notify you that your proposed study entitled "Virtual Advising in the Community College Setting in A Pandemic Era: A Utilization-Focused Evaluation" has been determined to be exempt from the requirements of human research protections under the following exemption category:

Research that only includes interactions involving educational tests, survey procedures, interview procedures, or observation of public behavior if there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data.

Please note that, despite this exempt determination, you still have ultimate responsibility for the ethical conduct of the research and for the protection of the rights and welfare of all human subjects involved in the research.

Any changes to your proposed research methodology may affect this exempt determination. In the case that any modifications are needed, you must submit a modification request to the IRB in order for us to determine whether the project remains exempt.

Please feel free to contact me with any questions concerning this exempt determination or the protection of the rights and welfare of the subjects under this project.

Sincerely,

[redacted]

Appendix D

Evaluation Workshop Packet with Interview Protocol and Informed Consent

Virtual Advising in the Community College Setting in a Pandemic Era: A Utilization-Focused Evaluation

Evaluation Launch Workshop
December 13th and 15th, 2023

Virtual Advising Evaluation Launch Workshop Interview Protocol Form

Academic Advisor Interview Protocol

Institutions: ____

Interviewee (Title and Name): ______________________________________

Interviewer: ____

Workshop Section Used:

_____ 1: Warm Up

_____ 2: Background Information

_____ 3: Defining Evaluation

_____ 4: Defining Utilization-Focused Evaluation

_____ 5: Field Analysis

_____ 6: Commitment to Evaluation Process

_____ 7: Preliminary Evaluation Questions

_____ 8: Evaluation Purpose

_____ 9: Evaluation Focus

_____ 8: Evaluation Design

Other Topics Discussed:_______________________________________

____

Documents Obtained: ____

____

____

Post Interview Comments or Leads:

____

Virtual Advising Evaluation Launch Workshop

Introductory Protocol

To facilitate later transcribing, I would like to video record our conversations today using the Teams account through this institution. Please sign the release form. For your information, I am the only researcher on the project that will be privy to the recordings which will be eventually destroyed after they are transcribed. In addition, you must sign an informed consent form devised to meet our human subject requirements. Essentially, this document states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) we do not intend to inflict any harm. Thank you for agreeing to participate.

I have planned this workshop to last no longer than four hours. During this time, I have several activities that I would like to cover. If time begins to run short, it may be necessary to direct you forward in order to complete these activities.

Introduction

You have been selected to speak with us today because you have been identified as someone who has a great deal to share about academic advising and virtual advising services on this campus. My research project as a whole focuses on understanding more about how virtual advising services are being implemented and used at a North Carolina Community College. I will do this through a utilization-focused evaluation of virtual advising services which is an evaluation approach that is highly customizable to your team and institution. The results from this evaluation aim to provide you with insights that can inform strategies for future practice and expand the body of knowledge about promising practices, opportunities, and challenges of virtual academic advising.

Participant Signature: ______________________________________

Post Interview Comments and/or Observations:

Title of Study: Virtual Advising in the Community College Setting in A Pandemic Era: A Utilization-Focused Evaluation
IRB Protocol:
Funding Source: None
Principal Investigator(s): Cathryn Modlin, [redacted]
NC State Faculty Point of Contact: Dr. Carol Warren, [redacted]

You are invited to take part in a research study. Here are some important things to know:

- Your participation in this study is voluntary. You can choose not to participate without penalty. If you decide to participate and change your mind, you can stop participating at any time without penalty.
- The purpose of this research study is to evaluate virtual advising services at a North Carolina Community College as a means to inform practitioners of opportunities, challenges, and best practices to implement virtual advising in a pandemic era.
- You will be asked to participate in group workshops, interviews, and surveys to collect data over the estimated course of 6 months.
- You are not guaranteed any personal benefits from being in this study. Research studies may pose risks to those who participate.
- You may want to participate in this research because evaluating virtual advising services at your site can offer valuable insights to inform future practice. You may not want to participate in this research because it will engage you in additional activities outside of your regularly assigned duties.
- If you have questions about your participation in this research at any time, do not hesitate to contact the researcher(s) named above or the NC State IRB office via email at IRB-Director@ncsu.edu or via phone at 1-919-515-8754

Please read the rest of this consent form for more specific details of this research. If you do not understand something, please ask the researcher for clarification or more information.

What is the purpose of this study?
The purpose of the study is to implement a utilization-focused evaluation of virtual advising services at a North Carolina Community College in a pandemic era.

How many people will be in the study?
There will be approximately 15 participants in this study.

Am I eligible to be a participant in this study?
In order to be a participant in this study, you must agree to be in the study and be a member of advising leadership; an academic advisor; or currently enrolled as a student at the site.

You cannot participate in this study if you do not meet the inclusion criteria or are listed as a visiting student, special student, or post-baccalaureate student; are in a dual enrollment high school program; or are under the age of 18.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to do all of the following:

1. Participate in evaluation workshops at your site and complete evaluation activities during these workshops.
2. Engage in interviews with the evaluator to provide qualitative feedback about virtual advising services and practices at your site.
3. Complete survey assessments.

You will be provided a copy of your research data so that you can confirm the accuracy of the information collected. You can indicate if there's any information or identifiers you want us to delete or not share.

The total amount of time that you will be participating in this study is approximately 6 months.

Recording in research

The researcher would like to record you for research purposes if you agree. The recording will only occur while you are participating in research activities. Please initial next to the sentence(s) that you agree to:

______ It's okay to record audio and video of me

The researcher would like to use audio and/or video recordings for transcribing and summarizing interactions and feedback. We will keep these recordings until the conclusion of the evaluation research study and subsequent reporting has been completed.

Benefits to participating in this research

The direct benefits to you as a result of your participation in this research include: valuable insight about the utility of virtual advising services at your site leading to potential enhancements that may increase efficiency, quality, and value.

Risks to participating in this research

There is minimal risk associated with your participation in this research.

What data will be collected about me and are there risks associated with that?

The data that are collected about you include your title or status at the research site as an employee or student, qualitative feedback about your perceptions of virtual advising services, user history of virtual advising services, self-reports of access to and knowledge of technology, and demographic data. These data are not connected to your name or other information that could easily identify you. The risks to you as a result of collecting this information are minimal and will be reinforced through implementing data protections in accordance with NC State data protection standards.

This study includes the collection of student participant records. I will collect data on demographics and program of study. The purpose of collecting these student records is to understand how virtual advising usage and effectiveness may vary across different demographic and program criteria. This information will be accessible to the researcher. The dataset will remain indirectly identifiable.

How will my identity and the data about me be stored and protected?
After all data is collected, the researcher will go through the data and remove all direct identifiers and retain indirect identifiers with the data. Examples of the information that will be removed include your name, student identification number, contact information, and address. After I do this, it is unlikely your identity could be deduced from your responses.

Who can access my data and how will my data be shared and used in the future?

Your data, with direct identifiers removed, may be stored and used for future research studies without additional consent from you. This may include sharing your individual de-identified data with other researchers, journals, data repositories, and/or funding sources.

How will the data about me be reported to the public and are there risks associated with that?
We may quote you or share specific responses from you in our publications and presentations, but we will not include your name or any other information that could easily identify you. As a result, there are minimal risks to you as a result of how we report the data.

Right to withdraw your participation
Your participation is voluntary. Even if you agree initially, consent is an ongoing process. You can stop participating at any time for any reason. To do so, you can contact the researcher, Cathryn Modlin, for this study at [redacted]. Or you can contact the faculty advisor for this research, Dr. Carol Warren, at [redacted]

If you withdraw, we will stop any procedures or data collection that may be happening. We will also delete any data that's already been collected from you whenever possible. We will not be able to delete your data if we cannot identify which responses are yours or if the data has already been published.

Compensation
There is no compensation for participating in this study.

What if you are a student?
Your participation in this study is not a course requirement. Your participation or lack thereof will not affect your class standing, grades, or relationship with your instructors or advisors.

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact the NC State IRB (Institutional Review Board) office. An IRB office helps participants if they have any issues regarding research activities. You can contact the NC State University IRB office at IRB-Director@ncsu.edu, 919-515-8754, or fill out a confidential form online at https://research.ncsu.edu/administration/participant-concern-and-complaint-form/

Consent to participate

By signing this consent form, I am affirming that I have read the above information. All of the questions that I had about this research have been answered. If I consent to participate, I understand that I can stop participating at any time without penalty or loss of benefits to which I am otherwise entitled. I am aware that I may revoke my consent at any time.

☐ **Yes, I want to be in this research study.**

☐ **No, I do not want to be in this research study.**

Thank you for your consideration.

Warm Up

Task: Each participant will discuss with the group their responses to the following questions.

Estimated time: 15 minutes

Warm Up Questions:

1) What is a lesson or piece of advice you've found useful in your life or career?

2) What is something you admire about someone here today?

3) What is something you are proud of?

What if you are an employee?

Your participation in this study is not a requirement of your employment. Your participation or lack thereof will not affect your job.

What if you have questions about this study?

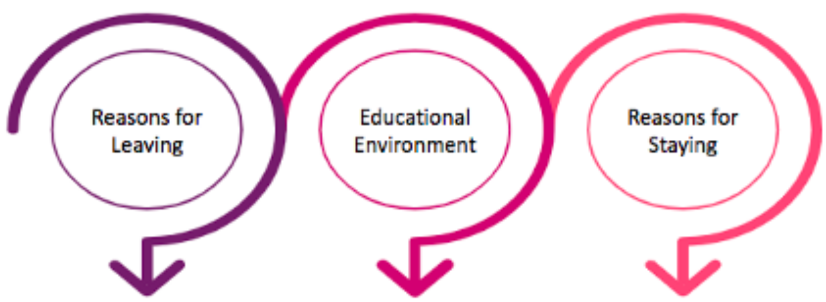
If you have questions at any time about the study itself or the procedures implemented in this study, you may contact the student researcher, Cathryn Modlin, at [redacted]. You can also contact the faculty advisor for this research, Dr. Carol Warren, at [redacted].

Background

- Academic advising is an integral part of student success including social integration, persistence, retention, learning, transfer, and completion
- Community college advisors serve as front-line staff who support students with understanding and navigating college
- Challenges to advising include advisor-to-student ratios, time, funding, and competencies for advising various student populations
- The COVID-19 pandemic has exacerbated challenges across higher education, particularly among community colleges
- The increased integration of technology in higher education, including academic advising, presents opportunities as well as challenges

Guiding Framework

Wesley Habley's Advisement Retention Model



Retention is more likely when students' academic program aligns with their goals; they are in a stimulating learning environment; there is a high level of demonstrated concern for students; and there is alignment between students' expectations for success and success outcomes.

Defining Virtual Advising

Digitization of Academic Advising

Facilitating virtual academic advising support that mirrors the human contact and interpersonal relationships of meeting face-to-face is imperative

Defining Evaluation

Objective: Identify personal perceptions of evaluation. Establish a shared positive understanding of evaluation.

Task: As a group, discuss what words and feelings you associate with the word evaluation. Then discuss what a useful and successful evaluation would like to you. The evaluator will note your feedback on the whiteboard.

Estimated time: 20 minutes

Discussion Questions:

1) What words and feelings come to mind when you think about the word evaluation?
2) If an advising evaluation were useful and actually used here, what would that look like?
3) What sort of things might take place to tell you that the evaluation was successful?
4) What would evaluation success look like from your perspective?

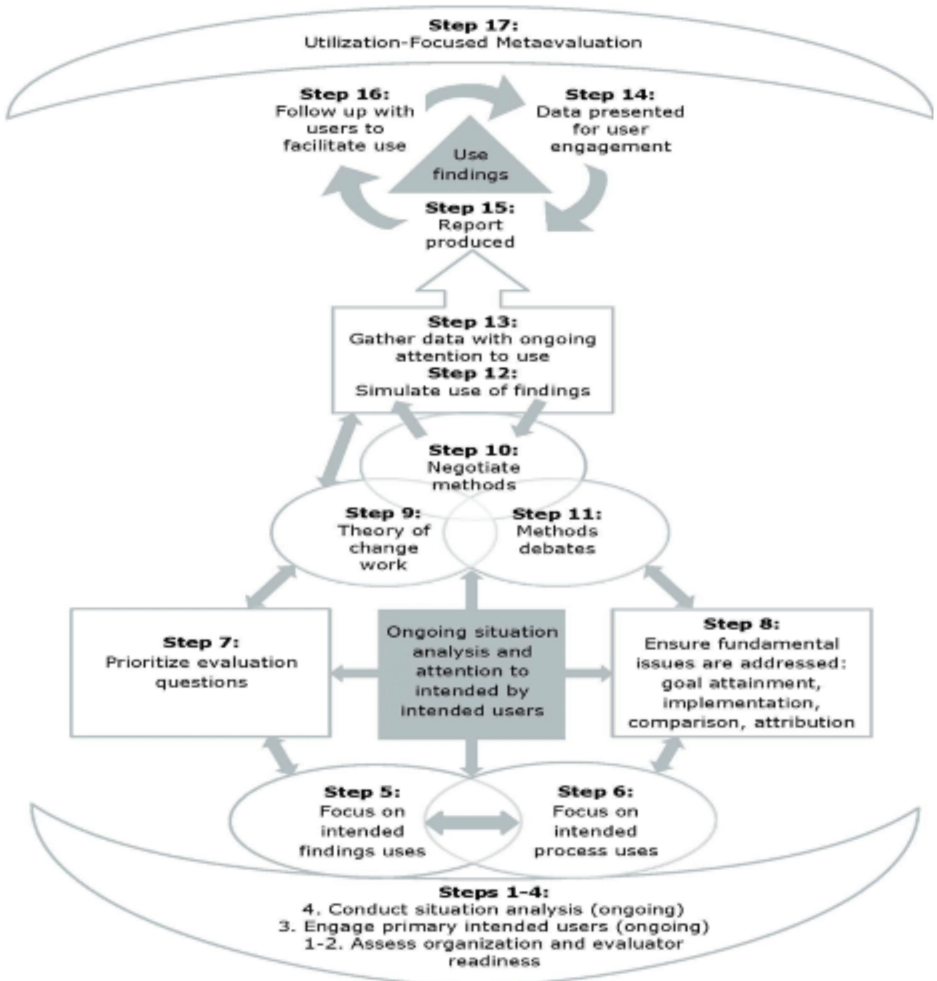
What is the role of the evaluator in a U-FE?

The role of the evaluator is to facilitate the evaluation process with consideration of how the entire process will affect the use of evaluation findings. The role of the evaluator is not to make decisions about the evaluation independent of the primary users.

How is a U-FE implemented?

Utilization-focused evaluation guides evaluators and all stakeholders through a process that is highly customizable to the intended users of an evaluation so that the design, data, and outcomes inform intended use leading to meaningful action.

There are 17 steps in a U-FE as depicted in the image on the next page. For the purposes of this evaluation, our group will focus on steps 1-15. The first 10 steps will be addressed in today's workshop.



Utilization-Focused Evaluation

What is a utilization-focused evaluation (U-FE)?

Founded by Michael Patton, utilization-focused evaluations are based on the idea that evaluations should be judged by their usefulness. This approach is concerned with how people experience the evaluation process and are able to apply evaluation findings to affect use. U-FE recognizes that the primary users of an evaluation will influence the evaluation process and also bear the responsibility of enacting recommendations from the evaluation findings.

Source: Patton, M. (2012). Essentials of Utilization Focused Evaluation. Sage Publications.

Field Analysis

Objective: Establish baseline information about academic advising with particular emphasis on virtual advising. Identify factors that may affect the evaluation process.

Task: Work independently to respond to the following questions. Engage in a group discussion of your responses to the extent that you are comfortable sharing. Your written responses will be collected and remain anonymous. Please do not write your name on this assessment.

Estimated time: 35 minutes

Questions to answer:

1) What is the history of academic advising at [redacted]? How has academic advising here changed over time?

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2) What is the history of virtual advising at [redacted]? How has virtual advising here changed over time?

3) Currently, what are the primary goals related to academic advising at [redacted] and what, if any, goals are connected to virtual advising?

4) What strategies are being utilized to achieve the goals of academic advising? What about virtual advising?

5) What evaluations of academic advising have taken place at [redacted] in the past? What about virtual advising?

6) Are there any current evaluation processes in place for academic advising? If yes, how is evaluation data being used? Does any of it relate to virtual advising?

7) What capacity does [redacted] have to engage in evaluation (i.e., staff, budget, information systems, culture, data management)?

8) What factors are likely to be positive forces that support this evaluation and the use of its findings?

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9) What factors are likely to create resistance or barriers to this evaluation and use of its findings?

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10) How might the positive forces be used to minimize potential negative forces?

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Commitment to Professional Standards

Objective: Understand professional and quality standards of evaluation. Establish group norms and expectations in preparation for the evaluation. Commit to evaluation of virtual advising.

Task: Independently review the Checklist of The Program Evaluation Standards Statements established by the Joint Committee on Standards for Educational Evaluation. Determine your commitment to this evaluation. Then, discuss as a group items that stood out to you that should be identified as a norm or expectation for this evaluation process. Your feedback will be noted by the evaluator on the whiteboard.

Estimated time: 20 minutes

Discussion Questions:

1) Are you willing to take a close look at whether what you believe is happening with virtual advising is actually happening?
2) Are you willing to take a close look at whether what you hope virtual advising is accomplishing is actually being accomplished?
3) What evaluation standards stood out to you that should be identified as a norm or expectation for this evaluation process?

Checklist of The Program Evaluation Standards Statements

Joint Committee on
Standards for Educational Evaluation

The Program Evaluation Standards "identify and define evaluation question and guide evaluators and evaluation users in the pursuit of evaluation quality" (Yarbrough, Shulha, Hopson, & Caruthers, 2011). The Standards include thirty statements that define five dimensions of program evaluation quality: utility, feasibility, propriety, accuracy, and evaluation accountability. Each standard has a name and is expressed in a statement, which is then explained in more detail in *The Program Evaluation Standards* book (Yarbrough et al., 2011). The standards' names and statements are reproduced below in checklist form with permission of the Joint Committee on Standards for Educational Evaluation (JCSEE).

The purpose of this checklist version of the Standards is to provide evaluation practitioners, clients, users, and students with an accessible overview of the Standards. We encourage users to read *The Program Evaluation Standards* in full, and then use this checklist as a quick reference.

Utility Standards

The utility standards are intended to increase the extent to which program stakeholders find evaluation processes and products valuable in meeting their needs.

- ☐ **U1 Evaluator Credibility:** Evaluations should be conducted by qualified people who establish and maintain credibility in the evaluation context.
- ☐ **U2 Attention to Stakeholders:** Evaluations should devote attention to the full range of individuals and groups invested in the program and affected by its evaluation.
- ☐ **U3 Negotiated Purposes:** Evaluation purposes should be identified and continually negotiated based on the needs of stakeholders.
- ☐ **U4 Explicit Values:** Evaluations should clarify and specify the individual and cultural values underpinning purposes, processes, and judgments.
- ☐ **U5 Relevant Information:** Evaluation information should serve the identified and emergent needs of stakeholders.

- **U6 Meaningful Processes and Products:** Evaluations should construct activities, descriptions, and judgments in ways that encourage participants to rediscover, reinterpret, or revise their understandings and behaviors.
- **U7 Timely and Appropriate Communicating and Reporting:** Evaluations should attend to the continuing information needs of their multiple audiences.
- **U8 Concern for Consequences and Influence:** Evaluations should promote responsible and adaptive use while guarding against unintended negative consequences and misuse.

Feasibility Standards

The Feasibility standards are intended to increase evaluation effectiveness and efficiency.

- **F1 Project Management:** Evaluations should use effective project management strategies.
- **F2 Practical Procedures:** Evaluation procedures should be practical and responsive to the way the program operates.
- **F3 Contextual Viability:** Evaluations should recognize, monitor, and balance the cultural and political interests and needs of individuals and groups.
- **F4 Resource Use:** Evaluations should use resources effectively and efficiently.

Propriety Standards

The propriety standards support what is proper, fair, legal, right and just in evaluations.

- **P1 Responsive and Inclusive Orientation:** Evaluations should be responsive to stakeholders and their communities.
- **P2 Formal Agreements:** Evaluation agreements should be negotiated to make obligations explicit and take into account the needs, expectations, and cultural contexts of clients and other stakeholders.
- **P3 Human Rights and Respect:** Evaluations should be designed and conducted to protect human and legal rights and maintain the dignity of participants and other stakeholders.
- **P4 Clarity and Fairness:** Evaluations should be understandable and fair in addressing stakeholder needs and purposes.
- **P5 Transparency and Disclosure:** Evaluations should provide complete descriptions of findings, limitations, and conclusions to all stakeholders, unless doing so would violate legal and propriety obligations.
- **P6 Conflicts of Interests:** Evaluations should openly and honestly identify and address real or perceived conflicts of interests that may compromise the evaluation.
- **P7 Fiscal Responsibility:** Evaluations should account for all expended resources and comply with sound fiscal procedures and processes.

Accuracy Standards

The accuracy standards are intended to increase the dependability and truthfulness of evaluation representations, propositions, and findings, especially those that support interpretations and judgments about quality.

- **A1 Justified Conclusions and Decisions:** Evaluation conclusions and decisions should be explicitly justified in the cultures and contexts where they have consequences.
- **A2 Valid Information:** Evaluation information should serve the intended purposes and support valid interpretations.
- **A3 Reliable Information:** Evaluation procedures should yield sufficiently dependable and consistent information for the intended uses.
- **A4 Explicit Program and Context Descriptions:** Evaluations should document programs and their contexts with appropriate detail and scope for the evaluation purposes.
- **A5 Information Management:** Evaluations should employ systematic information collection, review, verification, and storage methods.
- **A6 Sound Designs and Analyses:** Evaluations should employ technically adequate designs and analyses that are appropriate for the evaluation purposes.
- **A7 Explicit Evaluation Reasoning:** Evaluation reasoning leading from information and analyses to findings, interpretations, conclusions, and judgments should be clearly and completely documented.
- **A8 Communication and Reporting:** Evaluation communications should have adequate scope and guard against misconceptions, biases, distortions, and errors.

Evaluation Accountability Standards

The evaluation accountability standards encourage adequate documentation of evaluations and a metaevaluative perspective focused on improvement and accountability for evaluation processes and products.

- **E1 Evaluation Documentation:** Evaluations should fully document their negotiated purposes and implemented designs, procedures, data, and outcomes.
- **E2 Internal Metaevaluation:** Evaluators should use these and other applicable standards to examine the accountability of the evaluation design, procedures employed, information collected, and outcomes.
- **E3 External Metaevaluation:** Program evaluation sponsors, clients, evaluators, and other stakeholders should encourage the conduct of external metaevaluations using these and other applicable standards.

Reference

Yarbrough, D. B., Shulha, L. M., Hopson, R. K., & Caruthers, F. A. (2011). *The program evaluation standards: A guide for evaluators and evaluation users* (3rd ed.). Thousand Oaks, CA: Sage.

Suggested Citation

Joint Committee on Standards for Educational Evaluation. (2018). *Checklist of the program evaluation standards statements*. Retrieved from https://wmich.edu/evaluation/checklists

Source: Joint Committee on Standards for Educational Evaluation. (2018). *Checklist of the program evaluation standards statements.* Retrieved from https://wmich.edu/evaluation/checklists

Preliminary Questions for Virtual Advising

Objective: Generate reflection about potential evaluation direction and questions for virtual advising.

Task: Independently write up to 10 questions or statements about what you want to know about virtual advising, things you may not be certain about, or things that you feel would make a difference in what advisors would do if they had more information related to virtual advising.

Estimated time: 10 minutes

Questions/Statements:

Primary Evaluation Purpose

Objective: Assess primary purposes of an evaluation and identify the primary purpose of this evaluation. Gain an understanding of how the evaluation purpose is informed by how stakeholders intend to use the evaluation findings.

Task: Review the primary purposes of evaluation on the next page. Discuss as a group which purpose is most relevant to this evaluation.

Estimated time: 15 minutes

Primary Purposes:

- Judgment
- Learning
- Accountability
- Monitoring
- Development
- Knowledge generation

Purpose	Common Evaluation Approaches	Key Factors Affecting Use
Judgment of overall value to inform and support major decision making: Determine the value and future of the program or model.	– Summative evaluation – Impact evaluation – Cost-benefit analysis – Theory-driven evaluation	–Independence and credibility of the evaluator. –Rigor of the design: validity, generalizability. –Significance of the findings to decision makers. –Timeliness.
Learning: Improve the program.	– Formative evaluation – Quality enhancement – Learning reviews – Reflective practice – Participant feedback – Capacity-building – Appreciative inquiry	–Creating a learning climate, openness to feedback and change. Trust. –Evaluator's skill in facilitating learning. –Relevance of findings; actionable.
Accountability: Demonstrate that resources are well-managed and efficiently attain desired results.	– Government and funder mandated reporting – Program audits and inspections – Performance measurement and monitoring – Accreditation and licensing – End of project reports – Scorecards	–Transparency. –Validity of indicators. –Integrity and credibility of the system and those reporting. –Balance. –Consistency of reporting. –Fairness of comparisons.
Monitoring: Manage the program, routine reporting, early identification of problems.	– Management information systems – Quality control systems and CQI (continuous quality improvement) – Routine reporting and record keeping – Performance indicators	–Timeliness, regularity, relevance, and consistency of reporting; incentives to input data at field levels and incentives to use the data at management levels; capacity and resources to maintain the system. –Appropriate links to accountability system.
Development: Adaptation in complex, emergent, and dynamic conditions.	– Developmental evaluation – Complexity systems – Emergent evaluation – Real-time evaluation – Rapid assessment, rapid feedback – Environmental scanning	–Openness. Adaptive capacity. –Tolerance for ambiguity and uncertainty ("getting to maybe"). –Balancing quality and speed of feedback. –Nimble. –Integrate and synthesize multiple and conflicting data sources.
Knowledge generation: Enhance general understandings and identity generic principles about effectiveness.	– Cluster evaluation – Meta-analysis – Synthesis evaluation – Lessons learned – Effective practices studies	–Quality and comparability of sources used; quality of synthesis; capacity to extrapolate. –Rigor of triangulation. –Identifying principles that can inform practice.

Adapted from: Patton, M. (2012). *Essentials of Utilization Focused Evaluation*. Sage Publications.

Focusing Priority Evaluation Questions

Objective: Move from preliminary thoughts and overall purpose toward refined and prioritized evaluation questions.

Task: Refer back to your preliminary list of questions and statements and consider the overarching purpose of this evaluation. Collaborate as a group to prioritize and establish a single list of evaluation questions (no more than 10). Sample questions related to the overarching evaluation purpose can be reviewed on the next page.

Estimated time: 30 minutes

1) ____
2) ____
3) ____
4) ____
5) ____
6) ____
7) ____
8) ____
9) ____
10) ____

Summative evaluation questions that lead to overall judgments of merit, worth, and significance:
•To what extent and in what ways does the program meet participants' needs?
•To what extent have intended outcomes been attained?
•What have been the larger impacts of the program?
•To what extent can documented outcomes be attributed to the intervention?
•Is this an especially effective practice that should be funded and disseminated elsewhere as a model program?
•How do outcomes and the costs of achieving them compare to other intervention or program options? Does the program add value for money?
•What are unanticipated outcomes and impacts, if any?

Formative, program improvement-oriented questions:
•What are the program's strengths and weaknesses? What works and what doesn't?
•What implementation processes need to be improved, if any?
•How are participants reacting to the program? What do they like and dislike? What do they find valuable? What do they resist? What factors seem to be affecting program completion?
•How do different subgroups in the program respond; that is, what works for whom in what ways and under what conditions?
•What are program staff reactions? What are their perceptions of what could be improved?
•Where are opportunities for improvement? How can outcomes and impacts be increased? How can costs be reduced? How can quality be enhanced?

Accountability questions:
•Are funds being used for intended purposes?
•Are resources being efficiently allocated?
•Is implementation following the approved plan?
•Are staff qualified? Are only eligible participants being accepted into the program? Are partners performing as promised and expected?
•Are quality control mechanisms in place and being used?
•Are goals, targets, and key performance indicators being met?
•Are problems being handled?

Ongoing monitoring questions:
•To what extent are inputs and processes flowing smoothly and according to plan?
•What are entry, participation, completion, and drop-out rates? Are these changing?
•Are outputs being produced as anticipated and scheduled?
•Where are bottlenecks occurring, if at all?
•What are variations across subgroups or sites?
•Are funds coming in and expenditures going out in accordance with the approved budget?
•What, if anything, is changing in the program's context that is or could affect operations?

Developmental evaluation questions for innovative interventions in complex systems:
•What is being developed?
•How is the intervention adapting to complex, emergent, and dynamic conditions?
•What innovations are emerging and developing, with what effects?
•What's happening at the interface between what the program is doing and accomplishing and what's going on the larger world around it?
•What complex systems changes are occurring?

Knowledge-generation questions:
•What are general patterns and principles of effectiveness across programs, projects, and sites?
•What lessons are being learned?
•How do evaluation findings triangulate with research results, social science theory, expert opinion, practitioner wisdom, and participant feedback?
•What principles can be extracted across results to inform practices and models in new settings?

Adapted from: Patton, M. (2012). *Essentials of Utilization Focused Evaluation*. Sage Publications.

Evaluation Design and Implementation

Objective: Build upon overarching evaluation purpose and questions to answer by using the Utilization-Focused Outcomes Framework to aid in the design and implementation of the evaluation.

Task: Take a few minutes to individually look over the categories below. Discuss as a group what is needed to address each category for evaluation.

Estimated time: 35 minutes

Categories to consider:

1) **Specific goals**: What are the desired outcomes or goals of this evaluation? Make sure goals are specific, realistic, measurable and timebound.

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2) **Target groups**: What group(s) do our purpose and goals have value for?

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3) **Data collection**: What data is needed to determine if goals have been met? How will that data be collected (methods)? What benchmarks should be established to monitor the progress of the evaluation?

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4) **Results**: How will the results of the evaluation be used?

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Appendix E

Republication Approval for Patton, 2012 U-FE 17-Step Graphic

j

Craig Myles
to me

Fri, Apr 26, 7:09PM (4 days ago)

——————

Reply above this line.

Craig Myles commented:

Hello Catherine,

Thank you for confirming that it is an institutional requirement to post your dissertation to ProQuest. Given this, I am pleased to report we can grant your request to reuse The 17-Step Figure (p. 426) from '*Essentials of Utilization Focused Evaluation*' without a fee as part of your dissertation.

Please accept this email as permission for your request as detailed above. Permission is granted for the life of the dissertation on a non-exclusive basis, in the English language, throughout the world in all formats provided full citation is made to the original Sage publication. Permission does not include any third-party material found within the work. Please contact us for any further usage of the material.

If you have any questions, or if we may be of further assistance, please let us know.

Kind regards,

Craig Myles (*he/him/his*)
Rights Administrator

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Appendix F

Virtual Meeting Summative Report and Activities

Activity 1: Evaluation Questions

Below are the Virtual Advising Evaluation questions developed by you and your colleagues to assess virtual advising services at this community college. Review each and collaborate as a team to refine this list to 10 questions or less. Enter revised questions under the area labeled Finalized Evaluation Questions. As you refine these questions, consider the following:

What do we need to know and assess about virtual advising to inform our practices and services?
Are there any questions that can be merged?
Are there any questions that need to be revised?
Are there any questions you feel need to added or removed?

(Workshop) Evaluation Questions:

1. How do we define virtual advising? Key question – keep. Eliminate question for this evaluation and focus on synchronous virtual advising and provide operational definition
2. Are our advising strategies the same across advising service modalities? Yes and No. Yes in sense that we provide the same basic services regardless of modality using essentially the same info and techniques. No in some cases. For example we see walk – in students often knowing nothing about them or where the conversation will go. With remote we usually have time to prepare at least somewhat for the upcoming conversation, we can collect some info upfront which can make these meetings more efficient.
3. Is the student experience the same across advising service modalities? Same answer as #2. One difference that comes to mind: when a student is under extreme stress or in need of an immediate change of situation, we can often provide that to students in the office. For example we may get them admitted, advised, registered and starting classes all on the same day if they come in with the necessary documents. We can't generally do that remotely, except to the extent that we can get them to come in that day. There is more room for error with remote appointments. Technical issues can and do arise. And there is an element of being anonymous in remote appointments, particularly on the student side. If they haven't been here, they don't know how our office works or how it is connected to other departments. It raises a slightly greater risk of misunderstanding, miscommunication or bad behavior on the part of the student. At the same time, these issues raise the risk that the student feels dissatisfied, frustrated or angry if we cannot immediately resolve their issue. Finally, we can waste a lot of time waiting for students who make remote appointments to show up...and then they don't. This is time that could be used to assist walk-in students. It is not an issue if we aren't busy. But if the office is full of students and half of us are sitting here waiting for remote appointments to start and then the student doesn't show up – that is time we could have spent helping someone else.
4. How do we define and communicate expectations for students to engage in virtual advising services? Explaining what should be accomplished after attending the virtual meeting.
5. How do we define and measure the success of virtual advising services?

5. How do we define and measure the success of virtual advising services?
6. Does the College understand and incorporate advising practices that are not transactional for registration purposes? This is not an answer but a comment: Despite the wealth of info on the website, students are still confused about the admissions and advising process. There is a lot of ambiguity. When you apply to a major university, the process tends to be pretty cut and dried. Here it is more piecemeal. Our process is more flexible and better in many ways. But it causes extreme stress and frustration for many students.
7. What challenges are there for virtual vs. in person advising? See question 3 response
8. Does the College provide advising services that meets the needs of our students (time, modality)?
9. How do we establish baseline training and knowledge so that all advisors have a shared vision?
10. What technology or products are needed to maximize feasibility and efficiency? Ok, there is an idea formulating in my head but I can't quite verbalize it yet. It has to do with process and filtering, not advising per se.
11. What standards of virtual advising are being considered in the evaluation?

12. How will equity issues be considered in virtual advising evaluation? Not sure but this is an issue. In particular, I'm thinking a local student with the ability to come right in to the office on a minute's notice is in a much better position than a student that can't. And there are financial matters – one that comes up a lot is the cost of transcripts. Then again, sometimes students use things like cost of transcripts or transportation simply as an excuse to not have to follow the rules.

Comments:

→ Effectiveness and success go hand in hand, maybe use the word efficacy instead of success in question 5

→ Keep question 1

→ Inventory questions about who is involved in virtual advising, in what capacity, what modality/platform,

→ Institutional expectations about virtual advising

→ Legal considerations of virtual services

Finalized Evaluation Questions:

1. What are advisors and students' expectations of synchronous virtual advising services?
2. What are advisors and students' experiences with synchronous virtual advising services?
3. What resources are needed to maximize feasibility and accessibility of synchronous virtual advising services for advisors and students?
4. How do advisors measure the efficacy of synchronous virtual advising services?
5. What are the perceived benefits of synchronous virtual advising versus in-person advising for advisors and students?
6. What baseline training and knowledge is needed for advisors to implement synchronous virtual advising?

Activity 2: Establishing Evaluation Methods

Based on your finalized list of evaluation questions, how do you want to answer these questions? This activity aims to determine what evaluation methods will be utilized. Some methods have been noted based on prior workshop feedback. As you establish and refine evaluation methods, consider the following:

- Timeframe
- Location
- Participants/target populations or groups
- Resources/materials needed
- Marketing/communication
- Incentives

Method: Surveys

Participants: Faculty advisors, College Liaisons, Success Coaches, students
Modality: Electronic
Platform: Survey Monkey via REAP or Microsoft Forms
Timeframe: Early February
Incentives: ? Gift card drawing. Bookstore coupon?

Student Survey Questions:

1. Why would you choose to schedule a synchronous virtual advising meeting? What do you think you might get from an online advising meeting that you would not from and in-person advising meeting?
2. Have you ever attended a synchronous virtual advising meeting? Describe your experience.

3. Describe your ideal synchronous virtual advising meeting. How would you know that you had received high quality advising services?
4. What are the benefits of attending a synchronous online advising session versus coming for advising in-person?
5. What resources do you need to have a successful synchronous online advising meeting? ~EM Purple Font
6. Maybe a starting question: Have you had the following types of advising appointments (check all that apply): (Face-to-face, online synchronous (using Teams or Zoom), phone, e-mail).
7. In which of the following formats did you feel that you received the information and support you needed (check all that apply): (Face-to-face, online synchronous (using Teams or Zoom), phone, e-mail). (LB in green font)
8. How convenient/extensive do you expect your synchronous virtual advising session to be and what do you expect to gain from it?
9. Have you ever participated in a synchronous virtual advising session and if so, what was the experience like?
10. What exactly do you think you may need (types of resources) to participate in and have a successful synchronous advising session?
11. In what ways do you think/expect your advisor should measure how effective your synchronous virtual advising session is?
12. What do you think the benefits of a synchronous virtual advising session are compared to a traditional in-person session?
13. What kind of baseline knowledge do you think an advisor should have to best assist students in a synchronous virtual advising session?
14. I think something simple as a starting question like: Which do you prefer an in-person or virtual synchronous advising meeting and why?
15. Do you feel equally supported during a virtual advising meeting vs an in-person?

16. What would you like to happen or be able to do after this advising appointment?

16. On a scale of 1-10, which 1 being terrible and 10 being excellent, how would you rate the ease of signing into and navigating the virtual meeting?
17. How comfortable do you feel talking to your academic advisor in a virtual meeting compared to in person? (Give student options ranging from uncomfortable to more comfortable).
18. Without the option of virtual advising, would you struggle to attend in person advising? (Give options ranging from severely struggle to not at all).
19. Just a comment: "Synchronous" is a word we use amongst us. Many students don't know what this is. Could we find a different way to ask these questions…without using "synchronous?"

Employee Stakeholder Survey Questions:

1. Do you offer synchronous online advising services? Describe what that experience has been like for you and your students.
2. What are your expectations for synchronous virtual advising?
3. What do you want your students to gain from receiving advising in this format?
4. How do you measure the efficacy of the synchronous online advising service you provide to your students?
5. What do you see as the benefits of a synchronous online advising session versus an in-person advising session?
6. What resources do you need to provide synchronous online advising to your students?
7. What baseline training and knowledge do you need to offer synchronous virtual advising to your students?
8. What considerations or barriers might prevent you from using online synchronous advising?

9. How convenient/extensive do you expect a synchronous virtual advising session to be and what do you expect students to gain?
10. Explain what your experiences have been like when con synchronous virtual advising session?
11. What resources do you need as an advisor to maximize the feasibility and accessibility of synchronous virtual advising and what resources do you think students need to maximize feasibility and accessibility?
12. How should advisors measure the effectiveness of synchronous virtual advising sessions?
13. What benefits do you think synchronous virtual advising has that traditional in-person advising does not?
14. What kind of baseline knowledge do you think a student should have to be best assisted in a synchronous virtual session?
15. Do you feel that the information will be relayed the same in-person as it will virtually?

Method: Focus Group(s)

-An in-person focus group might be challenging, since many students who opt for virtual online advising do so because they aren't able to come in. What is the feasibility of having a virtual focus group? Would it be as effective as an in-person focus group?

Method: Work Session

-

Comments:

→