The experiences of leaders who transitioned to leading a virtual team during the COVID-19 pandemic: A phenomenological study.

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THE EXPERIENCES OF LEADERS WHO TRANSITIONED TO LEADING A
VIRTUAL TEAM DURING THE COVID-19 PANDEMIC: A
PHENOMENOLOGICAL STUDY

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A Dissertation
Submitted to the Faculty of the
College of Education and Human Development of the University of Louisville
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for the Degree of

Doctor of Philosophy
in Educational Leadership and Organizational Development

Department of Educational Leadership and Organizational Development
University of Louisville
Louisville, Kentucky

December 2023
DEDICATION

This dissertation is dedicated to my wife, Jessica, my son, Vahn, and my daughter, Mia, who have always been there to support and encourage me.
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I extend my sincere gratitude to all the members of my committee for their support that has been instrumental in guiding me through the successful completion of this academic journey. A special acknowledgment goes to Dr. Meera Alagaraja for her continuous encouragement and unwavering belief in me over the years. I am profoundly thankful to Dr. Brad Shuck and Dr. Ron Sheffield for graciously assuming the roles of my committee chair and co-chair, respectively, when the need arose. Their expertise and guidance played a pivotal role in the completion of this milestone. I would also like to express my appreciation to Dr. Andrew McCart and Dr. Tara McKinley for generously offering their time and support. The collective contributions of these esteemed individuals have been invaluable, and I am deeply appreciative of their commitment to my academic and professional development.
ABSTRACT

THE EXPERIENCES OF LEADERS WHO TRANSITIONED TO LEADING A VIRTUAL TEAM DURING THE COVID-19 PANDEMIC: A PHENOMENOLOGICAL STUDY

Jason W. Oliver

November 20, 2023

The COVID-19 pandemic led to organizations rapidly transitioning their workforces to virtual work settings. This sudden shift brought about many challenges to organizations and their employees. In this study, a phenomenological research approach was used to describe the lived experiences of leaders who transitioned to managing a virtual team during the COVID-19 pandemic. The study also explored how leaders adapted their leadership practices and leveraged people and technology when transitioning to managing a virtual team. The findings revealed seven themes that highlighted both benefits and challenges of virtual leadership and work. Leaders recognized the need for intentionality in their actions and they adapted their leadership styles to meet the unique demands of the virtual environment. Additionally, the importance and role of communication, technology, performance, and productivity in the virtual setting were described. The Input-Process-Output (IPO) theoretical framework provided a structured lens for understanding the dynamics of virtual teams. Recommendations for future research on virtual leadership and teams in a post-pandemic world were provided.
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CHAPTER I
INTRODUCTION

Coronavirus, also known as COVID-19, is an infectious disease caused by the SARS-CoV-2 virus and is generally associated with mild to moderate respiratory-related symptoms. However, in some individuals, such as those with underlying medical conditions, COVID-19 can lead to serious illness and require medical attention (World Health Organization, 2022). COVID-19 was first reported in China in late 2019 and began rapidly spreading to countries throughout the world. On March 11, 2020, the World Health Organization (WHO) characterized COVID-19 as a global pandemic. At the time there were 118,000 cases reported across 114 countries worldwide (World Health Organization, 2020). Since onset there have been over five hundred million confirmed cases that have resulted in over six million deaths, and even with more than twelve billion vaccine doses administered the world continues to combat COVID-19 daily (World Health Organization, 2022)

In response to the COVID-19 pandemic, governments worldwide issued various mandates that included wearing protective masks, physical distancing, and avoiding poorly ventilated spaces or crowds (Centers for Disease Control and Prevention, 2022). Businesses and employees were impacted by these mandates, which led to a rapid and unprecedented transition from traditional, brick-and-mortar to virtual, work-at-home arrangements (Klonk et al., 2022; Parker et al., 2022). This transition to virtual work was typically a mandatory requirement with little-to-no preparation or training. Virtual
work created new challenges for employees to cope with, such as technology issues and interruptions related to the home environment (Parker et al., 2020).

While organizations and employees have faced many challenges associated with the transition to virtual work due to COVID-19, it appears that virtual work will remain commonplace in many industries post-pandemic with numerous workers showing a desire for either full-time virtual work or hybrid work arrangements where employees would only be required to be onsite part of their work schedules and work at home the rest (Saad & Wigert, 2021). The number of employees that choose to work virtually increased 24% from 2021 to 2022 (Owl Labs, 2022). McKinsey & Company (2022) found that 58% of United States workers reported they can work virtually from home at least one day a week and 35% reported the option to work virtually full-time. The survey also found that 87% of respondents accepted flexible work arrangements when offered by their organization (McKinsey & Company, 2022). Workers place high value on flexible work arrangements which is supported by a recent survey where "1 in 2 (52%) workers said they would take a pay cut of 5% or more of their annual salary to have the freedom to choose where they work with 2% saying they would sacrifice more than 20% of their salary" (Owl Labs, 2022, p. 25).

Virtual work, also known as telework or remote work, is not a new concept and has been around long before the COVID-19 pandemic. Work-from-home policies can be dated back to the 1970s which resulted from the Organization of Petroleum Exporting Countries (OPEC) imposing an oil embargo in 1973 that increased the cost of commuting to work (Choudhury, 2020). Advances in technology including cellular phones, email, internet, laptops, personal computers, and videoconferencing led to an increase in virtual
work during the late 1990s and early 2000s. In recent years, prior to the global pandemic, many organizations allowed employees to work virtually, usually from their homes. The need for greater geographic flexibility, a global workforce, and reduction in travel expenses aided in the increase in virtual work arrangements for employees (Choudhury, 2020; Collins, 2014; El-Sofany et al., 2014). A 2012 survey conducted by the Society for Human Resource Management (SHRM) found that 46% of the organizations polled had virtual teams, and the results also showed that multinational organizations were twice as likely to employ virtual teams compared to organizations based in the United States (Minton-Eversole, 2012). Hoch and Dulebohn (2017) report similar pre-pandemic findings that about half of all organizations employed virtual teams. Global Workforce Analytics (2017) reported a 115% growth in virtual work arrangements from 2005 to 2015 in the United States.

Much of the research on virtual teams and virtual leadership prior to the COVID-19 pandemic centered primarily on organizations and employees that chose or were selected to work virtually. The employees represented in these studies typically worked on virtual teams that received adequate training and were technologically prepared for virtual collaboration and communication. Virtual work within the literature represented specific job functions, often related to technology-focused, project-based, or global work teams that would be considered “white collar” roles (Ale Ebrahim et al., 2009; Davenport & Pearlson, 1998; Lurey & Raisinghani, 2000; Malhotra et al., 2007; Mehtab et al., 2017; Staples, 2001; Zigurs, 2003). Prior to the global pandemic, the average age of virtual employees was 45 years or older, and most possessed a bachelor’s degree or higher (Global Workforce Analytics, 2017). Additionally, it has been noted that less research
exists on the management of virtual teams when compared to literature on traditional, face-to-face teams (Hoch & Kozlowski, 2014; Jarvenpaa, & Tanriverdi, 2003; Johnson et al., 2015).

**Statement of the Problem**

During the COVID-19 pandemic, many organizations found it necessary to rapidly move to virtual settings to conduct business activities that were previously performed in face-to-face office settings. As a result, employees had to transition to virtual, work from home settings with little notice or preparation (Galanti et al., 2021). The affected organizations had to restructure policies, procedures, and processes to accommodate the needs of this newly virtual workforce (Serenko, 2022). Investments were made to quickly expand information technology networks and infrastructure, virtual collaboration platforms, and hardware (Alashhab et al., 2021).

While virtual work is not a new concept, the COVID-19 pandemic was a catalyst that prompted a significant increase in number of organizations and employees engaged in virtual work. The employees and the organizations affected by the transition to virtuality faced new challenges and barriers due to the evolving structure of virtual work and the introduction of new and unique workplace dynamics. These challenges and barriers included time-management, blurred work-life balance, distractions, reduced supervision, changes to communication, changing performance metrics, social isolation, trust, motivation, network issues, career mobility, and job uncertainty (Charalampous et al., 2019; Morrison-Smith & Ruiz, 2020). This transition to virtual work impacted the way employees worked, how they learned, and how they communicated and collaborated.

Prior to the virtual work shift that resulted from the COVID-19 pandemic, meetings could be held among in-person groups in a designated space such as a
conference room within a brick-and-mortar location. This commonality allowed for pre-meeting and post-meeting banter, body language cues, and social interactions to occur in usual and comfortable environments. Outside of meetings, a leader could simply walk by an employee workspace and conduct a brief check-in or have a casual conversation without the need to schedule a meeting using technology (Karl et al., 2021). Some leaders expressed concern over the perceived lack of visibility and control they were accustomed to. Additionally, the employees displayed an increased sense of uncertainty and concern about how their productivity was being monitored and perceived (Newman & Ford, 2021).

**Purpose of the Study**

The purpose of this qualitative study was to describe the lived experiences of leaders who transitioned to managing a virtual team during the COVID-19 global pandemic. Since the onset of the COVID-19 global pandemic in early 2020, leaders and their teams from around the world have been required to rapidly transition and adapt to virtual work settings at an unprecedented rate. This transition to virtual settings has diverged from the more traditional concept of virtual work that is characterized and described within the literature prior to this shift that has resulted from the COVID-19 global pandemic. Therefore, this study also sought to explore how leaders have adapted their existing leadership practices and how they leveraged people and technology when transitioning to managing a virtual team. Specific areas that were explored included the benefits and challenges of virtual teams. Additionally, this study explored how leaders manage virtual teams in relation to leadership styles, skills, and traits as well as the role of communication, technology, and trust. A goal of this study was to present implications
for leaders transitioning to managing virtual teams and recommend future areas of research.

To explore this phenomenon the following research questions were posed:

1. How do leaders describe their experiences when transitioning to managing a virtual team during the COVID-19 global pandemic?
2. In what ways did leaders adapt their leadership and management practices when transitioning to managing a virtual team?
3. In what ways did leaders leverage people and technology differently when transitioning to managing a virtual team?

Key Terms

Information and communications technology (ICT). An umbrella term that refers to any communication application or device that includes cell phones, computers, networking devices, radio, television, and videoconferencing systems (Huth et al., 2017).

Leader. An individual in a role who directly supervises and manages other employees (Meza et al., 2021; Priestland & Hanig, 2005).

Phenomenology. A qualitative research method that describes the common meaning from multiple individuals derived from their lived experiences of a concept or phenomenon (Creswell, 2018).

Virtual leadership. Leading others in a geographically, temporally, organizationally, or otherwise dispersed environment using information and communications technology (Cascio, 2000; Hertel et al., 2005; Schmidt, 2014).

Virtual team. A group of individuals that are geographically, temporally, organizationally, or otherwise dispersed and collaborate using information and
communications technology to accomplish shared goals (Brandt et al., 2011; Malhotra et al., 2007; Zigurs, 2003).

Virtual work. A type of flexible working arrangement that allows an employee to work from a remote location outside of a physical office location using information and communications technology to communicate and collaborate with colleagues (Mihhailova, 2009). Also referred to as remote work, telecommuting, telework, or work from home.

Significance of the Study
The significance of this study relates to how leaders transition themselves and their teams to virtual settings with little to no preparation. The focus of this study is distinct from much of the prior research on virtual leadership and virtual teams due to the nature of the existing literature focusing on the study of virtual work in which participant is voluntary and selective. The capability of leaders to transition to virtual work and adapt to virtual environments may be necessary in the future resulting from other unprecedented situations like the COVID-19 pandemic or due to the changing nature of work that has resulted from the pandemic. This research provides insight into the challenges and struggles of leaders and their teams when transitioning and adapting to virtual work.

Researcher Positionality and Assumptions
In this study, assumptions were made to support the overall success and outcomes. In phenomenology, the research question derives from the researcher having a passionate interest in a topic (Moustakas, 1994). In this study, the researcher had an interest in the phenomenon in relation to having worked virtually in various roles.
The lived experiences of the leaders examined in this study is subjective and relies on the memory and interpretations of those interviewed. Using the interview approach, the researcher primarily used open-ended questions and built upon the responses to questions to further explore the experiences of the participants. In phenomenology, the researcher uses the interview to come as close as possible to understanding the true reality of the participant experience through a subjective lens (Seidman, 2013). The researcher, participants, setting, and procedures interact and influence one another in qualitative research. The researcher must rely on approaching the study using reflexivity to critically reflect on the awareness of oneself and their role in the situation (Glesne, 2016).

The interview process is a collaborative interaction between the researcher and the participant, and the meaning derived during the interview is a function of the interaction between the two. The interview process reflects the personalities of the participants, the personality of the researcher, and the interaction between these personalities. The researcher must recognize and affirm the possibilities of this interaction to minimize the misrepresentation that may result from the role of the interview in phenomenological research (Seidman, 2013). A semi-structured interview approach allows the researcher to begin with an initial set of questions but provides flexibility for the researcher to adapt and reform questions and use impromptu probing questions throughout the interview, as needed (Glesne, 2016).

In phenomenology, the researcher is considered an instrument, and it is understood the researcher interacted with the participants in the natural environment being investigated (Creswell, 2018; Moustakas, 1994). When conducting
phenomenological research, it is important for the researcher to refrain from judgment and be careful to avoid ordinary, everyday ways of perceiving the world. The researcher must attempt to invalidate, inhibit, and disqualify previous knowledge and experiences during the study (Creswell, 2018; Moustakas, 1994; Van Manen, 1997).

**Limitations of the Study**

The population sample for this study will be limited to leaders from a non-profit healthcare organization. Additionally, a convenience sampling method was used to address limitations with access to a broad, random sample of potential participants. When using a convenience sample, the researcher selects participants based on availability and readiness to be studied (Creswell, 2018). Additionally, the research relied on the experiences and viewpoints of individuals who were willing to voluntarily participate in the study and therefore, the findings may not generalize to all leaders.

The focus of the study is on a unique event that may not be replicable due to the nature of the phenomenon in relation to the COVID-19 pandemic. In phenomenology, the researcher is considered an instrument used in the data collection through their observations of the phenomenon and lived experiences of the participants (Creswell, 2018). The lived experiences and recollection of participants may be imperfect and potentially impact the findings (Moustakas, 1994). Qualitative research is time consuming, and time can be a constraint on the research in addition to the reliance on the researcher to analyze a significant amount of data to interpret meaning (Creswell, 2018; McGrath et al., 2019).

The participant interviews were conducted using the Zoom video conferencing platform and may be perceived as a limitation of the study. Face-to-face, in person interviews have been the primary method of data collection used within qualitative
research (Cater, 2011; Lo Lacono et al., 2016). It has been suggested that establishing rapport and observing nonverbal cues may be more difficult in virtual or internet-mediated formats (Cater, 2011; Lo Lacono et al., 2016). Hesse-Biber and Griffin (2012) advise that body language, gestures, and tone of voice provide additional richness to qualitative data and may be more difficult to observe in virtual or internet-mediated formats. However, Archibald et al. (2019) found that researchers and participants described using Zoom for qualitative data collection in positive terms that are attributed to convenience, ease of use, interactivity, security, and specific platform features including screen sharing and recording options. Archibald et al. (2019) suggest that “Zoom may serve as a highly suitable platform for collecting qualitative interview data when compared to other commonly used VoIP technologies.” (p. 7). It is also predicted that Zoom will continue to be used for interviews in qualitative research long beyond the necessity that resulted from COVID-19 restrictions and safety concerns (Oliffe et al., 2021).

Summary

This chapter included an introduction to the topic, a statement of the problem, and the purpose of the study. Additionally, key terms, significance, researcher positionality, assumptions, and limitations of the study were discussed. The COVID-19 pandemic has had an unprecedented impact on the nature of work and has resulted in an exponential increase in virtual work that will have a long-term effect on the future of work around the world. Chapter Two provides a review of the literature on virtual leadership and virtual teams. Chapter Three describes the methodology of the study including the rationale for selecting a phenomenological research approach. Chapter Four provides a detailed description of the data analysis and findings. Finally, Chapter Five includes a discussion
of the interpretation of the findings, future areas of research, and concluding summary of the study.
CHAPTER II

LITERATURE REVIEW

The purpose of this phenomenological study was to explore the lived experiences of leaders who transitioned to managing a virtual team during the COVID-19 global pandemic. The goal of this section is to provide a comprehensive review of literature related to virtual teams and managing virtual teams. The review is divided into multiple sections that highlight fundamental concepts found within the research on virtual teams and the management of virtual teams. This chapter begins with an overview of the methods used to search the existing body of literature to conduct this literature review. Next, a summary is provided of how virtual teams are defined within existing literature. The chapter continues with a review of challenges faced by virtual teams, including challenges associated with the COVID-19 global pandemic, and an exploration of the benefits associated with virtual teams. The next sections provide a review of literature related to virtual leadership and managing virtual teams including a review of best practices and how culture, leadership styles, skills, and traits impact virtual team outcomes and performance. The importance and role of trust, technology, and communication among virtual teams is examined. Finally, the theoretical framework for the study and a summary of the literature review findings is presented at the end of this chapter.
Methods of Searching

A comprehensive literature review was conducted that included seminal and current relevant literature drawing from scholarly, peer-reviewed articles, books, and practitioner sources. Literature searches were conducted using a combination of Google Scholar and the University of Louisville library using EBSCO, Elsevier, JSTOR, and ProQuest databases. The keyword criteria used when conducting the electronic searches included various combinations of three categories of terms consisting of virtual leadership, virtual teams, and virtual work. Due to the multiple ways scholars and practitioners describe the virtual work phenomenon being studied the search combinations substituted the terms remote, telework, telecommute, and virtual to capture a wide breadth of literature. Empirical and meta-analytic articles were reviewed for relevance to the proposed research questions. Those articles that did not address virtual leadership or virtual teams were excluded unless found pertinent to explain and support the understanding of fundamental concepts related to the phenomenon being studied. Additionally, the reference sections of reviewed articles were canvassed for additional articles that would be relevant to include within this review. Finally, the review included works by seminal authors whose research was referenced in multiple sources.

Defining Virtual Teams

Zigurs (2003) defines the virtual team as a “collection of individuals who are geographically and/or organizationally or otherwise dispersed and who collaborate via communication and information technologies in order to accomplish a specific goal” (p. 340). While virtual teams typically possess common goals and rely on technology, team members must still address coordination while being dispersed across various dimensions, including geographical, temporal, organizational, work process, and cultural
It is important to keep the definition broad when describing virtual teams to account for distinct types of a team arrangements which may include temporary project-based teams or long-term teams that are similar to more traditional face-to-face team arrangements (Zigurs, 2003).

Malhotra et al. (2007) define virtual teams as having members that are geographically distributed, required to collaborate using electronic means with little face-to-face interaction, often tasked with working on highly interdependent tasks, and possessing a shared responsibility for team outcomes. Lurey and Raisinghani (2000) explain that virtual teams are simply groups of people working together that are typically distributed across time and space and may be dispersed across organizational boundaries as well. Brandt et al. (2011) offer the definition that virtual teams are groups of individuals working together to accomplish a goal or project but do not meet face-to-face and instead interact through online collaboration platforms. For the purposes of this study, a virtual team is defined as a team whose members communicate and collaborate across distance to accomplish common goals (Cramton & Hinds, 2004; Gibson & Gibbs, 2006; Hinds et al., 2011; Hoch & Kozlowski, 2014).

Challenges and Benefits of Virtual Teams

Challenges of Virtual Teams

According to Rod (2012) at least 69% of the challenges faced by virtual teams are due to individual behaviors and a lack of personal relationships. Additionally, those interacting in virtual team settings experience challenges including lack of physical interaction, lack of social interaction, loss of face-to-face synergies, and lack of trust (Phelps, 2014). Malhotra et al. (2007) suggest that virtual teams can be especially at risk for issues with trust, communication, conflict, and power. The exchange of information
and coordination of tasks can be more difficult when team members are unable to meet face-to-face which may lead to issues related to team cohesion, knowledge sharing, shared leadership, and trust (Carte, Chidambaram, & Becker, 2006; Gilson, et al., 2015; Jarvenpaa, & Tanriverdi, 2003).

Within the literature, performance and process losses were identified as being more common in virtual teams in comparison to co-located teams (Ferrazzi, 2014). An early study found that over 80% of virtual teams failed to complete their goals and one-third rated their teams as largely unsuccessful (Govindarajan & Gupta, 2001). A Deloitte study from 2005 found that 66% of virtual project teams failed to meet the requirements of their clients and 44% of the virtual team members believed their communication was less effective than face-to-face communication (Ferrazzi, 2014). Increased physical distance between virtual team members has been shown to negatively impact team engagement and performance. A negative impact on virtual team outcomes and processes has been attributed to the geographic distance among team members (Hoch, 2019).

Examples of the major challenges to virtual teams early in the literature were attributed to the productivity of virtual employees and how to keep virtual employees connected to the organization and culture (Davenport & Pearlson, 1998). de Guinea et al. (2005) found that coordinating activities and communicating was difficult for virtual teams. The monitoring of the behaviors of virtual team members was also found to be difficult due to geographic distribution (de Guinea et al., 2005). Leaders have cited difficulties with engaging, monitoring, and motivating team members as reasons to why managing virtual teams can be more difficult than managing co-located, face-to-face teams (Gilson, et al., 2015; Hill & Bartol, 2016; Hoch & Kozlowski, 2014; Purvanova &
Bono, 2009). Leaders also find it difficult to determine the best practices and techniques to manage virtual teams (Carte, Chidambaram, & Becker, 2006; Gilson, et al., 2015; Jarvenpaa, & Tanriverdi, 2003). About 49% of employees believe their leaders view co-located office workers as more trustworthy and harder working than virtual workers (Owl Labs, 2022).

Employees engaged in virtual work have cited difficulties with establishing common ground with other employees, and when communicating through audio only conferencing it can be difficult to recognize who is speaking when the participants do not know each other well and encounter issues with talking over one another (Gilson et al., 2015). Virtual teams may also encounter conflicts related to communication, collaboration, and scheduling when team members are spread across different time zones and national boundaries (Hoch, 2019). However, advances in technology have helped to alleviate these early concerns over how organizations keep employees connected and communicating effectively (Garro-Abarca et al., 2021). Additionally, advances in technology have allowed organizations to have better methods to monitor the productivity of virtual employees (Staples, 2001).

Taskin and Bridoux (2010) concluded that knowledge transfer between virtual and non-virtual employees is often hindered and may lead to a negative impact on an organization’s knowledgebase. This threat to organizational knowledge is not often recognized due to the focus on short-term gains associated with virtual work, including higher productivity, and lowered operating expenses. It was also found that virtual work reconfigures employment and managerial relationships with the worker. Additionally,
virtual employees may develop new and alter existing routines when interacting with non-virtual employees (Taskin & Bridoux, 2010).

Agarwal et al. (2020) found that challenges related to onboarding new virtual employees included task delegation, knowledge transfer, and process understanding. Additional challenges to onboarding virtual employees related to a lack of in-person orientation, building trust, and being able to interact with team members both inside and outside of work (Agarwal et al., 2020).

**Challenges Related to the COVID-19 Pandemic**

The rapid transition to virtual work during the COVID-19 global pandemic led to unanticipated challenges for organizations and leaders (Levenson & McLaughlin, 2020). Leaders were challenged with adapting and altering how they measure performance and accountability of the employees and teams that shifted to virtual work settings. Employees were able to be more invisible to management, and leaders were faced with the challenge of how to recognize and reward employees in the virtual environment. Leaders and employees were required to adapt to a new work setting that disrupted existing personal and professional rituals. The flexibility of virtual work made it necessary for individuals to develop new rituals (Levenson & McLaughlin, 2020). Additionally, due to the stay-at-home mandates in place during the COVID-19 pandemic, newly-virtual employees encountered additional responsibilities related to providing care and educational support to their children within the home (Agarwal et al. 2020).

Existing means to communicate and interact with coworkers also changed (Levenson & McLaughlin, 2020). Conflict had to be managed differently since body language, facial cues, and physical gestures were not present or more difficult to observe with increased reliance on communication technologies including chat, email, and video
conferencing (Agarwal et al., 2020). Leaders and employees had to cope with workplace tasks and duties in a new and unfamiliar virtual setting while often relying on technology. For example, healthcare workers were required to communicate with patients through online and video conferencing platforms. The ability to communicate and collaborate with others virtually required employees to learn and develop skills, especially those who typically did not rely on computers prior to transitioning to virtual work (Agarwal et al., 2020).

At the time of writing this review, another challenge teams face after having transitioned and adapted to virtual work is being required by their organizations to return to the office (Cutter & Bindley, 2022). Owl Labs (2022) report that 41% of small organizations with 10-50 employees are requiring their employees to return to the office in comparison to only 27% of larger organizations with over 10,000 employees. Organizations cite students returning to school, a decline in COVID-19 cases, and the lifting of COVID-19 related safety precautions as an ideal catalyst to move workers back to the office. It is referenced that employees are becoming more accustomed to living and functioning with the risk of COVID-19 exposure which is perceived as less of a deterrent to returning to the office. Additionally, the possibility of unemployment due to organizations reducing positions resulting from ongoing profit loss and rising inflation may prompt employees to return to the office more easily or accept non-virtual employment offers (Cutter & Bindley, 2022).
Benefits of Virtual Teams

There are many benefits associated with virtual teams described within the literature. Some of the benefits include lessened employee relocation time and costs, reduced travel expenses, diminished costs related to maintaining physical office space, decreased operating expenses, improved customer service, better access to global markets, and a reduced carbon footprint and environmental impact including lessened use of natural resources, highways, and airports (Ale Ebrahim et al., 2009; Bharathi et al., 2019; Hoch, 2019; Snyder, 2012). Having fewer employees in physical office locations can reduce organizational costs associated with bills, maintenance, rent, repairs, supplies, and travel (Bloom et al., 2015). Virtual work contributes to a reduction in greenhouse gas emissions, thus reducing global pollution due to less employees needing to commute to work each day (Global Workforce Analytics, 2017).

Virtual teams can more easily overcome limitations of time and space in comparison to traditional, face-to-face teams (Lurey & Raisinghani, 2000; Piccoli et al., 2004). O’Neill and Wymer (2011) found that organizations who implemented virtual work to replace traditional, face-to-face workspaces saw an average cost savings of 33% within the first year and continued savings after. Bloom et al. (2015) noted the organization included in their study saw a $2,000 increase in profit per virtual employee. It was also discovered that implementing virtual work led to enhanced job satisfaction with over two-thirds of employees being more satisfied with their roles and work after their organization implemented virtual work arrangements (O’Neill & Wymer, 2011).

According to Snyder (2012) more than one-third of Americans would rather work virtually than receive a pay increase. A more recent survey conducted during the COVID-19 global pandemic found that 64% of employees would rather work virtually from home.
than receive a raise (Allcot, 2021). The survey polled over 3,000 employees from 45 organizations that included Amazon, Apple, Cisco, Facebook, Google, Microsoft, Zillow Group, and others in which respondents cited reasons included saving money from reduced expenses, higher productivity from not having to work in an open office layout, and having more time and energy (Allcot, 2021). Similarly, Owl Labs (2022) reported 66% of virtual employees state they would immediately begin looking for other work options and 39% would quit their jobs if their organization removed the ability to work virtually. Bloom et al. (2015) observed a reduction in employee attrition by over 50% once employees were allowed to work virtually. Virtual work allows employees more flexibility in their personal and professional lives and creates opportunities for workers to collaborate and interact with co-workers from different geographic areas that may not be possible among traditional, co-located teams (Hoch, 2019).

Virtual work provides cost savings to the employees as well. Hybrid employees reported about $20 a day in savings when working virtually compared to going into the office (Owl Labs, 2022). Beno (2021) found cost savings for virtual employees related to housing, commuting, and additional expenses such as food and drink. Housing cost savings results from virtual employees being able to move to less costly regions. Virtual employees can save time and money by not having to commute to and from a physical work location. Additionally, virtual employees may see cost savings by preparing food and drinks at home instead of purchasing items at work or on the way to and from work (Beno, 2021). Global Workforce Analytics (2017) reported the average annual income for virtual employees was around $4,000 more than their office-based counterparts.
Implementing virtual work options allows organizations to recruit employees outside of traditional geographic barriers and across different states and countries (Morrison-Smith & Ruiz, 2020; Neeley, 2015). The implementation of virtual work options for employees can also increase the attractiveness of an organization to younger prospective candidates (Dinh et al., 2014; Eseryel, & Eseryel, 2013; Ferrazzi, 2014). Virtual work options help to attract the top talent from different geographic areas without the need for employees to relocate (Hoch, 2019). Employers can increase their job pool and reach talent that possess more specialized skills by offering virtual work arrangements (Grensing-Pophal, 2021). By attracting motivated employees and improving job satisfaction organizations can improve their ability to retain specialized and top talent through the implementation of virtual teams and virtual work options (de Guinea, Webster, & Staples, 2012; Dulebohn & Hoch, 2017; Gibbs, Sivunen, & Boyraz, 2017; Gilson et al., 2015).

Collaboration, knowledge sharing, and innovation have been found to improve among virtual teams (Bharathi et al., 2019). Virtual teams also show less resistance to change and more cohesion among team members (Ale Ebrahim et al., 2009). Increased performance improvement and commitment to the organization have been cited as gains to the organization (Hunton & Norman, 2010). Owl Labs (2022) found that 62% of employees feel more productive when working virtually. O’Neill and Wymer (2011) found the implementation of virtual work had a positive influence on employees’ perceived work effectiveness with 80% of those surveyed expressing that virtual work improved their individual job performance. Bloom et al. (2015) found a 13% increase in performance when employees transitioned to virtual work that was attributed to a 4%
higher performance per minute of work and a 9% increase in the number of minutes worked overall. It was also reported that psychological attitude and job satisfaction scores were significantly higher among virtual employees than non-virtual employees (Bloom et al., 2015). Additionally, a study by Siebdrat et al. (2009) found that well-managed virtual teams can outperform co-located teams in an office.

**Leading Virtual Teams**

**Best Practices and Support**

Malhotra et al. (2007) identified six practices associated with effective virtual leaders. These practices include themes related to trust, diversity, external visibility, individual benefits, managing work, and monitoring progress. Leaders should use communication technologies to build and support trust among virtual teams. The development of communication norms can help to support the practice of trust building. It is important that members of virtual teams understand and appreciate diversity. Therefore, leaders should also focus on establishing practices related to diversity such as encouraging diverse opinions and creating a team member skills matrix. Virtual leaders can improve the effectiveness of their teams by managing work-cycles and meetings and including activities such as in-meeting checks in to encourage all team members to be engaged and heard as well as end-of-meeting activities to recap important takeaways and plan next steps. Team progress can be monitored synchronously and asynchronously using appropriate technology. To enhance the external visibility and recognition of team members, leaders can provide and report out accomplishments, awards, praise, and project updates to team members and other stakeholders (Malhotra et al., 2007).

Greer and Payne (2014) suggest that leaders should be equipped to respond to individual and organizational changes associated with virtual work arrangements to
benefit both the worker and the organization. They believe that leaders are integral to properly equipping virtual employees with the tools necessary to be effective and play a significant role in fostering an organizational culture that supports all workers. However, it was concluded that only 21% of leaders are formally trained in techniques to manage virtual teams. Interestingly, only 17% of virtual employees had received formal training on how to be successful and effective in virtual work arrangements. Better use of technology is highly needed to properly facilitate virtual work and team environments, but an organizational culture that promotes and fosters virtual work is key (Greer & Payne, 2014). Snyder (2012) asserts that leaders can better measure success by developing metrics that examine the impact of virtual work from both operational and societal viewpoints.

Snyder (2012) lists a series of best practices for managing virtual teams. First, effective leaders must be aware of individual differences, and adapt their leadership style to meet the needs of the employees. Second, leaders need to anticipate the need for connectedness by examining current pitfalls and potential areas of breakdown and conflict. Third, it must be made a priority to stay connected with all workers and ensure that everyone has the training and technology necessary to contribute to the organization and be successful. Finally, leadership must set goals, inspire employees, and keep employees informed (Snyder, 2012).

Kilcullen et al. (2021) provided insight for virtual leaders, including practices that can be implemented among new and rapidly deployed virtual teams. The practices focused on norm setting, performance monitoring, training, communication, flexibility, and support. The importance of establishing norms, including norms specific to
communication and collaboration, was recommended. Norms should be reinforced and revisited through policy and procedures. A team charter can be used to promote inclusion and set expectations. Leaders can engage in check-ins to monitor performance and provide feedback, and the check-ins should utilize appropriate technology such as video conferencing and messaging applications (Kilcullen et al., 2021).

Support mechanisms and systems, including charters, team building activities, and feedback, can be used to help manage virtual teamwork. Feedback and input from team members should be welcomed while the leader promotes a psychologically safe environment. Technology can be leveraged to promote closed-loop communication, and each member of the virtual team should have accountability for the frequency, quality, timeliness, and content of communications. Additionally, leaders need to establish flexibility among the virtual team to adapt to necessary changes, including flexibility with work schedules and meetings to accommodate the work-life balance of team members. Finally, it is suggested that virtual leaders should invest in training to ensure they have the adequate skills to lead virtually and by example (Kilcullen et al., 2021).

Mehtab et al. (2017) provide several recommendations for virtual leaders related to coordination, communication, recognition, skills, inclusion, and technology. Leaders should work to promote trust and cohesion through the identification of common team goals and objectives. Tasks and roles should be defined, assigned, and monitored by the leader. The virtual leader should establish internal and external communication standards for the team that can help to lessen misinterpretation. Appropriate work tools and communication technologies should be selected, but flexibility should also be provided to accommodate individual needs. Leaders need to provide recognition to team members.
using methods that include gifts, monetary incentives, and certificates that acknowledges performance and reassurances a sense of importance and purpose. Team directories and skill matrices can be implemented to promote individual contributions and expertise. Finally, the virtual leader can enhance the effectiveness of the team by promoting an environment where each member is valued and has an equal opportunity to contribute, learn, and develop (Mehtab et al., 2017).

Shachaf and Hara (2005) provide four components of effective virtual leadership. These include communication, understanding, role clarity, and attitude. Virtual leaders should engage in regular communication with employees, clarify tasks, and provide continuous feedback. It is also recommended that leaders convey interest, establish rapport, and express a sense of understanding to demonstrate they are sensitive to the schedules, opinions, and needs of employees. Role clarity relates to how well a leader defines responsibility, mentors, and establishes authority. Virtual leaders should also demonstrate a positive attitude and establish a level of assertiveness while balancing a stance that is caring and relatable to the team members (Shachaf & Hara, 2005).

Organizations with effective virtual leaders tend to view virtual work as an opportunity instead of a weakness or burden (Contreras et al., 2020). Virtual work can be advantageous to productivity within the organization and to its employees. It can also press the organization to adjust and restructure policies and procedures leading to a reduction of organizational hierarchy and improvements to organizational competitiveness. In turn, an effective virtual leader must be able to lead their team to accomplish organizational goals while maintaining an authentic interest in the well-being of their team members (Contreras et al., 2020).
Efimov et al. (2020) found that many virtual leaders value employee well-being and show a health motivated awareness for themselves and their employees. A focus on physical activity was often mentioned as a health-oriented behavior that virtual leaders engage in. Additionally, these leaders describe building trust, communicating, and showing support as behaviors related to employee well-being. It was also found that leaders who focus on their own health, typically value the health of their employees just as highly. Virtual leaders believe that flexible working conditions, organizational leadership support, and a health-oriented culture all contribute to being able to promote employee well-being (Efimov et al., 2020).

**Culture and Environment**

Feitosa and Salas (2021) suggest that virtual leaders need to foster an environment of inclusion. Creating a culture of inclusion may require occasional face-to-face interactions, if possible. There can be significant diversity among virtual team members and personal and home contexts may differ. Team members may have different home situations and different technology constraints, including equipment and network capabilities. The virtual leader must help ensure that each team member has an opportunity to be heard (Feitosa & Salas, 2021).

Employees who transition to virtual work will have different comfort levels collaborating in the virtual environment and using the associated technologies (Feitosa & Salas, 2021). Team members may not be entirely comfortable with unmuting and speaking in meetings and leaders must recognize this. Virtual employees may feel a sense of isolation or detachment in the virtual environment. A leader can help promote an inclusive culture and assist with such issues by promoting a psychologically safe environment. Leaders can help to foster an environment that encourages team members...
Leadership Styles

Hoch and Kozlowski (2014) suggest the leadership style of the leader in virtual team settings is important to help support the effectiveness of the team, while minimizing coordination and motivation shortfalls. Sedrine et al. (2021) found that trust and operational cohesion play a mediating role between leadership styles and team performance. Leadership styles also impact operational cohesion and group trust according to the level of media richness, thus creating different situations that vary according to the level of media richness used by the virtual team (Sedrine et al., 2021).

Literature indicates the transformative leadership style is beneficial to virtual teams that rely on technology-based communication (Purvanova & Bono, 2009; Ruggieri, 2009). Transformational leadership is defined as the “process whereby a person engages with others and creates a connection that raises the level of motivation and morality in both the leader and the follower” and is “attentive to the needs and motives of followers and tries to help followers reach their fullest potential” (Northouse, 2019, p.264). Kark et al. (2003) state transformational leadership is centered on four primary factors that include idealized influence, individualized consideration, inspirational motivation, and intellectual stimulation. Transformational leaders place the interests of the team first and support their teams by encouraging respect, fostering pride, exploring innovative ways to solve problems, and becoming role models (Ruggieri, 2009). Leaders who increased their transformational leadership behaviors in virtual team settings led to higher levels of team achievement and performance (Purvanova & Bono, 2009). Transformational leadership is found to be more suitable to virtual settings than a transactional leadership style and is
accepted and judged better by the team than transactional leadership. Additionally, leaders that demonstrate characteristics of a transformational leadership style are associated with more positive adjectives and are viewed as more creative, intelligent, and original (Ruggieri, 2009). It has also been demonstrated that interactional leadership, a hybrid of transactional and transformational leadership, has a positive relationship on team outcomes (Hoch, 2019).

Research also shows that in virtual teams, leadership can be distributed among multiple team members. Instead of having a single leader, virtual teams often have several leaders that emerge (Hoegl & Muethel, 2016; Robert & You, 2018; Ziek & Smulowitz, 2014). Hoch and Dulebohn (2017) describe this shared leadership style as a collective leadership process in which multiple team members may step in to take lead at times and contribute to the leadership functions of the team. In shared leadership each team member is included in decisions about the team, which promotes inclusion and improved experiences of the team members (Shuffler et al., 2010). Shared leadership benefits virtual teams since it fosters collaboration that leads to increased trust and knowledge sharing across the team (Hill, 2005). Hoch and Dulebohn (2013) also suggest that shared leadership promotes a positive team experience and enhances team performance. Additionally, shared leadership was found to be positively linked to a constructive interaction style and negatively linked to a defensive interaction style (Balthazard et al., 2004)

**Leadership Skills and Traits**

Agota et al. (2018) assert that leaders should possess traits related to being competitive, confident, supportive, and visionary. However, virtual leaders may face unique challenges that are not as common to traditional, face-to-face team leaders, and
therefore, may require additional skills and traits to complement the virtual environment (Johnson, 2010; Ziek & Smulowitz, 2014). A primary skill noted within the literature is the ability of the virtual leader to communicate effectively (Berry, 2011; Kayworth & Leidner, 2002; Roy, 2012; Ziek & Smulowitz, 2014). Communication is a primary method in which the virtual leader can establish their role and responsibility within the virtual team (Ziek & Smulowitz, 2014). Roy (2012) explains that a virtual leader must communicate clearly and concisely, and ensure their message is understood by all members of the virtual team. Leaders can stimulate communication by setting new team norms, making transparent decisions, and empowering others to participate which can lead to virtual team synergy and stability (Feitosa & Salas, 2021).

It is recommended that virtual team leaders possess skills necessary to manage team conflict and diffuse tense situations (Brake, 2006; Roy, 2012). Additionally, Roy (2012) indicates that virtual leaders, especially global virtual leaders, may require skills to address matters related to language and cultural differences and barriers. Virtual leaders must address various frustrations among their teams which can include issues related to communication, technology, and culture (Brake, 2006; Cleary & Marcus-Quinn, 2008; Roy, 2012). It is important for virtual leaders to focus on a locus of results and achievements of their teams and focus less on a locus of time (Cascio, 2000).

Another skill important to being an effective virtual leader is emotional intelligence. Virtual leaders need to have a sense of self-awareness to assess and understand how their behaviors impact the behaviors of the virtual team members. They must also be able to self-regulate and evaluate potential outcomes prior to acting. Leaders must motivate their team members, show empathy, and build relationships. Being
emotionally intelligent allows the virtual leader to promote knowledge sharing, building trust, and solving problems (Roy, 2012).

**Trust**

Trust helps to hold teams together and it is important for leaders to establish a sense of trust among their teams (Sarker et al., 2003). A greater sense of trust and openness is associated with improved virtual team performance (Zaharie, 2021). Cascio and Shurygailo (2003) view trust as being a more critical component among virtual teams than in traditional, face-to-face team environments. Trust is necessary for the cohesion and success of virtual teams (Child, 2001; Ferrell and Kline, 2018; Sarker et al., 2003).

Sarker et al. (2003) found three streams of thought on trust relevant to virtual teams. These include personality-based, institutional-based, and cognitive trust. Personality-based trust resides at the individual level and develops in relation to the trusting nature of the individual. Since trust relates to one’s personality, a source of trust stems from the personality of the virtual team members. Institutional-based trust relates to the degree that an individual believes in the norms and procedures of the organization. Therefore, the norms and rules of the organization guide the behaviors of the employees within the organization. Cognitive trust is developed from social cues and interactions with other virtual team members (Sarker et al., 2003).

Virtual leaders can encourage and promote trust by finding ways to inspire and motivate team members and by setting clear expectations. Gains in trust can help to improve the overall performance of the virtual team (Cascio & Shurygailo, 2003; Jarvenpaa et al., 1998). Leaders can also improve trust by fostering regular and continuous communication within the virtual team which helps to reassure team members and build confidence. If trust within the team is lacking, regular and continuous
communication can also help to promote collaboration and transparency (Germain, 2011). Virtual teams whose members have an elevated level of trust are more likely to engage in risk-taking behaviors that lead to team excellence (Ferrell & Kline, 2018).

Literature on virtual teams has focused on the importance of establishing trust (Altschuller & Benbunan-Fich, 2010; Feitosa & Salas, 2021). However, Feitosa and Salas (2021) explain that current teams have already formed a sense of trust, but existing trust may be affected by the transition to virtual collaboration. Instead of the need to build trust, these teams may need to focus on maintaining and monitoring trust with reduced opportunity for observation. In virtual settings, indicators of trust may change for the team members. A lack of response or discrediting a coworker may be viewed as a trust issue. Leaders can monitor trust by paying attention to how team members interact with one another and by maintaining shared tasks (Feitosa & Salas, 2021).

Ferrell and Kline (2018) explain that barriers to trust among virtual teams are contextual in nature and often arise from challenges associated with geographical separation. This can result in team members feeling varied levels of connection to the team. Time zone is a situational factor that can limit communication among virtual team members. Trust in virtual teams can also be impacted by limited visibility to team members’ work and contributions. The lack of face-to-face interaction and limited non-verbal cues can lead to uncertainty and concern of unjustified criticism. Another barrier to trust in virtual teams is the reduced opportunities for informal interactions which can limit the ability to build rapport and increase the likelihood of rifts among team members (Ferrell & Kline, 2018).
Virtual teams typically have little to no in-person, face-to-face interactions and mostly rely on electronic media technologies that include chat, email, phone, shared calendars, social media, texting, videoconferencing, and voicemail. Surprisingly, only 36% of organizations have upgraded video conferencing technologies since the beginning of the COVID-19 global pandemic (Owl Labs, 2022). Media richness theory is one approach that can be applied in relation to electronic communication and technology used by virtual teams (Hoch, 2019). Media richness theory involves “the effective use of a communication channel (medium) by matching the richness of a medium and the equivocality of task” (Ishii et al, 2019, p.124). The theory implies that richer communication mediums tend to be more personal in nature due to the presence of body language, physical gestures, voice inflection, and nonverbal and verbal cues (Hoch, 2019). Virtual teams that utilize rich communication mediums may encounter fewer misinterpretations and misunderstandings than virtual teams that rely on low media richness mediums to communicate. In addition to ensuring virtual team members have access to appropriate and rich communication technologies, leaders need to recognize the collaboration and technology readiness of their team members. Collaboration readiness is how willing team members are to share ideas and work together, while technology readiness is the capability and motivation of team members to use communication technologies (Hoch, 2019).

In relation to virtual teams, technology, or specifically, information and communications technology (ICT), is viewed as an input that supports team communication and performance (Avolio & Kahai, 2003; Hertel et al., 2005). Multiple studies have found that technology can have a negative impact on virtual team
performance (Schweitzer & Duxbury, 2010; van der Kleij et al., 2009). However, Hyo-Joo et al. (2011) found that technology had no impact on virtual team performance. Andres (2012) noted that technology-based collaboration led to a delay in the exchange of information, an increase in disjointed communications, and a general reduction in individuals requesting information. However, large virtual teams were able to overcome communication challenges easier than large face-to-face teams (Lowry et al., 2006; Lowry et al., 2010). Ferrell and Kline (2018) explain that due to geographical separation, technology facilitated communication is critical to the work performed by virtual teams. Virtual communication can be profoundly different from communication found in face-to-face, office settings. Due to this difference, virtual teams must develop effective communication strategies that rely on technology to promote optimal performance (Ferrell and Kline, 2018).

Within virtual teams, the presence of social loafing decreases with the use of rich ICTs (Bryant et al., 2009; Gilson et al., 2015). The use and ease of ICTs is also related to the overall satisfaction of virtual team members (Chi et al., 2012; Gilson et al., 2015). Interestingly, Anderson et al. (2007) found that virtual communication was mostly similar across the organization regardless of organizational status. Kock and Lynn (2012) saw gains in virtual team efficiency and effectiveness with the use of ICTs. Additionally, the use of ICTs can reduce challenges that virtual teams face in relation to task complexity (Kock & Lynn, 2012).

A concern associated with virtual teams is how leaders effectively monitor the performance of team members (Feitosa & Salas, 2021). Monitoring task performance can be helpful, but effective virtual teams also excel at teamwork. In virtual settings, it can be
easy to ignore requests and provide delayed responses. However, the virtual leader can leverage communication strategies and technology to assess teamwork behaviors, provide continuous feedback, ensure team members’ concerns are heard, and support strong collaboration. It is recommended that leaders set goals and debrief their teams in virtual settings, instead of attempting to micromanage (Feitosa & Salas, 2021). Virtual employees want their leaders to be hands-on, present, and understanding, but not intrusive or micromanaging (Krishnamoorthy, 2022).

Hambley et al. (2007) found that communication related to ICTs have important effects on virtual team interaction styles and cohesion. Virtual team cohesion and collaboration was higher in teams that communicated using videoconferencing technology than teams that relied on chat technology (Garro-Abarca et al., 2021; Hambley et al., 2007). Initial instructions are not always sufficient in virtual environments, and therefore, the frequency and quality of communication is vital among virtual teams. Communication within virtual teams is improved with optimal use of collaborative ICTs (Garro-Abarca et al., 2021). Hoch (2019) explains that being able to communicate using video-based ICTs allows virtual team members to establish common ground more easily by being able to observe subtle visual cues that allow for team members to better understand one another. Issues with technologies deployed to virtual teams are mostly attributed to team members being unfamiliar with a particular ICT or an improper matching of ICTs to a specific situation (Ferrell and Kline, 2018).

To encourage engagement and communication among virtual employees, Castillo (2021) suggests that ICTs can be used to promote “fun” activities and social events. These types of activities and events can also help to boost team morale by showing pets
using videoconferencing, sharing music and playlists, conducting themed meetings, and organizing virtual lunches or coffee and tea breaks. Other activities to facilitate with virtual teams using ICTs include cooking challenges, physical activity, motivational quotes or reflections, weekend recaps, themed dress up events, and chair or home office dance offs. Castillo (2021) found that 59% of participants stated that employee engagement happens outside of formal training events and meetings through socializing via collaboration and communication tools like Microsoft Teams, Skype, and Zoom. Additionally, 64% of participants stated they wanted their employer to plan motivational and “fun” events where they could interact with other employees and leadership using ICTs (Castillo, 2021). In virtual settings, leaders and coworkers are unable to “walk up” to coworkers to make small talk, share ideas, and collaborate. A way that leaders can avoid process loss is to offer training. In relation to the rapid transition to virtual work during the COVID-19 pandemic, teams may not have had the opportunity to engage in extensive training while adjusting to virtual settings. Information sharing is found to be one of the most hindered team processes among virtual teams (Feitosa & Salas, 2021).

**Theoretical Framework**

The theoretical framework used in this study was the input-process-outcome (IPO) model. The IPO model implies that several factors can influence the productivity and cohesiveness of a team, and it provides a mechanism to understand and maximize team performance (Landy & Conte, 2010). The IPO model has been described in literature as a dominant theoretical framework in research on traditional, face-to-face teams and the model provides a method for categorizing and integrating virtual team literature (Dulebohn & Hoch, 2017).
The seminal works of Steiner (1972), McGrath (1984), and Hackman (1987) provided the foundations of the IPO model by proposing how inputs lead to processes that in turn lead to group and team performance. McGrath (1991) furthered work on the IPO model through his exploration of how teams can follow different paths to reach similar outcomes in relation to time, interactions, and performance. Additional works have expanded on the IPO model through the incorporation of feedback loops (DeShon et al., 2004; Ilgen et al., 2005; Mathieu et al., 2008). The IPO model provides a theoretical framework to identify key inputs, emergent team states, mediating processes, and team outcomes related to the effectiveness and performance of virtual teams (Dulebohn & Hoch, 2017; Hoch, 2019). In the model, input factors affect team processes and emergent states that establish a connection between the input factors and virtual team outcomes (Ilgen et al., 2005). Hoch (2019) provided a framework to apply the IPO model to the management of virtual teams. A modified representation of the IPO framework proposed by Hoch (2019) is displayed in Figure 1. The modified framework includes labels to clearly identify the three components of the model, which are inputs, processes, and outputs.
The IPO framework assumes that through mediating processes, input factors are transformed into outputs. There are three categories of input factors in the suggested IPO model applied to managing a virtual team, which include structural supports, leadership, and team composition (Hoch, 2019). Structural supports represent organizational systems and structures that help to direct and support the virtual team, such as electronic support infrastructure, human resource information systems, performance management systems, or reward systems (Hoch & Kozlowski, 2014; Hoch, 2019). Structural supports can also help to provide clarity of feedback, goals, and processes (Hackman, 1987). It is recommended that organizations with virtual teams provide structural mechanisms that support leadership while also serving to offset the lack of leader co-presence typically found among virtual teams (Bell & Kozlowski, 2002; Hoch & Kozlowski, 2014). The leadership input factor represents formal supervisory and managerial leadership and is differentiated from shared leadership which represents a behavioral mediating process.
instead of an input factor (Hoch & Dulebohn, 2017; Hoch, 2019). Additionally, supervisory leadership has been shown to be more strongly linked to team outcomes in virtual teams than in co-located teams (Gilson et al., 2015; Purvanova & Bono, 2009). Team composition is considered a group level input factor (Hackman, 1987; Hoch, 2019; McGrath, 1991). Team composition is represented by factors such as cognitive capacity, diversity, and personality (Hoch, 2019).

The mediating processes and emergent states within the IPO framework are grouped into four categories that include cognitive processes, emotional processes, motivational processes, and behavioral processes. These processes function as mediation between the input factors and team outcomes of effectiveness and performance (Ilgen et al., 2005; Hoch, 2019). Mediating processes in the model help to explain how the input factors of structural supports, leadership, and team composition influence virtual team outcomes (Hoch, 2019).

Cognitive processes are important to virtual teams because team members must regularly share information that contributes to a combined team knowledge and understanding of roles and responsibilities. Virtual team members typically engage in functional or project-based work that involves complex and interdependent cognitive tasks (Hoch, 2019). Bell and Kozlowski (2002) explain that cognitive processes are necessary for virtual team members to facilitate the acquisition of knowledge. Error monitoring, feedback, learning, and process improvement are examples of cognitive processes that occur within teams (Edmondson, 1999).

Affective processes allow virtual teams to overcome challenges associated with the absence of face-to-face communication and the presence of feelings of isolation.
These processes promote emotional attachment among virtual team members and encourage commitment to team goals (Hoch, 2019). Team cohesion is an example of an affective process that helps to hold a team together (Zaccaro et al., 2001). Cohesion is important to virtual team performance due to the increased virtuality of team members (Hoch, 2019).

Motivational processes also help to offset the virtual team challenges of isolation and lack of face-to-face communication (Hoch, 2019). Work engagement is identified as a motivational team process that relates to team members possessing a state of mind that is characterized by a sense of fulfillment and positivity in relation to their work (Schaufeli et al., 2002). Within virtual teams, work engagement provides a method for team members to stay connected and engaged with one another through effective communication and coordination (Hoch, 2019).

Behavioral processes relate to how effectively team members coordinate their efforts (Zaccaro et al., 2001). Shared leadership and team member exchange are examples of behavioral processes found among virtual teams (Kozlowski & Bell, 2003). Shared leadership is a process where virtual team members lead one another to achieve common goals. It is a collective approach to leadership where the virtual team members make collaborative decisions and share responsibility for team outcomes (Hoch, 2017). The input factors of structural supports, leadership, and team composition have a positive impact on shared leadership in virtual teams (Hoch & Dulebohn, 2013). Additionally, shared leadership contributes to an increased perception of virtual team effectiveness by leaders, members, and customers (Hoch, 2019).
Team virtuality is the “extent to which team members use virtual tools to coordinate and execute team processes, the amount of informational value provided by such tools, and the synchronicity of team member virtual interaction” (Kirkman & Mathieu, 2005, p. 700). Hoch and Kozlowski (2014) present a three-dimensional approach to team virtuality that encompasses electronic communication, geographic distribution, and team member diversity, including cultural and national background. Gibbs et al. (2017) suggest that virtuality influences the development of team processes and outcomes. Team virtuality has been conceptualized as a moderating variable that impacts both the input-process intersection and the process-output intersection within the IPO framework (Hoch, 2019). Additionally, Purvanova et al. (2020) found that ascription factors (leader traits) predicted leadership emergence in teams with low virtuality, while achievement factors (functional behaviors) predicted leadership emergence in teams with high virtuality.

Within the IPO framework, outcomes or outputs result from team activities that are typically valued by team members and stakeholders (Hackman, 1987). Outcomes can represent results such as performance measured by quality and quantity, affective responses like commitment to work and job satisfaction, or viability gauges like reduced turnover (Hackman, 1987). According to Hoch (2019) outcomes can be anything an organization wants to augment, improve, or optimize in relation to virtual team outputs such as increased retention, improved sales, or reduced safety occurrences. Figure 2 provides a representation of the IPO framework applied to virtual teams that includes examples of input factors, mediating processes, team virtuality, and outcomes.
**Figure 2**

*The Input-Process-Output (IPO) Framework Applied to Virtual Teams with Examples*

<table>
<thead>
<tr>
<th>Input Factors (Inputs)</th>
<th>Mediating Processes (Processes)</th>
<th>Outcomes (Outputs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Supports</td>
<td>Cognitive Processes</td>
<td>Virtual Team Outcomes</td>
</tr>
<tr>
<td>electronic support infrastructure, human resource information systems, performance management systems, reward systems</td>
<td>Error monitoring, feedback, learning, process improvement</td>
<td>performance (measured by quality and quantity), affective responses (commitment to work and job satisfaction), viability gauges (reduced turnover)</td>
</tr>
<tr>
<td>Leadership</td>
<td>Affective Processes</td>
<td></td>
</tr>
<tr>
<td>formal supervisory leadership, managerial leadership</td>
<td>Team cohesion</td>
<td></td>
</tr>
<tr>
<td>Virtual Team Composition</td>
<td>Motivational Processes</td>
<td></td>
</tr>
<tr>
<td>cognitive capacity, diversity, personality</td>
<td>Work engagement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Behavioral Processes</td>
<td>Virtual Team Outcomes</td>
</tr>
<tr>
<td></td>
<td>Shared leadership, team member exchange</td>
<td>performance (measured by quality and quantity), affective responses (commitment to work and job satisfaction), viability gauges (reduced turnover)</td>
</tr>
<tr>
<td></td>
<td>Team Virtuality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extent the team uses virtual tools for coordination and processes, synchronicity of team member interactions</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** The Input-Process-Output (IPO) framework applied to virtual teams including inputs, mediating processes, team virtuality, and outcomes.

**Summary**

Based on this literature review, there exists a gap in research specific to the experiences of leaders who transitioned themselves and their teams to virtual work in relation to the COVID-19 pandemic. The existing body of literature on virtual teams and virtual leadership provided insight into the nature of virtual work including associated challenges and benefits. Common challenges faced by virtual teams relate to communication, conflict, lack of physical interaction, personal relationships, and power (Rod, 2012; Malhorta et al., 2007, Phelps, 2014). Other challenges include productivity (Davenport & Pearlson, 1998), performance (de Guinea et al., 2005), and onboarding (Agarwal et al., 2020). Common benefits of virtual teams were cited as reduced costs and expenses by employees and organizations (Ale Ebrahim et al., 2009; Bharathi et al.,
Another benefit was greater access to top talent and the ability to recruit employees with specialized skills regardless of geographic location (Ale Ebrahim et al., 2009).

This review also provided insight into leading and managing virtual teams. Virtual leaders need to be aware of individual differences and may need to adapt their leadership style to meet the needs of their team. Leaders can support their team members by monitoring performance, providing training, setting goals, and keeping everyone informed through regular communication (Killcullen et al., 2021; Snyder, 2012).

Promoting trust and providing recognition are additional ways virtual leaders can support their teams (Mehtab et al., 2017). Leaders should also role model desired team behaviors (Shachaf & Hara, 2005), support the well-being of team members (Contreras et al., 2020; Efimov et al., 2020), and provide an inclusive environment (Feitosa & Salas, 2021). A transformative leadership style can be beneficial to virtual team outcomes and performance (Purvanova & Bono, 2009; Ruggieri, 2009). Virtual team leadership can also be shared among multiple team members (Hoegl & Muethel, 2016; Hoch & Dulebohn, 2017; Robert & You, 2018; Ziek & Smulowitz, 2014). Shared leadership promotes improved collaboration, knowledge sharing, inclusion, and trust within virtual teams (Hill, 2005; Shuffler et al., 2010). Virtual leaders must be able to communicate effectively (Berry, 2011; Feitosa & Salas, 2021; Kayworth & Leidner, 2002; Roy, 2012; Ziek & Smulowitz, 2014), manage conflict (Brake, 2006; Roy, 2012), and possess emotional intelligence (Roy, 2012).

The review also explored the role of trust, technology, and communication among virtual teams. Trust was found to be crucial to the cohesion, performance, and success of
virtual teams (Cascio & Shurygailo, 2003; Child, 2001; Ferrell and Kline, 2018; Sarker et al., 2003). Concerning technology and communication, virtual teams rely on ICTs to communicate and collaborate (Avolio & Kahai, 2003; Hertel et al., 2005). Rich communication mediums are recommended to support virtual team performance and outcomes (Hoch, 2019).

Finally, the IPO model was reviewed as a theoretical framework for the study. The framework adapted from work by Hoch (2019) provides a method to apply the IPO model to the management of virtual teams. The proposed framework offers a way to examine virtual teams along input factors (structural supports, leadership, and team composition), mediating processes (cognitive, affective, motivational, and behavioral), team virtuality, and team outcomes.
CHAPTER III

METHODOLOGY

The purpose of this qualitative study was to describe the experiences of leaders who transitioned to managing a virtual team during the COVID-19 global pandemic. Since the onset of the COVID-19 global pandemic in early 2020, leaders and teams from around the world have been required to transition and adapt to virtual work settings at an unprecedented rate. This transition to virtual settings has diverged from the more traditional concept of virtual work that is characterized and described within the literature prior to this shift that resulted from the COVID-19 global pandemic. Therefore, this study also sought to explore how leaders adapted their existing leadership practices and how they leveraged people and technology when transitioning to managing a virtual team in the workplace.

Key aims of research included an examination of the challenges and benefits associated with virtual teams during the COVID-19 global pandemic and beyond (Feitosa & Salas, 2021; Morrison-Smith & Ruiz, 2020). Another key objective of this study focused on how leaders manage virtual teams within the context of the pandemic (Chamakiotis et al., 2021; Garro-Abarca et al., 2021). Additionally, subtopics related to leadership best practices, styles, skills, and traits were investigated, as well as communication, technology, and trust in relationship to leading virtual teams (Chamakiotis et al., 2021). Scholars have noted the need for more research on how
support of communication and technology can impact virtual teams regarding collaboration, conflict, outcomes, and trust (Morrison-Smith & Ruiz, 2020).

To explore this phenomenon the following research questions were posed:

1. How do leaders describe their experiences when transitioning to managing a virtual team during the COVID-19 global pandemic?
2. In what ways did leaders adapt their leadership and management practices when transitioning to managing a virtual team?
3. In what ways did leaders leverage people and technology differently when transitioning to managing a virtual team?

In this chapter, the process of phenomenological research and the rationale for selecting phenomenology as the research method are explained. Additionally, this chapter describes the participant recruitment process, interview protocols, ethical considerations, and limitations and delimitations of the study. Finally, this chapter provides an overview of the procedures that were used to collect and analyze the participant data and related findings.

**Setting**

This research was conducted at a non-profit health system organization located throughout Kentucky and southern Indiana. The organization consists of nine hospitals, outpatient facilities, physician practices, urgent care clinics, outpatient diagnostic and surgery centers, home care, fitness centers, and occupational medicine and physical therapy clinics. Around 25,000 employees work within the organization, and of those, around 1,500 are providers including more than 750 physicians and over 740 advanced practice clinicians.
Research Approach

A phenomenological approach was used to explore the lived experiences of leaders who transitioned to managing a virtual team during the COVID-19 global pandemic. Creswell (2018) defines phenomenology as a qualitative research method that “describes the common meaning for several individuals of their lived experiences of a concept or phenomenon” (p. 76). The goal is to describe what the participants have in common related to their personal experience with a specific phenomenon, which for the purpose of this study is the phenomenon of managing a virtual team during a transition from a more traditional, face-to-face setting. In phenomenology, data are typically gathered using interviews. However, other forms of data collection, including observations, poems, and documents are used as well (Creswell, 2018).

In phenomenology, the researcher typically interviews groups of individuals until there is sufficient saturation of information to describe the shared experiences. A typical phenomenological study may vary in size from a handful of individuals, 3 or 4, to a large heterogeneous group of 10 to 15 individuals (Creswell, 2018). In this study, interviews were conducted with 17 participants in leadership roles who were required to transition their teams to virtual work settings during the COVID-19 global pandemic. All the participants were full-time working professionals employed by a large non-profit hospital system located throughout Kentucky and southern Indiana. The participants all transitioned to virtual work settings in early 2020 and remained virtual workers during the COVID-19 global pandemic throughout 2021 and into 2022. The participants were identified as virtual workers as having worked nearly 100% of the time from a remote location, typically at home setting, instead of a traditional brick-and-mortar location owned or leased by the organization.
The participants were interviewed individually using the Zoom virtual conference platform, and each session was recorded and transcribed. Only the researcher and participant were present during interviews to ensure privacy and confidentiality (Wellings, Branigan, & Mitchell, 2000). Demographic data from each participant was collected as well.

Research Context and Positionality

According to Moustakas (1994, p. 104), “in phenomenological research, the question grows out of an intense interest in a particular problem or topic”. Personal history may bring the root of the problem into focus and a researcher’s excitement and curiosity can inspire the research (Moustakas, 1994). It is important to acknowledge the importance of a balanced perspective and it is also essential to disclose the researcher’s background in virtual work. The researcher possessed a personal interest in this topic having worked in partially and fully virtual settings throughout his professional career. This experience in virtual work settings equipped the researcher with valuable insights into the practical intricacies and challenges associated with this mode of work. While this expertise enhances the researcher’s ability to explore the nuances and depth of virtual leadership and work, it is crucial to recognize that this familiarity also has the potential to influence the interpretations of the findings. Therefore, throughout the study, the researcher strived to maintain a balanced perspective, acknowledging both the advantages and challenges inherent in virtual work, and employed continuous reflection on how the researcher’s background attributed to shaping the perceptions and interpretations.

As a scholar-practitioner, the researcher observed the topic of virtual work evolve throughout his career and become more commonplace among organizations globally.
Organizations have increasingly shifted to virtual work to be more competitive within the global market, to hire more specialized talent that may be geographically dispersed, and to save costs, such as expenses related to travel and maintaining brick-and-mortar locations (DeRosa et al., 2004). With the onset of the COVID-19 global pandemic, organizations rapidly transitioned traditional, face-to-face teams to virtual settings at an unprecedented rate with little to no preparation (Chamakiotis et al., 2021; Kilcullen et al., 2021; Zeuge et al., 2020).

While there exists a significant amount of scholarly and practitioner literature on virtual work and related topics such as virtual teams and virtual leadership, there is very limited research available on these topics related to the deployment of virtual teams and transition to virtual work that has resulted from the COVID-19 global pandemic and how virtual work has transformed as a result. Existing literature has examined the challenges and benefits of virtual teams prior to COVID-19, but a new additional lens is needed to examine how the current state of virtual work and virtual teams deviate from prior literature that was derived from research that focused on more traditional, specialized virtual work teams, and not from the rapid, mass shift to virtual work that took place since the onset of the pandemic. By conducting this study, the researcher sought to explore the current state of virtual work in relation to the experiences of leaders who transitioned their teams to virtual settings during the COVID-19 pandemic and to add to the growing body of research and literature on this phenomenon.

**Suspending Assumptions**

It is important when conducting phenomenological research to undertake the process of epoche, which means to refrain from judgment and stay away from ordinary, everyday ways of perceiving the world. Epoche allows for the researcher to set aside
understandings and judgments, so a phenomenon can be examined using a fresh perspective. Through this process the researcher attempts to invalidate, inhibit, and disqualify references to previous knowledge and experiences (Creswell, 2018; Moustakas, 1994; Van Manen, 1997). Establishing epoche is a method that allows the researcher to separate oneself from the research and limit influence on the collection of data and the interpretations of the evidence. Therefore, when conducting this study, it was important to acknowledge the researcher’s prior experiences with virtual work, to set aside those beliefs, and instead focus on describing the lived experiences of leaders who transitioned themselves and their teams to a virtual work environment during the COVID-19 pandemic.

In phenomenology, the term bracketing is used to describe the process where a researcher attempts to “bracket” oneself out of the study through a discussion of their personal experience with the phenomenon (Creswell, 2018). Bracketing allows the researcher to lessen potential adverse or detrimental effects due to unacknowledged presumptions and biases while also increasing the rigor of the research. When a researcher holds a personal relationship with the research topic, the connection may further develop during the research process which could lead to an emotional challenge for the researcher. Bracketing is a method that helps to protect the researcher from these potential challenges and outcomes (Tufford & Newman, 2012).

Cutcliffe (2003) indicates one method to address bracketing is to write memos during the data collection and analysis process which allows the researcher to assess and reflect upon their position regarding the data. The memos can represent theoretical notes related to cognitive processes of conducting the research, methodological notes related to
research procedures, or observational notes related to the researcher’s feelings about the data (Tufford & Newman, 2012). The process of using memos gives the researcher freedom to explore and develop ideas which may lead to valuable insights during the research process (Glaser & Holton, 2007).

Bracketing and epoche are often presented as interchangeable and synonymous processes within the literature (Bednall, 2006). However, Bednall (2006) explains that epoche “allows for empathy and connection, not elimination, replacement, or substitution of perceived researcher bias” (p. 127). Whereas “bracketing advances that process by facilitating a recognition of the essence of meaning of the phenomenon under scrutiny” (Bednall, 2006, p. 127). In this regard, epoche is viewed as an ongoing thought process that takes place before, during, and after a study by continuously suspending judgment and personal biases to understand the phenomenon under investigation. In comparison, bracketing is viewed as an event that takes place at the moment when interpretations come together, leading to the formation of conclusions, and representing a critical juncture during a study where the researcher systematically sets aside biases to reach a conclusion (Bednall, 2006).

In this study, the researcher undertook epoche by recognizing assumptions and acknowledging existing beliefs, values, and assumptions about the study. The researcher remained mindful of thoughts, judgments, and reactions when engaging with the data, and approached the subject matter with a neutral and open mindset. The researcher also engaged in continuous reflection and reassessment which aided in determining if any initial assumptions and judgments had changed or evolved while working with the data. It was important to maintain transparency during the reporting of the research findings by

50
providing a clear account of the steps taken and to ensure the trustworthiness of the study. The researcher used memos to bracket ideas of virtual work in relation to personal experiences with fundamental topics including benefits, challenges, communication, technology, and trust. While suspending judgments, it was important for the researcher to document any initial assumptions and biases. The process of reflective journaling and memos allowed the researcher to reflect on observations, thoughts, and emotional responses throughout the research process. In summary, this section has provided a description of the research context and positionality for this study and established how the researcher separated his experiences from the research through epoche and bracketing.

**Sampling Strategy**

The study focused on leaders from a non-profit healthcare organization, who transitioned from managing traditional, face-to-face teams to managing virtual teams during the COVID-19 global pandemic. A leader is defined as an individual in a role who directly supervises and manages other employees (Meza et al., 2021; Priestland & Hanig, 2005). Each of the leaders included in this study supervised at least one or more subordinate employees in a virtual team setting. Participants were recruited from across the organization without regard to other characteristics such as gender, age, professional title, or tenure as a leader if the participant met the baseline criteria of having transitioned themselves and their team to a virtual setting during the COVID-19 pandemic. Additionally, all participants and their direct reports were employed in full-time positions within the organization.

Demographic data was collected for each participant (see Appendix A: Demographic Questionnaire). The demographic questionnaire gathered participant
information for eleven items. These items included age, gender, ethnicity, relationship status, total number of children, number of children living at home, education level, years with the organization, years in a non-virtual leadership position, years in a virtual leadership position, and number of direct reports.

Phenomenological, qualitative studies do not require a specific number of participants and instead aim to collect enough data that saturation of the information can be achieved to describe the phenomenon and participant experiences (Saunders et al., 2018; Vogt et al., 2012). Creswell (2018) suggests that when conducting phenomenological research to explore the phenomenon with a heterogenous group of individuals that may vary in size from 3 to 4 participants to 10 to 15 participants. 17 leaders met the study criteria and were included as participants.

In this study, criterion and convenience sampling was used. Each participant had to meet the criteria of being in a leadership role with direct reports and was on a team that transitioned to virtual work during the COVID-19 global pandemic. The researcher worked with the human resources department in the organization to identify all employees who met both requirements of being in a leadership role and having transitioned to virtual work during the pandemic. A recruitment communication asking for volunteers to participate in the study was sent via email to 300 potential participants identified as meeting the criteria of being in a virtual leadership role. The researcher received responses from 22 individuals who volunteered to be included in the study. An informed consent document was sent to each participant and electronically signed. One individual reached out that she would be unable to participate in the study due to scheduling and travel conflicts. Four individuals never signed the informed consent and
were removed from the study since they were unable to participate. The remaining 17 volunteers all signed the informed consent and were included in the study. The researcher achieved data saturation from 17 participants and determined it was not necessary to recruit any additional participants.

**Ethical Considerations**

It is important to address the ethical considerations as well as the risks and benefits when conducting a research study. Confidentiality and protection of identity should always be preserved (Glesne, 2016). Participants were de-identified during the transcription process by removing their names and other potential identifiers such as names of subordinate employees, titles, and department name descriptors. The recordings from the one-on-one Zoom conference interviews were saved to a secure cloud account, owned by the researcher and no other individuals had access to the recording data. Other than general demographic data, no other identifiable characteristics or data were collected about the participants. These steps were taken to preserve the confidentiality of the participants.

While the risks to the participants were minimal, it was important to notify the participants of any potential risks prior to participation in the study. According to Van Manen (1997), participants may have feelings of “discomfort, anxiety, false hope, superficiality, guilt, self-doubt, and irresponsibility” from engaging in the interview process (p. 162). Benefits to the participant may include “hope, increased awareness, moral stimulation, insight, a sense of liberation, a certain thoughtfulness, and so on” (Van Manen, 1997, p.162.). The act of sharing experiences may also lead to their assumptions being challenged or changed because of increased awareness. In more extreme cases, participants may display changes in lifestyle or shift their priorities in life. The most
negative outcomes may even involve “feelings of anger, disgust, defeat, intolerance, and insensitivity” (Van Manen, 1997, p.162). Therefore, it was important for the researcher to be open and honest with the participants and inform the participants of risks prior to the study and debrief afterwards to alleviate any potential negative outcomes. In this study, the participants were informed of the potential risks and benefits, and voluntary consent was observed using an electronic consent form. In addition, the findings of the study were disclosed to all the participants.

**Data Collection**

A virtual interview was conducted using the Zoom video conferencing platform with each participant. This format was chosen for ease of access to the participants, to adhere to safety protocols related to COVID-19 precautions, and for appropriateness with consideration to the virtual focus of the research topic. Each interview lasted approximately 60 to 90 minutes and was recorded for transcription and data analysis. To promote active attention and engagement, the researcher used a webcam and microphone, and asked the participants to also enable webcam and microphone capabilities throughout each interview. The researcher also requested the participants reduce distractions within the environment and participate in the interview using a private area within their home or virtual office setting. The use of webcam and microphone audiovisual equipment was employed to help emulate the conditions present in a traditional face-to-face interview. At the start of each interview, the researcher informed the participants of the purpose of the interview and asked permission to record the interview session for use within the study. Face-to-face, in-person interviews were not recommended during this study due to safety concerns and protocols in place related to the COVID-19 global pandemic.
A set of open-ended interview questions was asked to each participant, and follow-up, probing questions were used, as needed, to further inquire about specific answers and experiences. The interviews used a semi-structured design. When using a semi-structured interview design, it is recommended that the researcher determines a set of initial questions, restructure the questions, and makes additions as necessary, and uses in-depth probing during the interview to thoroughly investigate the participant experiences (Glesne, 2016). The researcher developed the interview questions to explore and support the central phenomenon and participant experiences related to the three research questions:

1. How do leaders describe their experiences when transitioning to managing a virtual team during the COVID-19 global pandemic?
2. In what ways did leaders adapt their leadership and management practices when transitioning to managing a virtual team?
3. In what ways did leaders leverage people and technology differently when transitioning to managing a virtual team?

The interview guide consisted of sixteen interview questions (See Appendix B: Interview Questions). The interview questions were structured to align with and support the research questions and the overall purpose of the study. Fourteen of the interview questions were aligned to one of the three research questions (See Appendix C: Interview Protocol Matrix). The remaining two interview questions were designed to gather information on any additional experiences the participants want to share related to the central phenomenon, and to provide an opportunity for the participants to contribute any final comments, concerns, or questions. These two items were grouped and labeled as
“concluding questions” (See Appendix C: Interview Protocol Matrix). The researcher chose a single interview approach that encompassed aspects of the participant’s history, experiences, and reflection. The researcher determined through sufficient data saturation that additional follow up interviews were not needed.

**Data Analysis Approach**

Audio transcripts of each participant interview were generated using the Zoom platform. The researcher then listened to the recordings from each interview and used the auto-generated transcripts to manually clean up the transcriptions for any errors, such as incorrect words, which resulted from Zoom’s auto-transcription process. This process was conducted using the Notepad++ application, a free source code editor and electronic notepad like Microsoft’s Notepad application, but with additional features. Notepad++ was also used to remove personal identifiers from the transcripts, including participant names that were replaced with a participant number to ensure the confidentiality of responses during the data analysis and reporting.

After the participant interviews were transcribed and cleaned, the data was analyzed. The data was systematically reviewed multiple times by the researcher and coded into specific units of analysis. A code in qualitative research is defined as a “word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña, 2013, p. 3). After the initial significance statements were coded, the researcher reviewed the initial codes and developed a set of final codes and categories that were used to develop themes to describe the primary experiences of the participants and the essence of the overall experience of the phenomenon (Creswell, 2018).
The overall data analysis process was divided into two primary methods, first cycle and second cycle coding. First cycle coding are the processes that occur during the initial coding of qualitative data in which the researcher attempts to pare down and make meaning of the data collected. The first cycle coding processes can range among single words, full paragraphs, or entire pages of text (Saldaña, 2013). Second cycle coding is the next step in which the codes created during the first cycle coding will be further reorganized and analyzed to produce themes that link the data to explanations of meaning. During the second cycle coding processes, the segments coded can be the same units, lengthier passages of text, analytic memos, or reconfigurations of the codes developed earlier (Saldaña, 2013).

During the initial coding, the transcripts were chunked into “nodes” using the Nvivo qualitative data analysis software (Saldaña, 2013). Descriptive coding was used to summarize the data into words and short phrases that represented the basic topic of each coded passage (Saldaña, 2013). Descriptive coding allowed the researcher to categorize the data at a basic level that provided the researcher with an organizational framework of the study and analysis. Descriptive coding is a straightforward method helpful to researchers who are new to qualitative research, and particularly useful to researchers using qualitative data analysis software applications (Saldaña, 2013). The descriptive coding process allowed the researcher to develop a categorized inventory, tabular account, summary, or index of the contents of the data, and provided the groundwork necessary for second cycle coding and further analysis and interpretation (Wolcott, 1994).
Trustworthiness

Qualitative research is based on assumptions concerning reality and unique worldviews, and therefore should consider the notions of validity and reliability using a perspective that aligns to the philosophical assumptions of qualitative design (Merriam & Tisdell, 2016). Glesne (2016) describes using trustworthiness in qualitative research, instead of validity, to address quality, rigor, and how well a study is carried out. To achieve trustworthiness in qualitative research, the constructs of credibility, transferability, dependability, and confirmability were used as alternatives to internal validity, external validity, reliability, and objectivity (Lincoln & Guba, 1985; Merriam & Tisdell, 2016).

Credibility

In qualitative research, credibility is considered the counterpart to internal validity in quantitative research. Credibility is the process of carrying out research so that the probability of the findings is found to be credible and to show the findings are credible based on the data presented (Lincoln & Guba, 1985). To establish credibility, member checks, also known as respondent validation, were used in which the researcher requested feedback from the participants on the findings to help alleviate the possibility of misinterpretation of the participant experiences (Merriam & Tisdell, 2016).

Transferability

Transferability is parallel to external validity in quantitative research. Transferability means the “burden of proof lies less with the original investigator than the person seeking to make an application elsewhere” (Lincoln & Guba, 1985, p. 298). The original researcher does not know the sites where transferability may be pursued, but those seeking to apply the concepts should. Therefore, the responsibility of the researcher
is to ensure that appropriate descriptive data is provided so that transferability is achievable (Lincoln & Guba, 1985; Merriam & Tisdell, 2016). In this study, the research design, methods, participants, and setting are explicitly described so that other researchers can emulate this study using alternative variables to explore the phenomenon.

**Dependability**

Lincoln and Guba (1985) conceptualized the concept of dependability to describe reliability in qualitative research. Dependability means that instead of requiring other researchers to find the same results, the investigator wants other researchers to agree the results make sense based on the data, thus the results are consistent and dependable. It is not a matter of whether the findings will be observed again, but instead whether the results are consistent with the data (Merriam & Tisdell, 2016).

Merriam and Tisdell (2016) explain that replicating a qualitative study may not lead to the same results, however, this does not discredit the results of the original or any future research. Multiple interpretations can be made and will hold up until challenged and refuted by new data. A study is considered dependable if the findings are consistent with the data presented (Merriam & Tisdell, 2016).

**Confirmability**

Confirmability in qualitative research is related to objectivity in quantitative research. It is the extent in which the findings of a study can be confirmed by other researchers, and that the findings are derived from the data and not from the beliefs and assumptions of the researcher (Lincoln & Guba, 1985). Lincoln and Guba (1985) explain that confirmability is achieved when the constructs of credibility, transferability, and dependability are fulfilled.
The practice of reflexivity was used in this study to support the confirmability of the qualitative research (Anfara et al., 2002). Finlay (2002) describes reflexivity as the continuous practice of a researcher critically examining oneself in relation to their role in the research process. It encompasses the process and outcome of a researcher’s efforts to comprehend and incorporate the impact of their prior beliefs and potential biases on the research (Finlay, 2002). According to (Nowell et al., 2017) the use of journaling can serve as a tool for the researcher to document the daily logistics of their research, including methodological decisions and rationales. It also provides a method for the researcher to record personal reflections of their values, interests, and insights, as well as information about themselves as the human instrument in the research process (Lincoln & Guba 1985). In this study, memos and reflective journaling were used to challenge the researcher’s assumptions and existing knowledge of the phenomenon. Additionally, all notes, recordings, and transcripts were collected and analyzed. These measures promote the trust of the data so that readers can draw conclusions without reliance on subjectivity.

Summary

The aim of this qualitative, phenomenological study was to explore the lived experiences of leaders who transitioned to managing a virtual team during the COVID-19 global pandemic. The COVID-19 pandemic has pressured many organizations globally to shift many positions and teams to virtual work settings, often with little to no preparation. A goal of this study was to present implications for leaders transitioning to managing virtual teams and recommend future areas of research.
CHAPTER IV
RESULTS

This chapter is structured as follows: The chapter begins with a brief discussion of the participant demographics and the data analysis approach. The primary body of the chapter focuses on exploration of the research questions through data analysis that centers on establishing and discussing the themes that emerged. The chapter concludes with a summary of the findings.

Participant Demographics

In this study, 17 participants were interviewed using the Zoom virtual conference platform and each session was recorded and transcribed by the researcher. Only the researcher and each participant were present during the interviews. All the participants were employed full-time by a large non-profit hospital system located throughout Kentucky and southern Indiana and were required to transition their teams to virtual work settings during the COVID-19 global pandemic. The participants all transitioned to virtual work settings in early 2020 and remained virtual workers during the COVID-19 global pandemic throughout 2021, 2022, and into 2023.

Among the 17 participants, 70% (12) identified as female and 30% (5) identified as male. All 17 participants identified their ethnicity as White/Caucasian. The age distribution of participants was 12% (2) between the age of 26 and 41, 53% (9) between the age of 42 and 57, and 35% (6) were between the age of 58 and 67. No participants were younger than 26 or older than 67. Relationship status at the time of the study included 82% (14) of the participants reporting as married, and each of the remaining
three participants reported as one divorced, one in a domestic partnership or civil union, and one single, but in a relationship with a significant other. Only one participant reported having no children, while the other participants reported 12% (2) having one child, 65% (11) having two children, and 18% (3) having three children. However, among the participants 71% (12) indicated they had no children living at home, while only 23% (4) had two children living at home and 6% (1) had one child living at home. Education level included 6% (1) doctoral degree, 53% (9) master’s degree, 29% (5) bachelor’s degree, and 12% (2) associate degree.

Participant demographics concerning how long each had worked for the organization varied, but all participants had been employed with the organization for longer than two years at the time of participation. Table 1 provides a summary of the participants’ tenure with the organization.

Table 1

*Participant Years with the Organization*

<table>
<thead>
<tr>
<th>Number of years employed</th>
<th>Participant frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 or more</td>
<td>11</td>
<td>64</td>
</tr>
<tr>
<td>8-9</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>6-7</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>4-5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2-3</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 2 provides a summary of how many cumulative years each participant was employed in a non-virtual leadership position. Table 3 provides a summary of how many cumulative years each participant was employed in a virtual leadership position at the time of the study.
Table 2

*Participant Years in a Non-virtual Leadership Position*

<table>
<thead>
<tr>
<th>Number of years in a non-virtual leadership position</th>
<th>Participant frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 or more</td>
<td>12</td>
<td>70</td>
</tr>
<tr>
<td>6-7</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>4-5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2-3</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Less than 2</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 3

*Participant Years in a Virtual Leadership Position*

<table>
<thead>
<tr>
<th>Number of years in a virtual leadership position</th>
<th>Participant frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2-3</td>
<td>16</td>
<td>94</td>
</tr>
</tbody>
</table>

Table 4 provides a summary of the number of direct reports each participant had at the time of participation.

Table 4

*Number of Direct Reports*

<table>
<thead>
<tr>
<th>Direct reports</th>
<th>Participant frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 or more</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>8-9</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>6-7</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>4-5</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>2-3</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>
Data Analysis

After the interviews were transcribed and cleaned, the data was further analyzed. In this phenomenological study, the data was systematically reviewed multiple times by the researcher and data was coded into specific units of analysis. After the initial significance statements were coded, the researcher categorized the codes, and then developed themes to represent the overall essence of experience of the phenomenon.

The electronic interview transcripts were imported into the NVivo qualitative data analysis software application and coded electronically. The researcher used first and second cycle coding processes during the data analysis. First cycle coding was used in the initial stage of the analysis to pare down and make meaning of the data. After the first cycle coding was completed, second cycle coding was used to further organize and analyze the data to produce categories and themes to link the data to explanations of meaning. During the initial coding, the electronic transcript data were chunked into codes using NVivo qualitative data analysis software, which are labeled as “nodes” within the application.

Descriptive coding was used to summarize the data into words and short phrases that represented the basic topic of each coded passage (Saldaña, 2013). Descriptive coding allowed the researcher to categorize the data at a basic level that provided the researcher with an organizational framework of the study and analysis. Descriptive coding is a straightforward method helpful to researchers who are new to qualitative research, and particularly useful to researchers using qualitative data analysis software applications (Saldaña, 2013). The descriptive coding process allowed the researcher to develop a categorized inventory, tabular account, summary, or index of the contents of
the data, and provided the groundwork necessary for second cycle coding and further analysis and interpretation (Wolcott, 1994).

The first cycle coding process yielded 126 initial, descriptive codes. After these initial codes were developed, the codes were analyzed for similarities and the researcher grouped the codes and corresponding coded passages into 13 categories. The process of focused coding was used to categorize the data following the descriptive coding stage. Through focused coding, the researcher explored the most frequent and significant codes to develop categories that represented the general themes present in the data (Saldaña, 2012). Refer to Appendix D for a list of the categories.

After the 126 codes and 13 categories were developed, the researcher used an inductive thematic analysis approach in which 7 themes emerged. Thematic analysis is a qualitative research method that can be used across an array of different types of studies and research questions (Nowell et al., 2017). It provides a method to identify, analyze, organize, describe, and report themes found within the data. In inductive thematic analysis, the identification of themes is strongly linked to the data itself and the process of coding data does not attempt to fit into a preexisting coding framework or preconceptions of the researcher (Braun & Clarke, 2006). Inductive thematic analysis is a methodology for discovering, analyzing, structuring, describing, and communicating the themes present within a dataset. This approach emphasizes that the themes identified are closely rooted within the data, while the coding process avoids fitting into any preexisting coding framework or into the preconceptions and assumptions of the researcher (Braun & Clarke, 2006).
Themes

The results from the study and the thematic analysis are presented in this section. The findings and themes are presented in relation to the research questions, which are provided below.

RQ1: How do leaders describe their experiences when transitioning to managing a virtual team during the COVID-19 global pandemic?

Theme 1

Benefits of virtual leadership and work. Leaders and their team members experience many benefits and express a general positive experience when working in virtual settings. Specifically, virtual work offered improved flexibility, reduced commuting, cost savings, fewer distractions, and contributed to a positive work experience with a better work-life balance and enhanced well-being for leaders and employees.

Flexibility. The benefit of improved flexibility in work and scheduling was mentioned by 11 of the participants. Multiple participants pointed out an improved flexibility among themselves and their team members to schedule personal appointments and still be able to make up time and complete their work through flexible arrangements. Participants noted how employees and teams benefited from the ability to schedule personal appointments and still fulfill their work duties, due to flexible work arrangements. Participants expressed a belief that the COVID-19 pandemic accelerated the adoption of these flexible work practices, leading to increased employee satisfaction and improved work-life balance. This flexibility had positive implications on various aspects of employee’s lives, including child and pet care, exercising, and attending to other family needs.
Participant 9 suggested that the “Covid pandemic propelled us into a more flexible mindset” and went on to say that “if this had not happened, the organization would have not gone all in like we are now,” regarding the transition virtual work opportunities. She continued by saying “this is a positive that has come out of the pandemic, and it has also helped us to be able to provide flexibility to our team members.” Participant 1 stated that team members can attend to childcare needs more easily, such as not having to “drive home as fast as possible” from work to take dependents to appointments or after school activities. Participant 1 also shared that if a team member has an appointment during the workday that may go longer than expected, flexibility allows the employee to make up that time later, and the leader is ok with the employee sending a text to make her aware of the situation. Participant 10 expressed that it is important to treat team members as professionals and recognize that flexibility is important, as long as the work is getting done. He stated, “We have work to get done. If you can get your work done and you want to go out to lunch, then go out to lunch.” He went on to state that with flexibility and work that it can be “nice to do at night, but it is important to understand that if team members are sending emails afterhours that I make sure that is due to flexibility, and making up time, and not to being overwhelmed by the workload”. Participant 10 explained that a benefit is being able to work in different locations. He was able to take his family on a vacation while the daycare was shut down for a week during the pandemic and was able to work remotely during the day while his family enjoyed vacation related activities, and he joined them in the evenings.

Participant 11 shared that during the pandemic one of her employees owned an RV and needed to be available to help with her grandchildren and was able to travel and
work remotely with no interruption to work and did not have to miss days that would have been necessary if working in an office and faced the same family situation. Another participant, 17, shared that one of his team members had requested to be able to work in Oklahoma, and he was supportive of it. He continued to say that:

She’s been there now for almost a year, and she’s thrived as a result. I would have lost her otherwise and those are difficult positions to fill. So, it was definitely a game changer for her and for us.

Participant 11 was allowed to work in another city for two weeks after her grandchild was born. Participant 7 shared that his boss was able to fly to Florida to stay with his parents for almost two full months and help them out, while still being able to work remotely and not miss any meetings. Participant 15 shared that a benefit of improved flexibility allows her to get more sleep since she does not have to get up and get ready as early when working virtually, and the flexibility of working at home reduces her amount of travel. Concerning her team members, she went on to say, “they all have various interests and different family lives, and I know they have really enjoyed the flexibility of it”. Similar to what other participants said about flexible work arrangements, she mentioned that:

Some of them are night owls, you know. I'll get emails from them in the evening, and some are early morning folks, so they can be quite flexible, unless they have a meeting, they have to be at or something like that, obviously, but otherwise you know that they can work with something that works for their schedule.

Regarding the transition to virtual work and flexible work arrangements, Participant 15 stated:
It requires flexibility, but it’s kind of exciting too. It’s an exciting time, you know, as a forced experiment, but I think the experiment went well in a lot of ways. At the end of the day, it’s a good thing to give people flexibility.

A team member of participant 2 has a special needs child and the flexibility of remote work allowed her to work from home while being able to attend to her child without relying on other means of childcare. The same leader said:

As long as you get your work done, I don’t care what hours you’re working. You know, up in the middle of the night working, because you’re up with your baby, and you might need to take off a couple of hours in the middle of the day, I’m flexible like that.

Similarly, Participant 3 explained that:

We have a lot of people with young kids, and trying to manage home, schooling, and all that can be difficult. So, I felt it was very important for us to have a flexible schedule, so I put that in place, and everybody loves it. If they need to go to a dentist or a doctor’s appointment, or whatever, they don’t have to take that time off. The flexibility helps with their general morale.

Participant 12 enjoys the flexibility of working virtually and said, “I love being able to go throw in a load of laundry at lunchtime.” Participant 4 has team members that “go to the gym now on their lunch hour” and “they wouldn’t have been able to do that working in an office as easily”. She went on to say that “they can throw on their yoga pants really quick and go to the gym” and continued with “I think the flexibility is huge.” Participant 3 also enjoyed the flexibility because she “picked up exercising once going virtual” because she now has extra time to do so before work or during lunch. Employees also
appreciate the flexibility when it comes to child and pet care, and Participant 16 did not mind it “as long as it doesn’t interfere with their work”. She went on to say that she gets hours back in her day by not having to travel and sit in traffic and can now spend more time working in her garden after work. She also stated, “Just being able to let a plumber in, you know, those are great things.”

In some situations, the flexibility also allows employees who might have needed to call in sick, the flexibility to now choose to work at home instead if they are well enough to work and this prevents an illness from spreading around the office (Participant 3). Participant 4 said it relates back to mutual respect and setting expectations:

> We made an agreement of just mutual respect. Early on, when we transitioned to remote, I said, you know I don't expect you to sit at your desk for me 8 to 5 every day. If you want to throw in a load of laundry, if you want to go walk the dog, I insist, do it. And I said, all I want to know is, if you're out of the office and unreachable send me a message, and they would be like I got a doctor's appointment this afternoon at 2 and I'll be back at 4:30.

She also added:

> What you find by giving someone that kind of flexibility is if we do have a need after hours or on a weekend, they’re willing to work that extra time to knock a project out. Because they know that they’ve had the flexibility on the other side if they needed to take off and could do so.

However, she explained there was a period of transition as her team members adapted to working virtually in terms of flexibility and managing work-life balance:
When we first transitioned virtually, there were emails flying all hours of day and night. Midnight, you would get emails. You'd get up in the morning and you'd open your computer, and you'd have 10 emails. People were working night and day. So, I put a lot of time and effort into coaching my team on work-life balance and reminding them that they wouldn't be at the office at midnight emailing people. So, it is not expected, nor is it even appreciated, if you're emailing people all night long. So, we kind of have an agreement that we avoid communication after office hours unless it's an emergency. They know that they're probably going to get an email from me, and I’m going to say did you have to do this on Saturday morning? You don't have to do that, but that goes with the flexibility too, and they like being able to take off an afternoon to go to their kid’s school. They're willing then to work a few hours on Saturday to wrap up something that they need to do, but early on we spent a lot of time talking about the importance of work-life balance.

Participant 9 shared a similar situation with one of her team members:

We’ve set our work hours to when it works for our whole self, and not just when it’s prescribed, not out of a set of hours you have to work between. I have one employee; she has 2 little kids and it’s crazy what she goes through. I see her working, you know, at 10 o’clock at night. Before I might fuss at her, but now I know in the morning she has stuff going on with her kids. She just chooses to work at 10 o’clock at night.

It was shared by participant 7 that flexibility in relation to virtual work was much better for his team members to attend appointments than when they were working in a physical location.
office. He said, “it was always kind of awkward when they were in the office and said they had to go run home and get their kid to go to a doctor’s appointment.” He allowed them the flexibility to do so in the office setting, including taking the full day off if needed, but in the virtual environment the flexibility comes easier. He went on to mention though that he has a high level of trust with his employees, and that helps him being comfortable with and able to allow such flexibility. He also shared the following insight specific to the flexibility of him and his team members:

Working from home, I have flexibility. I can go step outside, take care of my dogs, and take care of the house. In the summertime I can hop into the pool during lunch or right after work. You know several of my team members have gotten something fixed or remodeled their kitchens, put in a new front door, windows, whatever. Before, that would have been very difficult, they would have to just take the day off. They would have to use PTO (paid time off). Now they don’t have to burn through PTO or miss most of the day. They just have to be in and out every now and then to go check on the workers.

**Commuting.** Reduced commuting was another benefit the participants described as advantage of virtual work. Participants emphasized the relief of not having to travel to the office, saving time and resources. This included not only commute time but also expenses related to gas and vehicle maintenance. The absence of commuting also contributed to a healthier work-life balance and well-being by reducing stress and allowing for more time to focus on personal interests.

Participant 7 shared insight into the benefit of not having to commute into work and how this had a positive impact on his work-life balance. He said the following:
So, when you had to drive into work you would leave in the morning when it was dark, and you wouldn’t get home until it was dark. Yeah, that was really depressing to me.

Participant 1 said she has an employee that would have to drive over an hour to work, crossing a toll bridge, and had an older vehicle. So, in addition to commute and travel times, employees also had to contend with gas prices, vehicle maintenance, and related concerns before working virtually. Participant 10 believes that “a lot of people’s home lives have improved as well, because they’re not having to commute as much and have gained time back in their days”. Participant 16 provided the following insight:

Traffic creates issues and I live an hour away from the office. So, for me, I realized after moving to virtual I got an extra 2 hours back in my day. I don’t have to get as ready in the mornings and get as dolled up as I might before.

Participant 7 provided a similar response of “when you get up you don’t have to get dressed and fight traffic for an hour to get to the office just try to find a parking space”. However, participant 3 said she used to use the commute to the office and home as time to decompress, but she went on to say with working from home there are other ways to decompress now. She said “you could set up other processes, like go for a walk in the neighborhood to replace that decompression time” that she previously got from her commuting.

Cost savings. Participants mentioned another benefit of working virtually was cost savings and reduced spending. These benefits were primarily attributed to reduced costs associated with commuting to work and related expenses, such as automobile maintenance, fuel costs, and highway tolls. Participants cited additional cost savings
related to childcare and going paperless due to an increase in adoption of digital and electronic processes. A cost savings to the organization was the closing of physical office locations and many costs associated with maintaining physical work locations.

Participant 11 said:

I think people got used to not having paper. You know, I like to take my notes, but I don't need things printed anymore. I think that is another thing that’s been really good and has helped to save money.

Participant 15 pointed out that employees who commuted through toll areas saved additional money by completely removing those expenses by working from home. He said shared that “once her child went to school, she saved money, because she lives in Indiana and doesn’t have to pay the toll.” Participant 4 said “I live about 45 minutes outside of Louisville and I was commuting and spending over 2 hours a day in traffic, sometimes”.

**Less distractions.** A benefit cited by participants was less distractions when working virtually from home. Participants highlighted that employees were more productive at home, free from constant office interruptions and office chatter. This enabled a better work environment and encouraged efficient work habits. Introverts, in particular, found the tranquility of remote work especially suitable.

Participant 15 described that working at home makes it easier for him to focus and get work done. When he worked in the office he would create “focus blocks” to work on projects and accomplish tasks, but working virtually he can turn off notifications and put his phone on silent and dive into his work more easily. Participant 16 explained how they
were already planning to allow for partial remote work even prior to the Covid-19 transition:

My team was at the forefront of letting people work remotely. We did a survey because my managers were initially resistant. I said, well then, let's do a survey and find out what our people really want, from the days of the week to why they wanted it to how it can be done. It's so loud in a cube world, even though you know they had noise reducing things, and even with headphones and all the other technology around it was hard for them to focus. So, people really appreciate the ability to not have all that noise.

Participant 4 shared the following about distractions in the office:

My office was like a revolving door. Everybody that walked down the hall wanted to talk, and they wanted to know how my weekend was. Not that I hate that, but it can really undermine your productivity if you're interrupted too much. My team can tell you they are much more productive at home than they ever were in the office. Just because they feel like they're more in control of their environment and their schedule. They just feel like it's a better environment to be more productive.

Participant 5 commented similarly:

Oh, the benefits! So, for me personally I get way more done because when I was in the building everybody wanted to chit chat, and I am not a chit chat kind of girl. I might say, hey, how's it going? Ok, let's jump into in. I could not get my work done.

Participant 7 explained that his team did not really miss the water cooler and hallway conversations. His team “never enjoyed that and would actually try to avoid it as often as
they could.” He said, “they would prefer to just go to the restroom or get a snack and get right back to work because they were very focused on what they were doing.” He said working virtually has allowed them to focus better with all the office interruptions. He also shared how working virtually may benefit certain types of individuals, such as introverts:

My team embraced it well. Most of them are introverts. So, quietness and being alone really helps them thrive instead of hindering them.

*Positive experience.* Participants noted that overall, working virtually has been a positive experience in which the employees are happier and express more joy. They expressed a belief that being able to work virtually from home has contributed to a happier workforce. Employees were enthusiastic about the benefits of virtual work, including better exercise opportunities, a sense of control over their work environment, and the flexibility to tailor their work hours to their needs. Table 5 lists responses that supports this finding.
### Table 5

**Statements Supporting the Positive Experience Associated with Virtual Work**

<table>
<thead>
<tr>
<th>Participant #</th>
<th>Statement</th>
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<tbody>
<tr>
<td>1</td>
<td>“Overall, it has been a positive experience.”</td>
</tr>
<tr>
<td>1</td>
<td>“I think that every one of my people is absolutely happier at home.”</td>
</tr>
<tr>
<td>1</td>
<td>“They don’t come into the office ever, even on Wednesdays when I’m going in, so I know that means this is what they want.”</td>
</tr>
<tr>
<td>1</td>
<td>“I don’t think that my team would ever want to go back to an environment where they’d have to come in, so I know they’re very happy with it.”</td>
</tr>
<tr>
<td>1</td>
<td>“I’m really grateful to work from home. I love the benefits, too. I appreciate getting more exercise in and just working from a hoodie sometimes.”</td>
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<tr>
<td>2</td>
<td>“We transitioned during Covid, and it went very smooth. Everyone was happy to be at home during Covid and they have all acclimated.”</td>
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<tr>
<td>4</td>
<td>“It’s been a nice experience, and I will have to say that two and a half years later everyone still likes it, myself included. I love it. I feel like I’m more productive and just have a healthier lifestyle than I did before.”</td>
</tr>
<tr>
<td>4</td>
<td>“I feel like the team, as a whole, is more comfortable, so they’re able to do a better product in general and work through any issues they had when we first started. Now they’re all happy with it.”</td>
</tr>
<tr>
<td>6</td>
<td>“I feel like the team, as a whole, is more comfortable, so they’re able to do a better product in general and work through any issues they had when we first started. Now they’re all happy with it.”</td>
</tr>
<tr>
<td>7</td>
<td>“They flourished. It’s really been a good experience. I mean it’s one of the better things to come out of the pandemic.”</td>
</tr>
<tr>
<td>7</td>
<td>“I think everybody’s happy working from home. I think the pros outweigh the cons.”</td>
</tr>
<tr>
<td>10</td>
<td>“We have the ones who kind of kicked and screamed when we went remote, but now they don’t want to go back. They really enjoy it.”</td>
</tr>
<tr>
<td>11</td>
<td>“They love the flexibility. Some have lost weight. They’ve improved their health. There’s just been some really good stories come out from all this.”</td>
</tr>
<tr>
<td>11</td>
<td>“I have a team member who checks in a lot to make sure we’re still staying virtual. It seems to have been a real big benefit for him.”</td>
</tr>
<tr>
<td>11</td>
<td>“I know how grateful my team is to work from home.”</td>
</tr>
<tr>
<td>15</td>
<td>“I think everybody feels like they’re more productive and I think they’re happier.”</td>
</tr>
<tr>
<td>18</td>
<td>“I love it. I really enjoy working from home now.”</td>
</tr>
</tbody>
</table>

**Work-life balance and well-being.** Participants shared that their team members and themselves experienced a better work-life balance after transitioning to virtual work.
Participants noticed that their team members had gained greater control over their schedules, allowing them to spend more time with family, exercise more, and reduce their overall stress. These changes translated to a healthier, happier, and more productive workforce. Participant 1 said that her team members have been with her for a “long time and they’re great at what they do, and this has helped them to be happier with their work and have a greater work-life balance.” Participant 10 said “a lot of people’s home lives have improved as well”. Participant 13 said she made efforts to be flexible with her team members and support work-life balance for herself and her reports. She went on to say that she sometimes conducts calls outdoors, sometimes while going for a walk, and having a meeting at the same. Participant 2 shared that her team members have expressed an improved work-life balance by being able to take care of their children more easily and generally having a better family life. She also encouraged her employees to be sure to “disconnect” and leave their home office at the end of the workday so they could separate work from family time when working from home. Participant 4 similarly shared that her team members “can control their hours which helps with the work-life balance”.

Participant 5 expressed that she focuses on getting her work done during normal work hours, so she does not have to “work until the wee hours of the morning”. Participant 7 shared the following sentiment about the importance of maintaining a good work-life balance when working from home:

It is important when working from home to be able to separate work from everything else. It’s your life and at the end of the day you need to be able to clock out and step away from work to be with your family.
Participant 9 had a similar response when she said, “I think that setting proper parameters for mental health and work-life balance is imperative.”

Participant 2 said she also spent a lot of time early in the Covid-19 pandemic talking with her team members about the importance of maintaining a good work-life balance. She said, “once you walk away from your computer in the afternoon you don’t go back in the evening, that’s your sacred family time.” She went on to say that she found that her direct supervisor was also very respectful and supportive of maintaining a healthy work-life balance. She also shared that “before we were virtual, the organization, as a whole, was just very 24/7, and now that we’re virtual you see work-life balance more respected.”

Participants also shared their team members and themselves expressed a greater well-being after transitioning to virtual work. Participant 2 stated, “we need to focus on the well-being of our employees” and use the data gathered from the organization’s annual workforce survey to make informed decisions about employee well-being. Participant 11 cited that some of her employees have lost weight due to living a healthier lifestyle and are more physically active now. Participant 4 said she is also living a healthier lifestyle than she did prior to going virtual. Participant 15 shared that he and his team have engaged in healthier habits, such as eating better and increased exercise. He went on to share that his affect has improved by being able to work at home in an area with a window and being able to be around his pets while he works. Participant 4 provided a similar account:

We have several people on my team who have lost weight. Their cholesterol and personal health have improved, and it’s because they’re not eating out every day.
Participant 17 said he conducted regular meetings with his team members on a weekly basis in which the discussions contained a focus on employee wellness and well-being. Participant 14 said shared the following sentiment about his employees:

I want them to know I care about them first. I’ve tried to get to know them better. I have one whose husband was going to have surgery, so I tried to find out more about him and express my concern and support.

He went on to share that his team has experienced grief with the unexpected passing of a team member. He explained that he has some background in grief support and was able to apply that to help his team members and other employees through that difficult time. Participant 7 stated “the people are more important to me as people than they are employees” and that he “makes sure they are taken care of.”

In summary, the essence of this theme is that participants expressed many benefits associated with the adoption of virtual work, including increased flexibility, less commuting, cost savings, fewer distractions, a positive overall experience, and improved work-life balance and well-being for employees. These findings suggest that the transition to virtual work has had a substantial, positive impact on leaders, employees, and the organization.

Theme 2

Challenges of virtual leadership and work. Leaders and their team members experienced unique challenges when transitioning to and working in a virtual setting. Challenges based on the participant experiences related to career growth, visibility within the organization, camera fatigue, numerous meetings, communication, technology, and feeling disconnected and isolated from others within the organization.
Career growth and visibility. Participants expressed concerns over potential barriers to career growth when working virtually and reduced visibility within the organization. Participants believed that virtual employees were sometimes discounted in comparison to their in-person counterparts. The participants also mentioned ways to combat such challenges, such as being more intentional about meetings and improving the visibility of virtual employees through inclusion and optimization of the use of technologies like Microsoft Teams and Zoom.

Participant 10 shared that he has experienced situations where employees working virtually are discounted in comparison to those working in in-person roles in facilities and hospitals. He continued by stating many organizational decisions are made at the hospital level, by non-virtual leadership. “I think it’s harder to help people grow in the virtual setting.” He went on to say there is no good solution to the barriers to career growth. He added that he could “leave the organization” but he said he did not want to do that.

Participant 11 used the phrase “out of sight, out of mind” to describe virtual employees and leaders. Participant 9 provided the following insight:

If you have employees who come in on site, or work hybrid, I think they get more exposure to leaders and other people than if they're at home. They would be missing out on career opportunities because they're not in-person. They don't have an office. I think it’s important to make sure that you have enough check-ins with your team, so you know what their goals are, what their aspirations are, and any opportunities for development. Having those intentional meetings and making
sure that they're visible, even through Zoom meetings, is crucial to have visibility within the organization.

The following experience describing a perception of disconnect was shared by participant 8:

You know, my boss, I've been reporting to him now for 2 years, and he's never set foot in my area. He acts like he knows what's really going on, but he has no idea, and I'm thinking, wow! Have we gotten to that point now? Staff feel like their superiors have no idea what's going on, what kind of environment they're having to work in, and they're making decisions on their behalf with only a piece of the information. It’s only gotten worse after moving the team virtual.

**Disconnect and isolation.** Similar to the perception of a lack of career growth and reduced visibility, participants also shared many experiences related to a general feeling of isolation and being disconnected from others and the organization. Participant 16 shared that even though she has known some of her team members for years it has been more difficult at times to connect with them after moving to the virtual setting. She said, “It’s harder for him and me to connect at times, even though we talk a lot, I don’t think we fully understand each other.” She said she started trying to meet with her team members in-person at least once every two months. Her goal was to be able to better “read each other’s body language and possibly have a more personal conversation than we do virtually.” One of the primary complaints that employees shared with participant 6 about virtual work is disconnect. She went on to say, “They felt disconnected, not necessarily from me, because they interacted with me almost daily, but they weren’t interacting with each other like they used to and how they used to be able to do so.” She
also mentioned her team members expressing anxiety about being isolated and needing to contact her. She advised her team to call her or contact her using Microsoft Teams and that she is “literally here at any moment just like I was down the hall, if you need me.”

However, in comparison participant 7 stated “I realize being in person is different than being on screen, but it’s enough for my team and me to feel connected and not feel isolated.” Participant 6 shared a similar account that she “can go all day without talking to anybody and be super happy.” However, her team members are not like that, and they crave interaction with other people. She added, “I would say a challenge is there are many times when my team members still want to have that face-to-face meeting time.”

Participant 9 explained that some members of her team are extroverts and are not as comfortable with the virtual setting while others on her team are more introverted and are amazingly comfortable in the virtual environment. Participant 15 shared:

I am grateful that my team and I can work from home, but for me personally, I do struggle some. I am more of an introvert, but it does feel isolating to me at times. However, I have to be careful with that because I am grateful and love the benefits of working from home, but I have to find strategies to keep me from feeling isolated and too robotic, like I’m just here to do my work.

Multiple participants shared a sense of isolation. Participant 8 said that he lets his team members know that he is available to them. “A lot of times in a virtual team people can feel isolated and rather than coming to me directly or pulling a group together, they try to handle things on their own.” Participant 10 said, “I think one of the cons is that we’re home all day every day and you can get cabin fever.” He went on to say that “It can be kind of lonesome, so just hearing people talk, like on the phone, can help.” Participant
15 shared that some of his team members used to like to stop by his office and talk, and the virtual setting was isolating. He went on to say that he “did feel isolated and missed the camaraderie of the office.” However, he also shared that finding the right balance is important. Sometimes he works in a coffee shop or goes into the corporate office to work so he does not feel so isolated. He also began scheduling regular check-ins with his employees to have more personal interactions.

Participant 13 said she was “looking very forward to going into the building again and having human contact.” She went on to say that she has some new employees that did not meet each other in person for over a year during the pandemic. Participant 1 said the following about the employees she has hired since the pandemic and moving to virtual:

They don’t know each other now like they used to. I have new people on the team that never worked together in the office. Events might be somewhat uncomfortable because they don’t really know each other as well and have never met the rest of the team in person.

Participant 9 shared that:

Personally, the feeling of isolation just doesn’t do it for me. In my style, I get a lot of energy from being around people in person.

Participant 17 shared that when moving to virtual work he was not prepared for the barriers to connecting with his direct leader as easily in general or on a personal level. Prior to transitioning to virtual he said his leader would make rounds in the building and regularly visit his office and stop in to ask how things are going and would make small talk. However, after transitioning to virtual he said, “Those kinds of things didn’t happen
anymore.” He said his leader is the type who “isn’t going to use Zoom or call me to see
how things are going.” He went on to say that he was not prepared for that aspect and that
it was difficult for him to adjust. Participant 8 shared that he misses the “elevator
speeches and ad hoc conversations that occur when you’re next to people” and that in the
virtual setting “once the meeting is over, it’s over, and it’s not like you can hang out in
the Zoom world and have those conversations.” Participant 9 shared that when in the
office and needed to ask someone a question she would just walk down the hall to speak
with them, but “when you’re doing virtual, you have to plan it.” She went on to say:

> You have to plan time on somebody's calendar. So those impromptu meetings,
those meetings by the water cooler or by bumping into somebody in the hall, or
the restroom, those just don't happen. There's a lot of rich exchange that happened
in addition to the information you're seeking, or the reason you're going to see
them. You got to connect with them socially before.

Participant 5 provided the following experience:

> When we were in the office, I could walk down to the IT office, and say, hey, I
have two new people starting. It was lot easier to do face-to-face communication
then. Now, working remote, IT doesn’t have to answer my emails or phone calls. I
have had more experiences with bottlenecks due to the physical distancing.

**Meeting and camera fatigue.** Participants expressed that after transitioning to a
virtual work setting their team members and themselves experienced fatigue related to
back-to-back virtual meetings and the constant reliance on web cameras in those
meetings. Participants expressed that they often felt drained being required to participant
in numerous, back-to-back meetings after the transition to virtual work and due to the
constant reliance on web cameras and having to see themselves on camera nearly all day long. The toll of these non-stop meetings on productivity and employee well-being was evident based on the participant responses. Additionally, participants described strategies to address and manage these challenges such as reconsidering meeting attendance and streamlining the meeting process.

Participant 8 said “the back-to-back meetings were a hindrance.” Participant 5 expressed similar frustrations in the following statement:

When you're a working manager or working leader, that has a big staff, and you're trying to get through your day, and you have 11 meetings, and I’m not kidding, 11 meetings, and they're constant, then you realize, gosh, I didn't need to be part of that.

Participant 9 described virtual meetings as being different from face-to-face meetings or meetings around the lunch table. She said, “its’ different, to sit in front of a camera all day, because you get camera fatigue from doing that all day long for every meeting.” “It’s not as enjoyable, and it uses up energy versus giving you energy like you might get in a face-to-face social environment, and you don’t get the richness in Zoom like you do other settings.” She also shared that her team members and she experienced fatigue from meetings and had to put parameters into place:

We had to really look and to see who is invited to all these meetings. Do they really need to be on this? I feel so overwhelmed when I am scheduled back-to-back to back and so are my team members. It’s so bad you can't even get your regular work done. We have so many Zoom meetings, and people are getting on there saying that you can look at your calendar on the bottom left and it'll tell you
how many meetings you got scheduled for the day. It kind of used to be a badge of honor as an indicator of how busy you were. However, I have learned that those meetings are wasteful. If someone doesn’t need to be there, then don’t force them to be there. Now I’m trying to free up time for my team members that don’t need to be involved. Virtual employees have flexibility, but so many Zoom meetings is just hard. At the end of the day, I have people saying this has been my twelfth Zoom meeting today. So, we try to take good notes and loop people in who can’t or don’t need to be present in every meeting.

Concerning the duration of virtual meetings, she said the following:

We still have to get the work done and projects initiated and executed. Because when you’re in-person, it seems like to me that when we had in-person meetings they’d be for half an hour to 40 minutes, but every Zoom meeting now is an hour regardless of what the topic is. So, I think we waste time, and a challenge is how do you hold meetings effectively in a shorter period of time? I think we could have benefited from some real training around effective meetings, tips about how to have a good Zoom meeting, and on the purpose of meetings.

**Staying connected.** Participants found that after transitioning to virtual work that it was more difficult to stay connected with their team members and other employees. Participants highlighted difficulties in maintaining social interactions and casual conversations that happened naturally in an office setting. Participants also emphasized that relationship building was believed to be easier in-person and it was more difficult to build similar relationships in the virtual environment.
Participant 9 believed that “in a virtual setting it is so hard to be there to comfort, guide, and support people because you feel disconnected in this virtual environment.” Participant 16 shared that it is difficult at times in the virtual setting to make sure her team members were “staying connected and having social interactions, not just going from meeting to meeting or being robots all the time.” Participant 11 shared that she missed the corporate office and being able to easily connect with others. She said, “I was able to run up three flights of steps and get to people.” She added that it was easier to catch people outside of meetings to connect and get things done. She also shared that she missed being in close proximity to the legal team in the office, and now it is more difficult to connect with them. Additionally, her direct supervisor would regularly stop by in the office, especially on Friday afternoons, and she said, “that was special time for me.” Participant 15 said that “one challenge is not being able to pop-in and check on someone.” He went on to say that he can call someone or send a message in Microsoft Teams, but he does not connect that way as much as he would connect when he was in the office with his team. He said that in the office it was easier to “to pop-in to check on a project or just check on them personally to see how things are going.” Participant 12 also mentioned the inability to “pop-in” on employees in person:

When I worked in a prior leadership role it was definitely my style to pop-in, face-to-face to meet with people, and just very casually check to see how things were going. I think that with a virtual team it is a whole lot different now. I have had to try to pop-in with the different tools that are available, but it's still different and it's challenging for me.
Participant 17 said, “I think the relationship building is more challenging.” He went on to say, “There’s something to be said about in-person conversations and being able to drop into a physician’s office or a Vice President’s office.” He added that he feels less connected to his supervisor after moving to the virtual setting. He said, “I wasn’t prepared to not be able to connect with my boss as much on a personal level.” We went on to add that “before the pandemic he would stroll down the hall at least once a day and just check in to ask how my day was going, and now those kinds of things don’t happen anymore.” Participant shared a Similar account 2 who said:

We all worked together previously on the same floor at the System Services Building, and you know, we met face to face. We would go out to lunches together and connect, and we had a good relationship. We did check ins on each other pretty regularly. Then, when we went to work from home. One of my employees struggled, and I just could never get in touch with her. She was not present, so it became very difficult to try to figure out what was going on and manage the work. Things weren’t getting done. So, it became a big challenge, and I had a difficult time leading her in that particular setting.

Participant 10 shared the following insight:

It is difficult to figure out ways to bring people together. I would talk to my boss about having a big quarterly meeting, but we have people from three departments who have to come together. There’s not a lot of cross departmental interactions virtually, and we’re just missing some of that. Like with Human Resources used to sit near us in the same office. So, I’d just pop my head in and ask what is going
on and maybe a question, but now we’re having to do everything online, through Zoom or Microsoft Teams. I just feel you lose some of those things virtually.

**Communication and body language.** Participants shared that, at times, communication was much different or more difficult in the virtual setting in comparison to face-to-face settings. Misinterpretations of text and electronic based communication was cited as a significant challenge. The inability to perceive body language and tone in written messages led to misunderstandings as well. Participants did share examples of how they coached team members to address such challenges including ways to avoid misinterpretations in emails and other electronic messages.

Participant 9 shared that the number of emails she received increased significantly after transitioning to the virtual environment. Participant 13 explained that it is more difficult to “get a real feel for the people in the virtual room than when you’re in an actual conference room or sitting across from somebody at a table.” She went on to say that “when you’re face-to-face there’s such an organic thing that happens, you know, because you’re in the same space.” Participant 12 stated the following concerning face-to-face communication versus virtual communication:

> When you are in a face-to-face setting, now, if it's a big group, it tends to drop off a little bit, but the engagement level tends to be higher. People are just not as comfortable multitasking in a face-to-face situation. So, I think it takes away from conversations when people are doing other things. Now, if it's other things that are related to the conversation that's different, but when you have a sense that people are not fully engaged in a conversation, it's very distracting to me.
Participant 8 shared that she enjoys face-to-face interactions, and it has been difficult for her to transition to virtual communication. She went on to say that it has been more difficult to contact physicians, because “before you could just walk around the hospital and find them.” Communication was cited as a challenge by participant 8 when she described herself as being “very used to being in-person” and that she feels she is “more suited for an in-person type leadership role” citing her focus on relationship building.

Not being able to see and interpret body language was mentioned by multiple participants as being a challenge in the virtual setting. Participant 12 said “there’s energy in a room, I read body language, and I see things on screen, but I feel energy in a physical space.” She went on to say, “I feel I have a more authentic experience when I’m in a physical space with people and I pick up on things in a different way.” She added that she prefers a physical, social environment over virtual and that “in order to get to know someone and make a good impression you need to have the full experience of being in-person.” Participant 9 shared a similar experience about being in-person versus virtual:

Being virtual, sometimes it's not as enjoyable. It uses up energy versus giving you energy like when you're in an in-person social setting or away from the work environment. There's just such a richness that you get from being in-person that you don't get on Zoom.

Participants also shared that in the virtual setting, they encountered situations where employees misinterpreted text-based communications and that they found text-based communication to be more difficult at times than face-to-face communication. Participant 15 said, “you can't read the tone of a text or an instant message, sometimes people interpret what you're saying as sort of aggressive even if you didn’t mean it that
way.” Participant 16 stated, “there are times where if a conversation were to happen over a phone or on camera instead of text or email it wouldn’t have been the same.”

Participant 8 shared that she has had to intervene and coach her employees at times to help them from misinterpreting text-based messages and creating drama. She went on to share the following:

We’ve talked to our staff about how emails come across and how you lose the voice and intonation, and you may take it wrong. You don’t know if someone is angry or not. I’ve coached my people and said to them if this person were sitting here with you, would you have said it to them the same way?

Participant 12 shared that she prefers face-to-face communication over text-based communication and that face-to-face can help to prevent information being misinterpreted. She shared:

I think that anytime you take away part of the information in the communication you risk misunderstanding. That's why I prefer a face-to-face every single time. I would rather have you and I looking at each other having a conversation. With email for example, you may read too much into it and there is no inflection or body language.

Technology. Participants shared that technology was also a challenge to their team members and themselves, especially when first transitioning to the virtual setting. A lack of training or support for new technologies, as well as technical issues, like echoes during meetings due to equipment errors and user experience, presented challenges in the virtual environment. Participants stressed the need for clear communication to guide team
members through technological challenges and to ensure support was available and
provided.

Participant 13 said “when we first went to this during the pandemic, the
technology part of it was challenging.” Regarding her team, participant 6 said, “They
were not ok in the beginning and thought the world was going to shut down and they
would never figure out how to do their job sitting at home using different technology.”
Participant 12 stated that she “initially faced a huge challenge” due to her lack of a more
technical background. She said she was comfortable with the technology she used before
transitioning but faced a learning gap related to new technologies after going virtual.
However, she went on to state “one of the things I noticed that I think is important to
point out is that I wasn’t alone in my lack of technological experience” and that she “felt
a very comforting sense of everyone being in this together.” Some of the challenge was
due to access to the proper equipment to work and collaborate virtually as illustrated by
participant 15:

It was a little bit of a shock at first. I think the first few weeks to a month, you
know, it was kind of fun, because it was like, oh, we're home, and then it started
to kind of get real, because of people's equipment. Maybe it didn't work exactly as
it's supposed to, and we weren't very used to meeting on Zoom.

He also shared that she finds “Zoom a little bit tougher to brainstorm and have that kind
of environment” and that “it’s harder to have conversations like we would in-person
around a table”. To further illustrate his point, he added the following about how the team
would collaborate prior to transitioning to virtual work:
We would reserve a conference room. We might have some food or whatever and
get a whiteboard out, and that's exactly what we did. We would brainstorm that
way, or even go offsite somewhere, and someone would be a designated note
keeper and capture the notes.

It was also noted that members did not know how to effectively use equipment and
technologies after transitioning to a virtual setting, and there was little or no training
available. Concerning the lack of training, participant 9 shared the following:

I praise using Microsoft Teams, but I get really frustrated by our IT team. They
give us tools and turn everything on, but they don’t provide training. That’s very
frustrating to me. I don’t think we could have gotten through all this without
Microsoft Teams, but I think we did a poor job of rolling it out and providing
people with education around it.

She went on to share an account about the confusion and challenges around the adoption
of multiple web-conferencing technologies:

I think another thing that was confusing was that we started out with Webex, then
went to Zoom, and then added Microsoft Teams. I mean come on, let’s just get on
a good platform for us to be able to carry out our business, because that’s our only
way of communicating these days. I can't even have a conference call with people
because that went away too. Now I have to set up a Zoom meeting to have a
conference call. Then when you finally get off camera, you're like, I just don't
even want to be on the Zoom anymore. If I see Zoom one more time, I’m going to
scream.
Participant 8 said, “a lot of these people went from only using their computers to look at email and it was really hard for them to understand all the technology.” She added, “they had to learn how to mute and if they had speakers they would have background reverb, and we had to buy headsets for everyone.” Participant 7 expressed that some of his initial issues with technology was related to his microphone. He said:

Early on there was a lot of echoes, and we fixed it eventually, but we had to figure out the issue and what was causing it. There is nothing worse than being on a meeting and either cutting out or causing feedback and echoes. You can’t communicate that way.

Concerning her team members, participant 6 shared the following about how she approached the challenge of technology:

I think they just didn't feel like they could do the same level of work without having me down the hall to ask questions or because of the paper format they were used to. That's how they functioned before, with paper. So, I was like, look, we can write notes on the scanned in document just like we have before, and everybody can send it to use by email. We don’t have it come through on physical paper. You can do it. You’re all experienced and educated. This is very possible.

In summary, participants experienced many challenges when transitioning to and working in the virtual setting. Career growth and visibility within the organization emerged as concerns associated with the nature of virtual work. Participants believed that virtual employees were somewhat discounted in comparison to their in-person counterparts. Additional challenges that face virtual employees were attributed to feelings of being disconnected and isolated from others within organization. Fatigue was
mentioned as a challenge due to the reliance on web cameras in the virtual environment, and due to back-to-back meetings and from being inundated with several meetings each day. Participants experienced issues staying connected to others within the organization, employees’ misinterpreting electronic communications, and reduced ability to rely on body language in the virtual environment. Finally, technology presented a challenge to leaders and employees, especially during the initial transition to virtual work.

**RQ2: In what ways did leaders adapt their leadership and management practices when transitioning to managing a virtual team?**

**Theme 3**

**Leading virtually with intentionality.** Virtual leaders found that many of the skills needed for leaders to be successful in face-to-face environments were also useful in virtual settings. However, virtual leaders found it important and necessary to be more intentional in virtual settings than in face-to-face work settings. Being intentional as a leader and in communication was mentioned by ten of the participants. Participant 10 said that “when you’re in an office you do a lot more unintentionally” but in the virtual setting “if they’re not on screen, and I don’t see or hear them, I just don’t know anything, so I try to be intentional and check on everyone.” He went on to say that he has experienced a boost in being more intentional and making more effort to connect with other employees because “we’re not bumping into each other anymore.” “It’s important to be intentional and check in, and I have to do that a bit more with virtual, but it just helps me to keep a pulse of everyone and our workload.” Participant 4 explained that after moving to virtual she was “drowning in meetings” and said it is important to be more intentional about scheduling meetings and ensuring that a meeting is necessary. Another participant, 16, said the following:
For me, I had to be really intentional. I scheduled one-on-ones with each of my analysts, but I would tell them they could reach out any other time they wanted. I also had to be intentional about doing something in-person with my direct reports, because if I don't put it on my calendar I’ll forget.

Participant 4 shared that she had to be more intentional about recognizing her team members, giving thanks, and celebrating their successes:

When you’re in the office, it’s easier to recognize somebody and speak to their successes than it is when you're remote. So, I send a lot of handwritten notes and little gifts every now and then, but I try to be intentional and purposeful in my actions.

Participant 13 said that she found that in the virtual environment she must be “even more intentional with building relationships.” She added “I think the key is being very intentional and getting out there and having some face-to-face time with these folks.” In relation to this, participant 17 said he believes it is good to have social events with the team and he says, “we’re much more intentional now about doing social events.”

Participant 9 explained, “casual conversations don’t happen as easily in virtual, and you have to become more intentional about social aspects.” She went on to say, “the first thing you do is go right into business and I had to start having some intentionality around personal conversations and socializing with people”, because “you don’t get those happenstance meetings in Zoom and can’t learn things by just bumping into someone in the hall.” She also became more intentional with her team members by scheduling a weekly meeting through Zoom, with cameras on, to catch up on personal and work-related items. Participant 8 found that she had to be more deliberate with her
communication in the virtual setting. Similarly, participant 14 said, “I think what’s
different for a virtual team is that I have to be intentional about just making sure people
know what they need to know and that I was updating the team regularly.” He said, “it
wasn’t going to happen in the hallway or in an office, so I had to start taking notes and
sharing those with my team, so I didn’t forget about it.” He concluded by reflecting on
how he feels he could have done a better job when he led in-person if he had been more
intentional back then, and that he “never had a reason to challenge myself in that way, but
so much good has come about from it, just by moving to become more intentional”. He
added that his team had to become more intentional about tracking projects, setting
timelines, and making sure they were hitting deadlines. “I think we were down the hall
from each other it happened more fluidly, but after going virtual we had to be more
intentional about it.”

In summary, participants described the need for leaders to be more intentional in
the virtual setting in comparison to traditional, in-person settings. While many leadership
skills translate to virtual settings, being purposeful in actions and communications was
described as crucial to the success of the virtual leader. Participants stressed the need to
be intentional in checking on team members due to the absence of spontaneous in-person
interactions that would have taken place in the office. This intentionality includes
scheduling meaningful meetings, acknowledging team members, and celebrating their
achievements deliberately. Participants also expressed that building relationships required
extra intentionality, with some suggesting opportunities to maintain some in-person
interactions with their team members. Social events and scheduled meetings were cited as
ways to fill the void of casual office conversations and to help foster social aspects
intentionally. Communication in the virtual environment became more structured and proactive, with leaders making efforts to ensure their teams were well-informed. Participants reflected on the positive outcomes of increased intentionality, not just for leaders but also for team collaboration and project management in the virtual environment.

**Theme 4**

**Adapting one's leadership style to the virtual setting.** Leaders do not entirely change their leadership style when transitioning to and working in virtual settings, but they do find it necessary to adapt some aspects when leading virtually to be successful and meet the needs of their employees. Participants 1, 10, 13, and 17 did not feel their leadership style changed after transitioning from face-to-face to virtual leadership. Participant 10 said, “I think a lot of my leadership style is just how I’m wired so it’s natural for me to do certain things regardless of the situation.” He went on to say that many of the skills and traits needed for face-to-face leadership carry over to virtual leadership. However, he added that he no longer only focuses on solving problems, but also on helping and supporting his team members more. Participant 4 explained that as her background is in organizational development she focuses on encouraging and empowering others, and that she is not sure her leadership style really changed after becoming a virtual leader. Instead, she feels she is at a point now where she can be successful without having to sit next to someone.

Participant 11 said that she has worked on improving communication with her team, while “trying to be very intentional and a role model”. Additionally, during the pandemic she began working on exploring bias in the workplace as a result of learning opportunities within the organizational and due to events going on in the world at the
time. She has taken more notice to explore her own biases and how those may impact her communication as a leader. Participant 15 said he has more trust in his team now and has “backed off a little bit to just let them do their thing.” He also shifted his style to having a stronger focus on team building and getting to know his team on a more personal level. He shared that:

At some point I felt like I was maybe treating them like machines, like, here’s your projects, so go do them, and then I’ll talk to you next week. But it doesn't always have to be so serious, where everything must have deeper meaning. I found I need to keep in touch with the human element more. I think if you don't work at it, if you don't stay conscious of it, and be deliberate about it, that sometimes the virtual thing can devolve into like us feeling like machines, you know, and just like to sort of these soulless machines carrying out tasks.

To stay more connected in the virtual setting, participant 8 said she has adapted her style to be more personable with her team members and show appreciation more visibly, in tangible ways. For instance, when a team member has a birthday, she shared that she now sends the employee an email with a video clip included, wishing them a happy birthday, because she cannot just walk down the hall anymore and wish a happy birthday. She says she has had to change her style to embrace technology better.

Participant 12 said that her style has changed because she now tries to have a more holistic view of each team member, recognizing the diversity of each employee, and using tools like DiSC (Dominance, influence, Steadiness, and Conscientiousness model) assessment profiles to better understand the needs of each team member. She shared that prior to the pandemic she went from having a large team of 25 employees in-
person to having only a team of 3 virtual employees. She went on to say that “instead of appealing to the masses” she had to transition to leading a much smaller group “who have very specific styles, so you have to learn those styles, and adjust to those styles.” She added that she has even reduced the amount of time she is in contact with each team member, being aware of their styles and how constant contact does not fit their needs.

Finally, she shared the following account:

In my world, before I was virtual, there was not a day that went by that I didn't stop by everybody's desk and say, hey, what's going on? How is your day going? What are you working on? Just to check in with people. However, I try to be very aware now that popping in on somebody may be an interruption. I try to be very aware that people are working hard on things, and that it can be a distraction, but at the same time I am trying to balance that with my style.

Another participant, 4, shared that after transitioning to virtual leadership, she began working with a leadership coach to assist her with learning to not micro-manage her employees and extend more flexibility to them. She also shared that another aspect that changed concerning her leadership was recognizing that a meeting is not necessary for every issue that comes up. She said, “now that we’re virtual it’s so easy for someone to put a meeting on your calendar and pretty soon you’ll be drowning in meetings.” She went on to say that she has adapted to be more intentional about meetings and recognizing her priorities. She said, ”I’m much more intentional about what gets my time, where my priorities are, who I invite to meetings, and what should just be a phone call or an email instead of a meeting.” She concluded by stating “so what has really changed is my time management skills.” Participant 7 said the virtual environment has allowed him to let his
guard down more and his style has changed in terms of being more “real” and honest with his team.

In summary, when adapting their leadership style to the virtual environment, the participants found it was more about making minor or subtle adjustments to their leadership style rather than a need for a complete transformation. Some participants, including 1, 10, 13, and 17, felt their core leadership style remained intact and that skills required for in-person leadership were often applicable in the virtual setting. Examples of this included the importance of providing support to team members focused on problem-solving, improving communication, and addressing bias in the workplace. Other participants learned to trust their teams more and shifted towards emphasizing team building and doing a better job of recognizing the human element. To maintain connections in the virtual setting, participants adopted a more personable approach, including activities like celebrating events such as birthdays with the team. It was also emphasized that it was important to understand the needs of individual team members using tools like DiSC. Leaders also adopted more purposeful interactions with their team members. Time management was also discussed along with the importance of being more intentional about meetings and priorities. Finally, it was expressed that the virtual environment allowed for leaders to be more authentic and honest with their team members.

**Leadership styles, skills, and traits when managing virtually.** Participants described various leadership styles, skills, and traits they felt are important to leading and managing virtual employees. Existing literature provided a framework for analyzing participant responses about leadership styles and skills within the context of virtual
teams. Transformational leadership is characterized by a leader's ability to raise motivation and morality among their team members. It focuses on understanding the needs and motives of followers and helping them reach their fullest potential. This leadership style has been found to be particularly beneficial for virtual teams relying on technology-based communication (Purvanova & Bono, 2009; Ruggieri, 2009). Transformational leadership, with its emphasis on fostering respect, pride, innovative problem-solving, and role modeling, is linked to higher team achievement and performance in virtual team settings (Purvanova & Bono, 2009). Leadership within virtual teams can emerge collectively among multiple team members. This shared leadership approach involves team members stepping in and contributing to leadership functions as needed. Shared leadership fosters collaboration, trust, and knowledge sharing, leading to improved team experiences and performance. It is positively associated with constructive interaction styles and negatively associated with defensive interaction styles (Balthazard et al., 2004; Hill, 2005; Shuffler et al., 2010).

Within existing literature, effective communication is viewed as a fundamental skill for virtual leaders since they must communicate clearly, concisely, and transparently to establish their roles and responsibilities within virtual teams. Stimulating communication through setting team norms, making transparent decisions, and empowering team members can lead to virtual team synergy and stability (Berry, 2011; Kayworth & Leidner, 2002; Roy, 2012; Ziek & Smulowitz, 2014; Feitosa & Salas, 2021). Virtual leaders also benefit from skills related to managing conflict and diffusing tense situations (Brake, 2006; Roy, 2012). Additionally, emotional intelligence is beneficial to virtual leaders in order to assess and understand how their behaviors affect team
members. Leaders should be able to self-regulate and evaluate potential outcomes before acting. This allows leaders to motivate team members, show empathy, build relationships, and promote knowledge sharing, trust, and problem-solving (Roy, 2012).

A common theme among the participants was that being effective at leading and managing virtually relies on many of the same styles, skills, and traits that are important when leading in-person, but the participants felt the need to adapt some aspects to better fit the nature of the virtual environment. Participants described and listed 39 skills and traits when asked what leadership skills and traits are essential to managing a virtual team. Table 6 lists responses from participants that indicate what skills and traits they felt were important to leading virtually.
Table 6

*Skills and Traits Perceived as Being Important to Virtual Leadership*

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<thead>
<tr>
<th>Participant #</th>
<th>Skills and traits mentioned by participants</th>
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<tr>
<td>1</td>
<td>Accountable, communicates effectively, kindhearted, personable</td>
</tr>
<tr>
<td></td>
<td>Builds relationships, coaches, delegates, flexible, optimistic, provides support, self-aware, solves problems</td>
</tr>
<tr>
<td>2</td>
<td>Delegates, technical knowledge</td>
</tr>
<tr>
<td>3</td>
<td>Communicates effectively, delegates, empowers, inclusive, organized</td>
</tr>
<tr>
<td>4</td>
<td>Accountable, communicates effectively, organized, visionary</td>
</tr>
<tr>
<td>5</td>
<td>Adapts, coaches, delegates, empowers, honest</td>
</tr>
<tr>
<td>6</td>
<td>Authentic, builds trust, delegates, flexible, honest, intentional, transparent</td>
</tr>
<tr>
<td>7</td>
<td>Technical knowledge</td>
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<tr>
<td>8</td>
<td>Accountable, advocates, builds trust, compassionate, delegates, provides feedback, provides support, visible</td>
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<tr>
<td>9</td>
<td>Adapts, coaches, organized</td>
</tr>
<tr>
<td>10</td>
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<tr>
<td>11</td>
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<tr>
<td>12</td>
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</tr>
<tr>
<td>13</td>
<td>Accountable, intentional, proactive, provides support</td>
</tr>
<tr>
<td>14</td>
<td>Adapts, delegates, empowers, flexible, provides support, technical knowledge, time management, transparent</td>
</tr>
<tr>
<td>15</td>
<td>Adapts, builds trust, flexible, honest, intentional</td>
</tr>
<tr>
<td>16</td>
<td>Coaches, communicates effectively, delegates, emotional intelligence, empowers, fair, honest, inclusive, integrity, participates, role models</td>
</tr>
<tr>
<td>17</td>
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</tbody>
</table>

Table 7 lists the skills and traits by frequency across participants. The most described skill or term was delegates with nine participants discussing how important it is in virtual leadership to not micromanage, and instead use a macro-management approach that delegates tasks and responsibilities. Being able to adapt was the second most mentioned skill or trait for a virtual leader to be effective. Being accountable, communicating effectively, empowering, and coaching were each mentioned by five participants. The skills and traits were then categorized into clusters based on thematic
relevance and commonalities. Ten categories emerged that included accountability and integrity, adaptability and flexibility, advisory and coaching skills, communication and collaboration, emotional intelligence and well-being, empowerment and trust, inclusivity and intentionality, organizational skills, positive attitude, and visibility and engagement. Based on this analysis the most prevalent category of skills and traits described by the participants was communication and collaboration with 9 skills and traits representing the category. This finding suggests the importance of effective communication and collaboration skills in virtual leadership, and that participants recognize the critical role of communication in maintaining team cohesion and achieving common goals in a virtual environment. Empowerment and trust represented the next largest category corresponding to 6 skills and traits. This finding reinforces the significance of trust-building and empowerment in virtual leadership. Refer to table 7 for a full breakdown of the frequency of skills and traits across the participants including the associated categories of each.
Table 7

*Frequency of Skills and Traits Across Participants*

<table>
<thead>
<tr>
<th>Skill/trait</th>
<th>Frequency across participants</th>
<th>Category</th>
</tr>
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<tbody>
<tr>
<td>Delegates</td>
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</tr>
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<td>Accountability and integrity</td>
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<td>5</td>
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<td>Empowers</td>
<td>5</td>
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<tr>
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<td>4</td>
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</tr>
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<tr>
<td>provides support</td>
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<td>4</td>
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<tr>
<td>Intentional</td>
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<td>Organizational skills</td>
</tr>
<tr>
<td>Transparent</td>
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</tr>
<tr>
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<td>Organizational skills</td>
</tr>
<tr>
<td>Advocates</td>
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<td>1</td>
<td>Accountability and integrity</td>
</tr>
<tr>
<td>compassionate</td>
<td>1</td>
<td>Emotional intelligence and well-being</td>
</tr>
<tr>
<td>emotional intelligence</td>
<td>1</td>
<td>Emotional intelligence and well-being</td>
</tr>
<tr>
<td>Fair</td>
<td>1</td>
<td>Accountability and integrity</td>
</tr>
<tr>
<td>Integrity</td>
<td>1</td>
<td>Accountability and integrity</td>
</tr>
<tr>
<td>Kindhearted</td>
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<td>Emotional intelligence and well-being</td>
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<tr>
<td>Listens</td>
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<tr>
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<td>Positive attitude</td>
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<td>Participates</td>
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<tr>
<td>Passionate</td>
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<td>Positive attitude</td>
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<td>Proactive</td>
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<tr>
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</tr>
<tr>
<td>solves problems</td>
<td>1</td>
<td>Organizational skills</td>
</tr>
</tbody>
</table>
Frequency of Skills and Traits Across Participants

<table>
<thead>
<tr>
<th>Skill/trait</th>
<th>Frequency across participants</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>systems thinking</td>
<td>1</td>
<td>Organizational skills</td>
</tr>
<tr>
<td>time management</td>
<td>1</td>
<td>Organizational skills</td>
</tr>
<tr>
<td>Visible</td>
<td>1</td>
<td>Visibility and engagement</td>
</tr>
</tbody>
</table>

Some participants mentioned specific leadership styles when describing their leadership, including transformational, participative, and servant leadership models. Participant 11 said she uses and relies on the transformational leadership model. She went on to say that she wants her employees to thrive and therefore finds it important to work toward providing the ability and tools for them to do so. Participant 13 related her style to being most closely aligned to the participative and servant models. She said, “I really don’t like be authoritative, unless I have to and there is no other option.” Participant 8 also called out the transformational and servant leadership models as being foundational to her leadership style. Participant 7 explained that she is “not a micromanager” and she believes that “people in the roles on my team are there for a reason, because they’re talented, experienced, and qualified.” Participant 7 said that he does not micromanage and encourages his team members to be honest with him and let him know when they disagree. He said, “I feel that if you take care of people, everything else will usually fall into place.” He added “I try to be as authentic as possible to who I am and to my team, so they feel comfortable.” Participant 6 said she relies on approaching leadership utilizing multiple styles, which may be interpreted as being an adaptive leader. Only one participant, 5, described her style as authoritative, which she contributes to the high level of accountability and having to drive results required of her role. However, she went on
to say that she is “not a tyrant and does ask for feedback when things aren’t going great but drives results through executing tasks and collaboration.”

In summary, the participants identified a range of leadership skills and traits they considered to be essential for effectively managing virtual teams. These included accountability, effective communication, adaptability, delegation, empowerment, building trust, flexibility, honesty, providing support, and coaching, with many participants emphasizing the significance of delegation and adaptability. These skills and traits were seen as critical for addressing the unique challenges of virtual leadership. Several participants mentioned specific leadership styles that influence their approach, including transformational, participative, and servant leadership. The participant experiences also highlighted the importance of creating a thriving environment for their teams and being less authoritative when possible. Only one participant described their style as authoritative, emphasizing accountability and results but noted the importance of feedback and collaboration. Overall, it was emphasized that virtual leadership required a combination of traditional leadership skills and adjustments to suit the unique demands and dynamics of the virtual environment.

**RQ3: In what ways did leaders leverage people and technology differently when transitioning to managing a virtual team?**

*Theme 5*

**Communication in the virtual setting.** Communication is important because it is paramount to virtual employees staying connected and collaborating effectively, and for virtual leaders to build trust and psychological safety. Participants described the importance of verbal cues, online etiquette, body language, collaboration, socialization,
electronic communication, and providing feedback. The tools used to communicate in the virtual setting were also discussed.

Multiple participants discussed team dynamics and team member personalities. Specifically, the topics of introverts and extroverts in relation to virtual teams and communication were shared. Participant 14 said that he had to constantly encourage team members to talk in virtual meetings. He said that he has some team members who speak freely and share often, but about half of his team is the opposite and he found it exceedingly difficult to get those members to engage in conversation, especially in virtual group settings. Similarly participant 16 shared that some of her team members are very shy and do not enjoy being on camera, so she does not force them to interact or be on camera in virtual settings. While participant 9 said that she has a mix of introverts and extroverts on her team, so communication in the virtual setting was difficult at times.

Participant 13 said it is difficult in the virtual setting to “read the room” and know if people are comprehending and everything is ok without being able to rely on nonverbal cues as much. Participant 10 said that he feels that being able to see people speak on camera in the virtual setting is helpful, because it allows others to notice nonverbal cues that would be missing with audio only. Participant 16 said that without cameras, information can be miscommunicated and taken the wrong way, because the visual cues are lacking. Participant 7 said that cameras allow him to connect better even though people are not in the same room, because he can see someone shaking their head in agreement for example. He feels that cameras allow for better camaraderie and rapport in virtual settings. Participant 1 said “you may not be able to notice from body language when someone is overwhelmed. She said that sometimes her team members preferred to
not use web-cameras early in the morning, and she understood that. She went on to share
the following about verbal cues and body language in the virtual setting:

I could tell there were times that my team would maybe be overwhelmed, and I
couldn’t see their body language, but I know them well. I know from their voice
when something's up, and I know they're overwhelmed. So, I would have to pay
attention to these verbal cues to make sure they've got what they need and the
support they need to help with their projects.

Participant 12 expressed that she has learned to adjust her communication to fit the
diverse needs of her team and be more inclusive in her communication. She said she is
personally more comfortable when cameras are on, but she understands that people have
different levels of comfort and preferences. Participant 17 explained that if he were newer
to the profession, he thinks he might have found virtual communication more challenging
because of the lack of body language. He also said that he relies on web-cameras to
address the lack of body language and non-verbal cues in virtual meetings:

In Zoom, you can see when a person is looking at another screen or they're
looking down at their phone. I think being an inclusive leader means you also
must draw people out and have them contribute to the conversation. You must be
keener and more aware of that. I think it’s easier to read people in a room on
Zoom with cameras.

Handling conflict and delivering sensitive information in the virtual setting was
also mentioned in relation to the use of web-cameras. Participant 12 said that it is
important to deal with conflict because “it can be overpowering and it’s not something
you just want to brush under the rug.” Participant 9 said that difficult messages are harder
to deliver in the virtual setting. She recalled an example where she had to share some sensitive, negative information with a large group in Zoom and she started seeing cameras turn off as the session progressed. She said it was difficult to deliver this message without being able to see people’s reactions and with everyone muted.

Participant 15 provided the following insight about being able to handle conflict synchronously with a web-camera or on the phone:

I have encountered conflict, and it’s really difficult when cameras are off. For me, I like to read people's facial expressions. So, with cameras on even it's a little better. Personally, conflict is always uncomfortable for me, but if I've got something to tell somebody I want to at least have a camera on and be able to look at them and talk through it. Even a phone call to me is sometimes more helpful than Zoom with the camera off, and I don't know why that is. But I do struggle when I cannot see the person, because I don't know how to interpret their pauses. I mean you can kind of listen to the tone of their voice. I do feel like my team tries to handle conflict sometimes through instant messages or email, and I'm like, just pick up the phone and call the person because there’s misunderstandings that happen through text-based communications.

Participant 1 said that she addresses conflict in the virtual setting by using the phone to call her team members or upset customers to speak through the issues synchronously. She added, “it’s easier to not be as nice in email or in the virtual setting than it is in-person.”

Participant 10 believes that there is more “posturing” in the virtual setting because of being “behind a keyboard, and not in the same room, people say things more unfiltered virtually.” Before the pandemic, participant 11 would bring the parties together who had
a conflict, but she found that more difficult after moving to virtual and had to adjust her process for dealing with conflict. One method she used was to call the individuals separately to understand the conflict, and then brought them together in a virtual meeting to work through the issues. She also began using the DiSC assessment profiles to understand personal dynamics to address conflict. Participant 4 said that she found that “when you meet in a synchronous format, it is easier to resolve most issues.”

One participant, 18, mentioned that she likes to take notes whenever she meets with anyone, and then later reviews those notes to reflect on the conversation and next steps. She said, “when it comes time to have those conversations, I can have my notes sitting right in front of me on my screen.” She went on to add, “if it’s a difficult conversation, for example some coaching that needs to happen, I want to word things correctly, and I’ll have it right there on my screen, but in person that would have been much more awkward to pull off.” She described a specific situation where two members of her team were having conflict with each other. To handle this in the virtual setting, she spoke with each of them separately to find out the story from each side. She also asked for guidance from her supervisor on ways to handle the situation. She said the event was a learning opportunity for her and it was somewhat difficult also because of the emotion involved, since each of the team members involved were also friends. She concluded by saying they addressed the communication issues and conflict by mediating between the two and establishing better role clarity.

An approach that participant 8 used when dealing with conflict was to make sure the conflict was relevant to the discussion at hand, and if not, to plan for a later discussion to address the underlying issues. She shared the following approach:
When addressing conflict sometimes you have to say let's put a pin in it for now and let's put it on the board. We'll follow up later if it didn't fit within the context of why we were on that call. Then you can always use that as kind of deflecting the conflict and say, okay, we're going to deal with that in a separate scenario, because it's not germane to what we're discussing. Now, if it is something that's germane to the conversation then I ask everybody to take a pause and reiterate what was said. Then I ask if that is how you intended it to be heard and work through the conflict using those skills I would use in any setting, virtual or not.

Participant 12 said that she handles conflict by acknowledging the conflict, creating a dialogue between the involved parties, and proactively addressing it in a timely manner. She said she did this in face-to-face settings and does the same in virtual. Participant 14 said that he manages conflict on his team by “naming it and getting in front of it”.

It was also mentioned that it is important to have team members on camera when addressing conflict in the virtual setting. Participant 16 stated that “it helps if you can get people to be on camera, and sometimes that’s really challenging if you haven’t created the right environment”. She went on to say, “that’s one of the dangers of how I manage and lead in this virtual world is that I have not mandated that people need to be on camera so if there is a conflict, I say that everybody needs to be on camera.” Participant 4 shared that she always tries to handle conflict using video, if possible. She said that if it is not possible to meet with someone in person, she relies on video conferencing, because she feels it is not appropriate to have a difficult conversation through text messages or email. She said she wants to be able to see the other person’s face. She went on to say, “it’s always easier to be more aggressive or assertive in a conversation or situation when
you’re in the same space or not on camera.” She added “I think people sometimes hide and feel safer when they’re not on camera.” Participant 9 said she found managing conflict in the virtual setting to be difficult because she “can’t read their body language as well or at all, if cameras are off.” She went on to say that before the pandemic she would bring individuals together in the same room to address conflict, but in the virtual setting she must mediate the conflict through technology and not everyone has access to cameras, so that aspect can be difficult. Participant 7 said “we’re all human, and we’re going to make mistakes, we’re going to say things we don’t necessarily mean, but allowing grace to yourself and others is key.”

Participants described multiple ways they build trust and psychological safety among their teams in the virtual setting. A primary theme expressed among the participant experiences focused on effective, intentional, and open communication. Participant 1 described having open and personal conversations with her team members in which they would discuss their personal lives including topics related to their family life, children, and pets. She said that she had this level of communication with her existing team members prior to transitioning to a virtual team, but when she onboarded new team members after going virtual, she made sure to open up to them about who she was personally and build strong relationships, like she had done with her existing team. She said it is important to help her team members to “laugh and have fun” so they would feel comfortable talking to her when needed.

Participant 10 said he promoted an environment among his team where “no question is dumb, even if you ask the same question five times”. He said his team “has a very open environment” and his team has open lines of communication to other
departments to other leaders. He added that he would check-in with his team members if “something didn’t sound right” and talk through the situation in a supportive manner, instead of punitive. He expressed that “it is important to provide an environment where you can make a mistake and exercise grace.” He went on to say that it is important to have difficult conversations though when needed, and not avoid those, because that is not fair to the employee or the organization. He went on to talk about the importance of empowering employees to make decisions and handle situations. He said, “I want to help them gain the experience they need to handle it on their own in the future, so that is a lot of what I’m doing to build trust and mental support within our team.” Similarly, participant 2 described providing an environment that is understanding of mistakes and more forgiving than punitive. She said, “I like to talk about the times that I’ve made mistakes, and what I’ve learned from those mistakes so there’s a sense that you know if you make a mistake, it’s not going to be punitive.” She added “I’m just trying to respect them, and I don’t want them to stress out in a conversation with me, I want to be respectful of where they are in their lives.” Participant 12 explained that she builds psychological safety and trust by being vulnerable. She said, “it’s about admitting when I don’t have the answers or when I make mistakes.” She added that another important aspect for her is to “always be open to improvement and new processes.”

Participant 11 said she uses one-on-one meetings with her team members to build psychological safety and encouraging them to bring their frustrations and concerns to her so she can provide support. She said a technique that she has used with her team is to ask follow-up and probing questions to better understand their concerns and so she can have a better view of the whole picture. She added that a less intrusive technique she uses with
her teams is to say “tell me more about that” which often helps them to be more open about the situation and provide additional details. She concluded by saying “I think using that kind of language helps me to gain more insight.” Participant 13 attributed her building of psychological safety and trust to being intentional in her actions and communication. She said, “I keep coming back to being very intentional about relationship building with every member of team, because that is so crucial when you’re virtual.” She described that when she does have conversations with her team members that she is intentional about asking about their personal lives and finding ways to make sure they know she cares. An example she provided was “I might ask how is your kid’s basketball season, how is your dog, or just how are you doing?” She added “it’s important to make those personal connections, it’s so important that leaders be able to do that because people need to know we care.” Participant 5 believes it’s “important to understand what’s really driving behavior, because everyone is going through stuff, so it’s important to be consistent in every interaction.”

Participant 15 said that he feels like his team members know they can come to him at any time if they have an issue, or just need to talk. He said he tries to be there for them, especially in times of need. He provided an example where he attended funerals when a family member of one of his employees passed away. He also explained that since transitioning to virtual he has engaged in various educational opportunities, including internal webinars focused on topics like psychological safety to improve his ability to lead and provide support to his team. He shared that the move to virtual helped him to reflect and improve on his leadership. He added that he began researching and better communicating any opportunities that were available to his staff, such as
counseling services provided by the organization at no charge to employees. Participant 6 said that she has a “touchpoint at the beginning of the week” where she asks if her team members are feeling stressed or overworked, or if there is anything that she can help to take off their plate to help reduce the stress and workload. She said has tried to build a “safe space where they feel comfortable telling you what is going on, because it’s different on Zoom call than if you’re in the office with the door shut.” Participant 7 also mentioned being intentional about creating a safe space for his team members to speak about their concerns, honestly and respectfully. He explained “my mantra is that as a manager, the people are more important to me as people than they are employees, and I make sure they’re taken care of.” He also added “if they’re having communication problems with someone, or a sick family member or animal, whatever is going on, I want to give them that space so they can do what they need to do and have that work-life balance.”

Encouraging open conversations but setting up boundaries was also described in ways to promote psychological safety and build trust among virtual teams. Participant 8 said “one of the things we do during our huddles is allowing everyone to have freedom to have open conversations but also setting up boundaries up front like be respectful, be kind, you can be direct without being degrading to anyone.” She added “there have been times where conversations have gone in the wrong direction, and those times I had to express that we hear the concern, but this may not be the right time to have this conversation.” She said when situations like that occur, she asks the employee if she can follow-up with them outside of the meeting to learn more about the situation and bring it back to the group later, if needed. She said, “it’s important to really hear people and make
sure that we act like we’re in a room together, just like if we were in person, because if we were in person you would not be sitting there working on your computer or playing on your phone while other people are in the room.” Participant 14 said he found it difficult at times to get his team members to speak freely and share their concerns during virtual meetings. He said he has worked on getting better at encouraging his team members to speak up during meetings, but he believes the virtual group setting is not as comfortable to some of his team members when compared to when they were able work together and meet in person. He also shared that when his team members do shut down that he somewhat feels like he has failed as a leader, and that he could have done a better job to address the situation and environment. Participant 16 also expressed difficulty with her team members having open communication with her in the virtual environment. She said, “it’s much harder virtually than in person to know if someone is going through something, like a miscarriage for example, or whether it’s work related or from their personal life.” She added that “when in person you can walk by and see it on their face, and maybe put a hand on their shoulder and talk to them to get them to open up, but in the virtual environment that is just challenging.” Participant 9 shared that her team somewhat “stumbled at first” after the transition to virtual. Her team met virtually three days a week for a half an hour in the morning, but they felt the communication was forced and awkward at times. She said, “it was awkward because people didn’t know what to say, but after just a short amount of time they began to open up and feel like it was a safe space to talk, without being judged, and they could even talk about their home challenges.” She added “we’re a pretty close team now, and I just think it’s having that
safe space to talk, and they knew that they could ask me for help if they needed something, if they needed an obstacle or barrier removed.”

The importance of building and maintaining trust in the virtual environment was discussed and the topic of trust was often described in conjunction with psychological safety. Weekly team huddles were attributed to building trust by participant 17. Similarly, participant 8 also provided examples of open communication in team huddles as an important aspect of trust among her team. She shared “we have a good group, they’ve been open and transparent, and feel comfortable talking to us about their struggles.” She added that setting up boundaries and showing respect were key factors in building trust through virtual huddles and meetings. Participant 1 said “I don’t need to see them every day on camera to make sure that I know they’re working, because I trust my team and I know they are.” She added that her team members can “get up and go take a lunch, and you don’t have to tell me where you’re going.” She went on to share that if a team member is going to be out longer than normal, such as appointment, that a simple text message is all she expects from her team members. Participant 12 also expressed that she trusts her team which she feels helps to build their trust of herself and of one another. She said, “trust is a key element, and I think a lot of people feel I’m a trusting person, and I also have good reason to trust the team I have because everyone on the team is extraordinary at what they do.” Along the same lines, participant 9 said “I believe that people in the roles on my team are there for a reason, they are talented, they have experience, they’re qualified, and I trust them, I’m a very trusting leader.” Participant 5 explained that she is open, honest, and transparent with her team members and others in the organization. She said that she “hates being blindsided” so it is important for her to
have a trusting environment with her team where they can be open, honest, and transparent with one another. Participant 16 believes that building trust in the virtual setting involves “not having your thumb on your employees and everything they do, you gotta create an environment of trust and go from there.” Similarly, participant 6 said that a key to her success as a leader, especially in relation to trust, is simply having trust in her employees and trusting they will get their work and tasks done, and if they need support she will provide it, but also expects them to be open with her when they need support. She explained that she builds trust in the virtual setting the same ways she did when her team was in the office, and part of that is to set clear expectations with her team.

Participant 10 believes that he builds trust by removing obstacles for his team members. He provided an example in which his team members could not perform tasks optimally due to not having the proper Adobe application licenses, so he assured his team he would resolve the issue and followed through with acquiring the necessary tools and resources they needed to do their work. He also said that he encourages his team to solve problems together, which he feels also builds trust and relationships among his team members. Participant 7 attributed the trust on his team to not micromanaging his team members and simply trusting them because he knows “the work is being completed and done well.”

Participant 11 said she builds trust through communication and following through on expectations. She provided the following statements describing this experience:

The one thing that I always try to do is make sure I follow through on expectations. I just believe it’s really good to follow through whether it's written
communication or making a phone call, whatever I can do, because I just think that builds trust.

Participant 13 said “I love to build consensus, and overall, my group, they are honest with me, and they’re direct with me when they have an opinion.” She said she also appreciates her team members feeling comfortable to bring forward their opinions and ideas which she prefers to hear before she throws out her own ideas. Participant 15 believes that his team has gained more trust after transitioning to virtual during the pandemic. He said that he “backed off a little and just let them do their thing” and it ultimately paid off for his group with improved communication and trust. Participant 14 said that he has worked to build trust on his team, but he has noticed that sometimes it takes time in virtual meetings and one-on-ones for his team members to open up, but he says eventually they do, and he feels overall his team does have a trusting environment.

Participant 2 explained that building trust based on her experience centers on respect. She said that she is respectful of her team members and finds ways to not cause extra stress when having conversations with them, especially difficult conversations or when providing feedback. She also said she respects and understands her team members have lives outside of work and she never wants that to be an issue. She builds trust by respecting her team members’ lives and their needs. She said it is also important that “in times when somebody wants to talk to me about something private and personal, keeping their trust is pretty important as well.”

It was conveyed by Participant 4 that she feels that building trust in the virtual environment is different than being in person and it presents unique challenges she did not face when her team was in the office. She explained that:
I think one of the biggest challenges for me is just that it’s a different kind of trust. So, when you're in the office and you see someone every day, you know they're at work, and you know they're working. Our team is very busy. We're very productive. We have a lot of going on and goals we have to meet. So, we do good work, but when you send everybody home and you're not with them every day it's a different level of trust because you're not with them every day anymore. I think that's a big challenge, so I just spend a lot of time talking to them, trying to earn their trust, and sometimes they do share things with me that are personal, that they don’t want me to share, and they know I’m not going to. I think it’s about just making myself available to them.

In summary, effective communication is crucial in the virtual work environment for fostering connections among employees, enhancing collaboration, and enabling virtual leaders to establish trust and psychological safety. Participants highlighted various communication aspects, such as verbal cues, online etiquette, body language, collaboration, socialization, electronic communication, and feedback. They noted the value of using appropriate communication tools for virtual teams. Additionally, participants discussed team dynamics in relation to introverts and extroverts, recognizing that virtual settings may require different approaches to encourage introverted team members to contribute. Concerns about the loss of nonverbal cues in virtual meetings were expressed, with some participants emphasizing the importance of video communication to capture those cues and facilitate better understanding. Handling conflict in virtual settings was also discussed, with a consensus that video meetings or phone calls are more effective for addressing conflicts compared to text-based and
electronic communications, and participants shared various strategies for managing conflict in the virtual environment. Finally, trust and psychological safety were seen as fundamental to effective communication in the virtual environment, which is developed through open, intentional, and respectful communication. Weekly team huddles were found to be effective in building trust, and participants emphasized the need to create an environment where team members felt safe sharing their concerns and challenges, while also setting boundaries and demonstrating trust in their employees to maintain a healthy virtual work atmosphere. Building trust and psychological safety were recognized as ongoing efforts requiring vulnerability and understanding among leaders to encourage their teams to be open, honest, and transparent. Overall, the virtual environment requires leaders to adapt their communication and trust-building strategies to maintain effective relationships with their teams.

Theme 6

Role of technology in virtual leadership and work. The use and adoption of technology is a key to being successful in virtual leadership and virtual work, however, technology can also present barriers and create learning opportunities. A topic that was discussed across the interviews was the use of web cameras and the adoption of web cameras and related technologies, like web conferencing, chat, and file sharing applications used to collaborate in the virtual setting. Multiple participants stated they encourage the use of web cameras during virtual meetings and collaboration, but do not typically require or mandate it. Participant 1 said that she does not mandate the use of web cameras and felt that “sometimes some of them are uncomfortable.” She said her team does have a bi-weekly meeting with the larger department and web cameras are required during that meeting, but not other meetings. She went on to say that when she
worked in the office, there were people on her team that didn’t always “love to come out of their cube all the time and they mostly stayed in their cubes”, and in the virtual setting she believes those individuals may not be as comfortable on camera, so she doesn’t mandate being on camera for most situations. Participant 10 explained there was some adjustment period with web cameras when first moving to virtual, but people became more comfortable and relaxed as time passed. People became more comfortable with eating during meetings, especially if the meeting overlapped with their normal lunch or they had back-to-back meetings and had to work a meal in. He said he still encounters some departments though where no one will use a web-camera, which can create awkwardness and reduce engagement. He also shared that his personal experience was that he had to be more intentional about camera use because it did not feel natural at first. He concluded by saying that he sets expectations by letting his team know when he does not expect them to be on camera and has “no camera needed days, which they really appreciate.”

Participant 13 said that mandating web cameras in meetings was impossible because some team members simply did not have them and were never provided cameras by the organization. Participant 17 said that his team set standards when they moved to virtual work, that included items like when camera use is expected. He said that some of the conversations conducted by his team are “high stakes conversations around compensation, that create a lot of emotion” so adopting web cameras for those conversations was crucial. He explained that “we had to create standards to which people had to live by, so if they were on with a hospital president talking to a physician, they had
to be on camera, but if it was just us internally, it was preferable that they be on camera, but they didn't have to be.”

Participant said that one of her team members that works from home has a special needs child who is often in the background, and therefore, she does not require cameras in most situations to provide her team members with the necessary flexibility and comfort of not being required to be on camera. She went on to say that when she meets with her direct supervisor, they often use cameras, but she does not require her team members to do so. She also mentioned that it was important to use web cameras for interviewing in the virtual setting and that the technology was easy to use:

I don't make it mandatory with my team, but I feel it’s critical to have people on camera when doing interviews because none of those were done in person.

Cameras were a very crucial piece to that aspect of being virtual and the Zoom platform has been very easy to use.

Participant 8 said that she “likes to see their faces” and “once everyone had that capability it was easier to do daily huddles, seeing their faces, chatting with them, and connecting in that way, it’s been a benefit.” She said web cameras allowed to her connect better with her team members as a manager. She went on to say, “I want to see your face, because if I was sitting next to you, I would be right there with you talking to you whether your hair looks good or not.” She explained her team members were slow at first to adopt the use of web cameras, but after she explained the importance and the positives of using web cameras, her team members were more open to using the technology. She concluded by saying that “you have to be comfortable in front of the camera, and I think that has been really hard for some people, and to be open and candid about it.” Participant
12 shared a similar experience with the adoption of web cameras being difficult. She said, “I’m used to talking in front of others, but when you’ve got a camera in front of you, there’s a different type of pressure, it’s a different feeling.” She also mentioned anxiety about navigating the technology and platforms when transitioning to the virtual setting. She added that even though she had anxiety about using cameras she was more comfortable in virtual meetings when others had their cameras on as well, which allowed her to see facial expressions and some body language. She also shared that a hurdle she faced with some team members is they were not provided web cameras and others did not have a dedicated space in their home suitable for being on web camera when first transitioning to virtual. She added that eventually the organization improved access to technologies necessary for virtual work, such as web cameras, and developed an internal request process to facilitate these requests and acquired the resources to provide web cameras and other technology to staff that transitioned to virtual work and for new employees hired into virtual settings. Participant 5 said that she interviewed many candidates in the virtual setting, and only one candidate did not use a camera during the interview. She said in the beginning of the pandemic it was a struggle because she does not like being on camera, but she adapted overtime and is now extremely comfortable. She added “I mean now it’s no big deal, you get used to it.”

Participant 16 expressed that based on her experience, leaders in the organization were encouraged to be on web cameras for meetings and other virtual collaboration. She said she also found that employees from the information technology teams were quicker to adopt virtual technologies, including the use of web cameras. She shared that another issue she encountered at times was employee equipment was not working or there were
other technology-based issues like network and internet service provider (ISP) connectivity. In these instances, it was difficult for employees to connect virtually because there was not always an immediate method to address the issue and often it relied on a ticket to information technology for support or a third party, such as the employee’s ISP. Participant 7 said that he experienced that some employees were much slower at adopting web cameras than others, and he said some still do not use web cameras.

Based on the participant experiences, the role of technology in virtual leadership and work is critical, offering opportunities for success but also presenting certain barriers. Web cameras and related technologies like web conferencing, chat, and file sharing applications played a central role in enabling collaboration in the virtual setting. Although participants generally encouraged the use of web cameras during virtual meetings and collaboration, they typically did not mandate them, based on the understanding that some employees might be uncomfortable or lack the necessary equipment. The adoption of web cameras was found to vary among teams, with some setting standards for camera use based on the nature of meetings and the emotional context of the discussions. Many participants shared experiences of helping team members become more comfortable with web cameras over time, emphasizing the benefits of these tools in building connections and improving communication in the virtual environment. However, challenges were encountered, including issues related to access to equipment, technical difficulties, and technological skill level of the employee. Overall, technology, especially web cameras, played a vital role in the success of virtual leaders and their teams, but its adoption required time, understanding, and adaptability.
Theme 7

Performance and productivity of virtual employees. Leaders were concerned about how they would monitor the performance of employees and how they could ensure employees are being productive when transitioning to and working in virtual settings. However, these concerns subsided over time and in general, productivity increased after leaders and employees transitioned to virtual work. Eight participants made statements related to accountability of their team members in the virtual setting. Concerning virtual work, Participant 16 said she found it necessary to have checks and balances in the virtual setting in order to maintain accountability of her team members, because she believed without those checks and balances, they would not be able to succeed after transitioning to virtual work. Participant 1 said that if someone outside of her team is unable to attend a meeting she follows-up or has one of her team members follow up to make sure the individual who could not attend is kept informed on any developments and important takeaways from the meeting. She said that “if there is a concern, I’ll send someone from my team to the meeting if I cannot attend to make sure we’re getting the information needed for my department.” She added that after transitioning to virtual work, “my team still needed to be held accountable for doing their jobs and getting it done correctly, and I had to make sure that everyone was doing the same level of work as before and holding them accountable.” Based on her experiences, she believes that to be successful in a virtual setting, employees “have to have the same work ethic that they did in the office.” Participant 6 said that she was very straightforward with her employees about setting expectations with her team members and holding them accountable. She explained that:

It's a dead giveaway if there is something going on because people will call me.

They always do right away when something doesn’t get done. We’re going to
know about it. So, we have to trust our individuals enough to say here’s your job and these are the things that you have to do. These are your tasks, complete them as efficiently and as timely as you can, just like if I was sitting down the hall from you. That same expectation is there now, as when we were in person.

Similarly, Participant 9 shared that she believes that leaders must trust their employees in the virtual environment and some of the burden of accountability must rest on with the employee, and not only the leader. She shared the following statements about accountability and concerns other leaders voiced when the organization first transitioned employees to the virtual setting during the pandemic:

I don’t want to dictate what people do, and I feel they need to be accountable themselves. However, I think you still have to understand how to hold people accountable and make sure they are still productive. When we sent everybody home to work remote the number one question that came from senior leaders was how do we know people are really working at home, and my response was, how did you know they were working productivity when they were on site? I think having conversations to understand what an employee is working on without them thinking that you don't think they're doing anything is important. You have to be able to have conversations with people that support them and to understand the work they're doing; understand what obstacles and barriers they're facing. As a leader, you have to help them to be successful and remove barriers. It’s about accountability, if you weren’t really holding people accountable before the pandemic, it just made it worse after moving to virtual.
Participant 10 found that employees who could not effectively manage their timecards prior to transitioning to virtual work continued to struggle after the transition. He added that those employees eventually “fizzled out” and left the organization.

Participant 2 shared that she experienced issues as well with employee accountability after transitioning to virtual work. She said that she had a good relationship with one employee on her team prior to transitioning to virtual work. However, after the transition she said, “I could just never get in touch with her, she was not present, and it became very difficult to try to figure out what was going on and to manage her because work was not getting done.” She added:

I feel like if you’re a high performer, you’re going to be a high performer whether you’re working from home or in the office, and I think the move to virtual did highlight some people who weren’t necessarily high performers to begin with. They got into this virtual setting and it just kind of fell apart, and I do feel that’s what happened with the one employee of mine.

Participant 14 said that he experienced an issue with a member of his team member not returning calls, which was a shock to him since this was not typical behavior. He said that situation caused him to reflect on how he could better support his team members and improve their accountability. He added that he put in place processes to speak with his team members regularly and conduct check-ins to provide extra support and improve the accountability of his entire team by addressing the needs of his team members.

Another concern about accountability and passing off work was described by participant 8 who said, “we all struggled with the fact that somebody could just shoot an email and say forwarding this to you because they don’t want to deal with it, rather than
taking ownership.” She added “we have seen a lot of that where someone loops someone else in and how it’s their problem”.

Participant 1 monitored the performance and productivity of her team by running purchase order reports since that was a primary metric used to measure the daily work output of her team members, and the reports allowed her to establish benchmarks to use among her team. She said that “if we see a drop in productivity, we know something is going on, but we have to communicate to our employees to sometimes know what’s really happening.” Similarly, participant 11 shared that her team runs daily reports that include data about patient transfer and acceptance rates, which she compares to benchmark data to monitor the performance and productivity of her staff. She explained that the data allows her to know that her staff are doing their jobs, because if they were not the report data would reflect it. She shared that another method her team adopted to measure performance and productivity was the creation of a staff metrics dashboard that “can be shared weekly with staff, so we know how everyone is doing, and we can say who is the superstar of the week and identify them using data.” Reporting was also used by Participant 13 to measure the performance and productivity of her team. Her team utilized a patient and employee safety report as a performance and productivity metric. Participant 5 said that her team relied on recruitment data and benchmarks to measure performance and productivity, and they developed a dashboard to track the organization’s recruitment and hiring data to create more transparency. She said she also used that data to facilitate discussions to socialize the data with hiring managers and so they better understand it in terms of performance and productivity of her team as well as overall recruiting within the organization.
Participant 1 said that she also relied on the Microsoft Teams application to make sure her staff had logged in for the day and were available, instead of using the time clock system. Participant 10 had a slightly different approach to her monitoring the performance and productivity of her team. She expressed that “if you get all your work done it shouldn’t matter how much time it takes, but sometimes you have to watch it, because you have to make sure people aren’t abusing that.” She provided an example of also using Microsoft Teams to monitor her team members:

You may see that someone has been away on Teams for three hours, and you know there’s nothing on their schedule, and you’re trying to get a hold of them. That can be somewhat problematic. However, I use reporting and our daily huddles to keep a pulse on productivity. Outside of those reports and Teams I don’t use too much other technology to keep up with my staff.

Multiple participants expressed an increase in the productivity of their teams after the transition to virtual work. Participant 11 found that in addition to increased productivity, her team members also displayed improved engagement scores on the organization’s annual employee engagement survey and her department had higher survey participation rates in comparison to pre-pandemic results. She also shared that her team members were more productive working at home because some of them were able to continue working after contracting Covid-19 and only experiencing minor symptoms. She explained that if these employees had still worked in the office, they would have not been allowed to return to work while testing positive for Covid-19. She concluded by saying, “I think we’ve really gained a lot of efficiency with no drop time.” Participant 15 said “I didn’t notice any dip in productivity, and actually our productivity went up based
on our statistics, because we track our projects.” He added that another way that he personally improved his productivity was to schedule what he referred to as “focus blocks” on his calendar which are time periods he sets aside for specific project work and related tasks. He said, “now that I’m working from home, I can turn off my notifications and mute the phone, and no one is going to walk in on me so I can deep dive into projects.” He concluded by saying, “we do have the data to show that productivity increased after we moved to virtual.” Participant 17 stated “everybody feels like they’re more productive and I think they’re happier.” He added that he uses the same processes to measure performance that he used prior to his team transitioning to the virtual setting. He said primarily his team used Microsoft Excel and an applicant tracking application to track their progress before the pandemic and after moving to virtual. He found it was not necessary to change their existing processes or adopt new technology after the transition.

Participant 4 described the transition to virtual work as a positive experience for herself and her team members, and that overall, her team is more productive when working at home. She said:

It's been a nice experience, and I will have to say that two and a half years later, everyone still likes it, myself included. I love it. I feel like I'm more productive and just have a bit of a healthier lifestyle than I did before. I think it’s about just finding a way to manage your team and your projects, and still be aware of what’s going on without micromanaging. We measure our productivity and performance based off metrics. We have a lot of metrics and if we’re not meeting a goal or performance is not there, we set some goals and create actions plans to get back on track and improve our productivity. I watch how many projects we have going
on and I know about how much each person can do in a certain amount of time, so I watch the project tracker closely as well. I’ll tell you that I’m more productive because I can sit here and be uninterrupted, other than meetings scheduled on my calendar. They get more work out of me now than they did in the office. My office was like a revolving door, and everybody that walked down the hall wanted to talk and know how my weekend was. It can really undercut your productivity if you’re interrupted too much. My team would tell you the same, that they are more productive at home than they ever were in the office, just because they feel like they’re more in control of their environment and schedules now. It’s a better environment to be more productive.

Participant 7 shared a similar experience and claimed his team had become more productive as well after transitioning to virtual work. He said, “my team has gotten more productive, and they are really thriving, and I’m not exaggerating, you know, they are getting more work done, more efficiently than they ever did in the office, and it’s better quality.” He said that prior to transitioning to virtual his team had implemented an agile Scrum management framework to better manage their projects and workflow, and they carried the process over to the virtual work environment with no concerns. They used an online Scrum application to monitor their projects and he also used the data from the application to monitor the performance and productivity of his team.

Participant 2 said she is careful about overly monitoring her employees and does not want them to think she does not trust them or has concerns about their productivity. She provided the additional insight concerning her stance on monitoring employees:
I feel like it’s a double-edged sword because I don’t want people to think it’s something that I’m looking at regularly. I would hate to think that we were constantly monitoring people and having to track every hour spent sitting at their desk. I feel like we’ve done a really good job with our culture of not expecting that. Also, right now, we’re struggling to retain good employees, and if a good employee knows they can go somewhere else where someone is not monitoring them all day and all night then that’s going to be the better option for them. So, I try to put a positive spin on it, and make it more about validation and how I can validate and support my virtual employees by focusing on their achievements instead. I focus on the achievements related to projects and timelines instead of worrying about what they’re doing every moment of every day.

Participant 8 shared that she does not have a good way to measure performance and productivity among her team through the statement “outside of the work getting done, we have no way to monitor performance and productivity.” Participant 12 said that she relies on communication more than any formal way to measure performance and productivity. She said that her team “keeps each other up to date with what is going on in meetings, huddles, and in Microsoft Teams.” She added that “we share documents in OneDrive for when we need to check on a particular project.” She said often she relies on informally asking her team members for a status update but has not found the need for any formal way to monitor performance and productivity. Participant 14 said that his team also used mostly informal methods to collaborate and monitor performance and productivity. He said that he is intentional about sharing information and documents and ensuring that his team has an agenda for meetings. He said they also take notes that are
stored in a shared drive and disseminated to his team members to keep everyone up to
date on projects and tasks. Like other teams, he said his team also relies on Microsoft
Excel to track projects, which did not change after transitioning to virtual work.
Participant 16 shared that her team measures performance and productivity using data
related to working and closing support tickets which is a core component of her team’s
daily tasks. She added that her team also using the same system to also manage projects
in addition to support tickets, and that these processes were in place prior to moving to
virtual work and continued after the transition. Participant 3 shared that her team
members complete a daily activity log, which she reviews with them at specific intervals
throughout the year, including a more in-depth quarterly review of the logs. She provided
the following statement about the logs:

I use the daily activity logs to monitor their performance and productivity and
look for areas of improvement. I look at each individual team member, and then I
also combine all those activity logs to get an average across the system. For
example, when we're doing case funding, we may have a list of patients for an
entire month that had a diagnosis of cancer. So, we have to review each one of
those patients records and when I looked at that, I had anywhere from someone
reviewing 2 charts per hour to up to 24 charts per hour. So, there was a huge
variance there and we did some training on how to do case funding, and now we
are pretty much at an average across the system anywhere from 12 to 14 cases per
hour. So, for me, it's just using those activity logs.

A concern that was voiced by participants was related to how leaders can monitor
performance and productivity when employees transitioned to virtual work from home
arrangements. It was expressed that these concerns were higher early in the pandemic, when employees were first transitioned or right before transitioning, but generally subsided overtime once employees were working from home. Participant 16 said “any concerns about working from home went away.” She added that “we as management are responsible for making sure that somebody’s performing their job, and there was concern because they didn’t have a ton of tools to be able to do that, however, you can get a good sense about what someone is doing, so those concerns went away pretty quickly.”

Participant 6 shared that when first beginning to transition to virtual work, her direct supervisor did not believe that employees could do their work effectively from home. She added that her supervisor “put a lot of hurdles in place, which she thought was helping to make sure people were working, like having them fill out a weekly activity report and turn it in to sort of prove they were working.” She said that after a few weeks of this, she confronted her supervisor and explained the reports were extra, unnecessary work and that if they trust their employees these reports were not needed. She said, “we trust these people to do their work, and if they don’t do it, I’m going to know.” Therefore, her supervisor agreed, and they put an end to the extra reporting and allowed the team members to maintain the same workflow they had when in the office, with no extra steps added. She said her team members did not push back on the extra work, but she felt it was more needed for her supervisor to feel comfortable with the transition to virtual work and not being able to directly see people at their desks working.

In summary, transitioning to virtual work initially raised concerns among leaders about monitoring employee performance and productivity. However, these concerns diminished over time, as participants reported an overall increase in productivity after the
transition. Several participants emphasized the importance of accountability and maintaining the same work ethic as in the office, with some implementing checks and balances to ensure success in the virtual environment. They highlighted the need for open communication and trust, emphasizing that productivity can be measured through existing metrics, data, and reporting processes. Many participants noted that their teams became more efficient when working from home, with some attributing this to reduced interruptions and increased control over their work environment. These findings suggest that while there were concerns, effective communication, trust, and reliance on existing processes contributed to maintaining and even enhancing productivity in the virtual work setting.

**Summary**

In summary, this chapter provided an overview of the findings uncovered during the data analysis phase of this phenomenological qualitative study that aimed to explore the lived experiences of leaders who transitioned to managing virtual teams during the COVID-19 pandemic. The data analysis addressed the three central research questions through an exploration and description and the essence of the experience of each participant in relation to the central phenomenon. Through this data analysis, seven themes emerged that describe the essence of experience in relation to the central phenomenon of transitioning to virtual leadership. A succinct review of the seven themes is provided.

**Theme 1: Benefits of Virtual Leadership and Work**

Leaders overwhelmingly reported positive experiences associated with virtual work. They highlighted benefits such as enhanced flexibility, cost savings, reduced commuting, fewer distractions, and a better work-life balance. These advantages
contributed to improved well-being and overall job satisfaction for both leaders and employees.

Theme 2: Challenges of Virtual Leadership and Work

Despite the benefits, transitioning to and working in virtual settings presented unique challenges as well. Leaders expressed concerns about issues like career growth, visibility within the organization, camera fatigue, excessive meetings, communication hurdles, technology challenges, and feelings of disconnection from others.

Theme 3: Leading Virtually with Intentionality

Leaders discovered the need to be more intentional in virtual settings compared to traditional face-to-face environments. This intentionality involved purposeful actions, scheduling meaningful meetings, acknowledging team members, and celebrating achievements deliberately. Leaders highlighted the importance of building relationships, enhancing communication, and fostering team collaboration through increased intentionality.

Theme 4: Adapting Leadership Styles to the Virtual Setting

Participants adapted their existing leadership styles to the virtual environment while making minor adjustments rather than complete transformations. They emphasized skills like accountability, effective communication, adaptability, delegation, empowerment, building trust, and flexibility. These skills, combined with adjustments in their leadership styles, enabled leaders to address the unique demands of effectively leading in a virtual environment.

Theme 5: Communication in the Virtual Setting

Effective communication was deemed crucial for the virtual work environment and was supported by behaviors such as facilitating connections among employees,
enhancing collaboration, and establishing trust and psychological safety. Leaders also described communication in the virtual setting in relation to verbal cues, online etiquette, body language, socialization, electronic communication, and feedback. The significance of appropriate communication tools and strategies for conflict resolution in the virtual setting was also discussed.

Theme 6: Role of Technology in Virtual Leadership and Work

Technology played a pivotal role in virtual leadership and work, offering opportunities for success but also presenting barriers. Web cameras, web conferencing, chat, and file sharing applications emerged as essential tools for collaboration in the virtual environment. Leaders encouraged but did not mandate the use of web cameras during virtual meetings, recognizing the need for employee comfort and equipment availability. Adoption and comfort with these technologies varied among teams, requiring adaptability and time.

Theme 7: Performance and Productivity of Virtual Employees

Concerns initially arose about monitoring employee performance and productivity during the transition to virtual work. However, these concerns gradually diminished as leaders and employees adapted to the virtual environment. In fact, participants reported an overall increase in productivity after the transition to virtual. Accountability, trust, and maintaining the same work ethic as in the office were cited as key factors contributing to this enhanced productivity.

Reflexive Inquiry

Sunstein and Chiseri-Strater (2012) suggest that researchers ask themselves three questions when conducting research: what did they find surprising (tracking assumptions), what did they find intriguing (tracking positions), and what did they find
disturbing (tracking tensions)? In this study the researcher used these questions to promote reflexive inquiry about the analyses and findings. Based on the findings of this study, the gradual reduction of concerns regarding employee performance and the reported increase in productivity after the transition to virtual work are surprising, considering the initial concerns about monitoring virtual employees. This finding highlights the potential for virtual work to enhance productivity, challenging the assumptions of reduced productivity in virtual settings and concerns about leaders effectively monitoring the performance of their team members (Davenport & Pearlson, 1998; de Guinea et al., 2005; Feitosa & Salas, 2021; Ferrazzi, 2014). Another surprising finding was the overwhelmingly positive experiences associated with virtual work. Existing literature often highlights the challenges and difficulties of virtual work, however, participants in this study emphasized enhanced flexibility, cost savings, and improved work-life balance. These findings support the notion that virtual work provides flexibility and reduced commuting, contributing to improved employee well-being (Beno, 2021; Efimov et al., 2020; Hoch, 2019).

The findings related to challenges faced when transitioning to virtual work align with existing literature including issues with communication, conflict, personal relationships, and trust (Ferrazzi, 2014; Hoch, 2019; Malhorta et al., 2007; Phelps, 2014). However, the breadth and depth of challenges uncovered in this study were intriguing. The array of issues, from camera fatigue to technological challenges, highlights the multifaceted nature of virtual work. These challenges underscore the need for more comprehensive strategies to support virtual leaders, particularly as virtual work continues to be a prevalent mode of work.
Intentionality has been recognized as important in leadership by fostering positive work environments, empowering team members, and allowing leaders to navigate change and challenges more successfully (Feltz, 2009; Servais & Sanders, 2012). The emphasis on intentionality and the deliberate actions described by leaders in this study was intriguing, however, this finding was also disturbing when considering the lack of existing literature on intentionality with respect to leaders in the virtual environment. The absence of research on intentionality in virtual leadership reveals a gap in understanding and best practices, and has the potential to affect leaders, teams, and organizations, leading to missed opportunities. Recognizing this gap would help scholars, leaders, and organizations to prioritize further research and the development of practical strategies and frameworks related to intentionality in virtual leadership.

**Conclusion**

In summary, this chapter provided an overview of the complex and versatile landscape of virtual leadership and work including a comprehensive view of the experiences, adaptations, and challenges faced by virtual leaders during the COVID-19 pandemic. This thematic analysis highlighted the significance of intentionality, effective communication, adaptability, and technology adoption in relation to the success of virtual leaders and their teams. Furthermore, the findings emphasized that transitioning to and working in a virtual environment can have both positive and challenging aspects, with effective leadership practices playing a pivotal role in navigating this evolving landscape.
CHAPTER V
DISCUSSION

The purpose of this qualitative study was to describe the lived experiences of leaders who transitioned to managing a virtual team during the COVID-19 global pandemic. This study also sought to explore how leaders adapted their existing leadership practices and how they leveraged people and technology when transitioning to managing a virtual team. The following three research questions were posited to explore the phenomenon and guide the data collection and analysis:

1. How do leaders describe their experiences when transitioning to managing a virtual team during the COVID-19 global pandemic?

2. In what ways did leaders adapt their leadership and management practices when transitioning to managing a virtual team?

3. In what ways did leaders leverage people and technology differently when transitioning to managing a virtual team?

The findings from this study revealed seven themes that describe how leaders experienced the transition to managing a virtual team and how they adapted their leadership and management practices, leveraged their team members, and utilized technology in the virtual setting. In theme 1 leaders overwhelmingly expressed positivity regarding virtual work, emphasizing benefits like increased flexibility, cost savings, and improved well-being for both leaders and their employees. However, theme 2 suggests that leaders also faced challenges in the virtual setting, including concerns about career
growth, communication, and feelings of disconnection. Theme 3 explained that leaders recognized the need for intentionality in virtual leadership, including scheduling meaningful meetings and fostering collaboration. Theme 4 indicates that while minor adjustments were made, leaders generally adapted their existing leadership styles to the virtual setting. In theme 5 effective communication was identified as crucial in fostering connections, collaboration, trust, and psychological safety among virtual employees, encompassing various aspects like verbal cues, online etiquette, and conflict resolution strategies. Theme 6 explained that technology, particularly web cameras and collaboration tools, played a central role in supporting virtual leadership, offering both opportunities and challenges. Leaders encouraged but did not mandate the use of web cameras, recognizing the need for adaptability and time in technology adoption. Finally, theme 7 showed that leaders initially expressed concerns about monitoring employee performance and productivity in the virtual environment, but over time, these concerns diminished, and an overall increase in productivity was observed. This improvement was attributed to factors like accountability, trust, and maintaining strong work ethic. These findings provide a comprehensive understanding of the dynamics of virtual leadership and work, specifically when transitioning to virtual work, with a focus on benefits, challenges, and strategic adaptations. The remainder of this chapter provides a discussion of interpretations, assumptions, limitations, and implications of the findings. Additionally, this chapter includes recommendations for future research and concluding statements.
Interpretation of the Findings

This section provides an interpretation of the findings which aims to connect the participant experiences and findings to the broader context of virtual leadership and work found within the existing body of literature. First, this section will explore the seven themes that emerged during this study in relation to existing research and literature. Second, an interpretation of how the findings of this study fit into the theoretical framework of the input-process-outcome (IPO) model is provided.

Themes

Benefits of Virtual Leadership and Work

This theme supports the existing literature on the benefits of virtual work arrangements. Leaders overwhelmingly reported enhanced flexibility which is supported by the works of Ale Ebrahim et al. (2009) and Hoch (2019). The reduction in commuting and associated cost savings mirror the findings of O’Neill & Wymer (2011) and Bloom et al. (2015). These reductions not only represent financial benefits for both employees and organizations but may also align with broader societal goals of environmental sustainability, reducing greenhouse gas emissions, and lessening the strain on natural resources (Global Workforce Analytics, 2017).

The findings of this study also support existing literature on job satisfaction. Based on the findings of this study, leaders attested to improved well-being and job satisfaction, paralleling reports from the literature that virtual work can enhance job satisfaction and that being able to work virtually is viewed as a benefit similar to receiving a pay increase (Snyder, 2012; Allcot, 2021). The potential cost savings for employees further aligns with these views, demonstrating a relationship between enhanced employee well-being and cost reductions (Beno, 2021).
Furthermore, this theme attests to the attractiveness of virtual work for prospective employees, echoing the notion that organizations can widen their talent pool beyond geographic limitations (Morrison-Smith & Ruiz, 2020; Neeley, 2015). The findings underscore that organizations fostering virtual work arrangements can potentially attract top talent, especially among younger, more digitally native job candidates, thus bolstering the quality and diversity of the workforce (Dinh et al., 2014; Ferrazzi, 2014). Finally, this theme offers a link between the experiences of leaders and the broader societal and organizational advantages of virtual work. Improved well-being and job satisfaction translates to a higher retention of specialized skills and top talent (de Guinea, Webster, & Staples, 2012; Dulebohn & Hoch, 2017). Based on these interpretations, this theme supports the congruence between the participants' experiences and existing literature concerning the benefits of virtual work, but also supports improved employee well-being, cost savings, and the ability to attract, retain, and motivate specialized, high-performing talent.

**Challenges of Virtual Leadership and Work**

The challenges described in this study resonate with the existing literature and affirm the prevalence of obstacles inherent to virtual work. The findings of this study and existing literature converge on the understanding that challenges emerge on multiple fronts when navigating virtual environments. The findings support difficulty with establishing and maintaining personal relationships among virtual teams which Rod (2012) asserts is a fundamental challenge that virtual employees face. As Phelps (2014) explains, virtual teams often grapple with the absence of physical and social interaction, which leads to a loss of face-to-face synergies, and this absence has a direct link to trust issues. Malhotra et al. (2007) and other scholars emphasize that trust, communication,
conflict, and power can pose risks to virtual teams which also supports the descriptions of the challenges faced by the participants in this study.

A salient challenge described by the participants is a perceived disconnect caused by the absence of physical presence which is echoed throughout the literature (Carte, Chidambaram, & Becker, 2006; Gilson et al., 2015; Jarvenpaa, & Tanriverdi, 2003). Additionally, the literature aligns with the findings concerning difficulties in coordinating activities and communicating effectively among virtual teams (de Guinea et al., 2005). The findings also connect with the historical context of virtual work that points out challenges related to productivity and team member engagement (Davenport & Pearlson, 1998; Govindarajan & Gupta, 2001). The notion that employees may be perceived differently in virtual environments, especially in relation to trust and visibility is consistent with the findings of Owl Labs (2022).

The findings are also consistent with challenges associated with adapting to virtual work during the COVID-19 pandemic, representing issues such as changing measurement metrics, difficulty with recognizing and rewarding employees virtually, and disruptions to established personal and professional rituals (Levenson & McLaughlin, 2020). The need to develop new rituals in the virtual context was reinforced by the experiences described by our participants in which leaders and employees had to modify their existing processes and find new ways to be effective in the virtual environment. Challenges representing the need to adapt means of communication and coping with shifting workplace norms are consistent with the findings of Levenson & McLaughlin (2020). The findings also support challenges associated with the need to learn new skills
and adopt communication technologies during the transition to virtual work (Agarwal et al., 2020).

**Leading Virtually with Intentionality**

This theme emphasizes the need for leaders to be intentional in their approach to effectively lead teams in virtual settings, which can be significantly different from traditional face-to-face environments. Malhotra et al. (2007) identified six practices for effective virtual leaders, including building trust among team members through communication technologies. This resonates with the concept of intentionality, where leaders in virtual settings must be intentional about taking steps to build trust, through actions such as purposeful communication and team-building activities. Kilcullen et al. (2021) emphasized the importance of establishing norms and reinforcing them through policies and procedures which aligns with the need for leaders to intentionally create policies and procedures for their teams in order to set expectations and guidelines. Mehtab et al. (2017) suggested that leaders should actively promote trust and cohesion among their teams through common goals and roles. This supports the need for intentionality in fostering relationships, acknowledging team members, and celebrating achievements deliberately as described by the participants based on their experiences. Shachaf and Hara (2005) mentioned the significance of regular communication and role clarity for virtual leaders. This theme suggests that leaders should make deliberate effort to maintain communication and clarify roles which are essential components for effective virtual leadership. Feitosa and Salas (2021) highlighted the need for leaders to foster an inclusive environment within virtual teams which supports the notion that leaders should be intentional in creating a sense of belonging and inclusivity among their team members.

In summary, existing literature emphasizes the necessity for leaders to be proactive,
intentional, and structured in their approach, which mirrors the need for purposeful actions, clear communication, and relationship building as suggested by this theme. Effective virtual leadership is not simply the result of happenstance but requires a carefully crafted and intentional approach that addresses the unique challenges and opportunities presented by virtual work environments.

**Adapting Leadership Styles to the Virtual Setting**

This theme demonstrates that leadership in virtual environments requires a nuanced and flexible approach, rather than a complete transformation of leadership styles. This approach is supported by the existing literature on leadership styles, leadership skills, and trust within virtual teams. The literature suggests that different leadership styles have unique implications for virtual teams. For example, transformational leadership, which focuses on motivation, innovation, and inspiring followers, is particularly beneficial for virtual teams, especially in relation to the technology-based communication required of virtual teams. Encouraging trust, promoting collaboration, and celebrating team achievements aligns to the concept of adapting leadership styles to the virtual setting to address specific challenges (Purvanova & Bono, 2009; Ruggieri, 2009). This theme also supports the view that virtual leaders should place the interests of the team first and support team members by encouraging respect, creativity, and problem-solving (Ruggieri, 2009). The need for leaders to demonstrate flexibility is consistent with the notion that leaders make minor adjustments to their leadership styles when transitioning to virtual work rather than complete transformations.

The literature also addresses the concept of shared leadership in virtual teams, where leadership roles are distributed among multiple team members. This approach encourages collaboration, trust, and knowledge sharing, which is vital for the
effectiveness of virtual teams (Hoch and Dulebohn, 2013). Additionally, it promotes a positive team experience and enhances team performance, supporting the finding that leaders adapt their leadership styles to fit the unique demands of virtual work environments and the needs of their team members.

Effective virtual leaders need specific skills and traits to navigate the challenges posed by virtual work arrangements. The ability to communicate effectively is a primary skill represented in the literature, emphasizing the importance of clear and concise communication, understanding, and transparency. Virtual leaders should also possess skills in managing conflicts, addressing diversity, and fostering emotional intelligence to promote knowledge sharing and trust among their teams (Roy, 2012). This further supports the idea that leaders adapt their leadership styles and hone specific skills to be successful in virtual environments. Trust is another concept that is important to the success and effectiveness of virtual leaders and teams. Trust is considered critical for the cohesion and success of virtual teams (Cascio and Shurygailo, 2003). Effective virtual leaders can promote trust through clear expectations, regular communication, and collaboration.

In summary, this theme is well-supported by the existing literature on leadership styles, skills, and trust in virtual teams. Existing literature emphasizes the importance of leaders to adjust their existing leadership styles, hone specific skills, and foster trust to effectively address the unique demands of virtual team leadership. Rather than needing to completely change their leadership styles, leaders should instead focus on adaptation, flexibility, and intentionality.
Communication in the Virtual Setting and the Role of Technology in Virtual Leadership and Work

These two themes focused on communication and technology are closely interwoven within the context of virtual teams and are supported by a substantial body of literature. These themes collectively highlight the essential role of effective communication and technology in virtual work environments and underscore the challenges and opportunities they bring. Existing literature emphasizes that effective communication along with the appropriate use of technology is a cornerstone of success in virtual work environments.

Literature suggests that virtual teams heavily rely on electronic media technologies for communication, including chat, email, videoconferencing, and voicemail. Interestingly, despite the increasing reliance on technology due to the COVID-19 pandemic, only 36% of organizations had upgraded video conferencing technologies two years after the global pandemic was declared in March 2020 (Owl Labs, 2022). Existing literature and the findings from this study demonstrate the importance of ensuring virtual team members have access to appropriate and rich communication technologies to be effective in the virtual environment. Media richness theory, which emphasizes matching the richness of a communication medium with the equivocality of the task, suggests that richer communication mediums, such as videoconferencing, can reduce misinterpretations and misunderstandings compared to low media richness mediums (Hoch, 2019). The findings from the current study demonstrate that leaders encountered many situations in which their team members misinterpreted or misunderstood communication in the virtual setting, especially electronic communication including chat and email.
Technology is viewed as an input that supports team communication and performance in virtual teams. Studies have found that technology can have a negative impact on virtual team performance, including delays in information exchange and disjointed communications (Schweitzer & Duxbury, 2010; van der Kleij et al., 2009). However, Hyo-Joo et al. (2011) found no impact of technology on virtual team performance. Ferrell and Kline (2018) explained that it is important to recognize that virtual teams face communication challenges unique to their virtual setting, and technology plays a crucial role in facilitating effective communication and promoting optimal performance which supports the findings uncovered by this study.

Existing literature confirms that technology plays a pivotal role in virtual leadership and work, offering opportunities for success but also presenting barriers. For example, a study by Ferrell and Kline (2018) found that technology-facilitated communication is critical to the work performed by virtual teams, but they also noted that virtual communication can be profoundly different from communication found in face-to-face, office settings. Due to this difference, virtual teams must develop effective communication strategies that rely on technology to promote optimal performance which also supports the findings of this study.

Hoch (2019) found that being able to communicate using video-based technologies allows virtual team members to establish common ground more easily by being able to observe subtle visual cues that allow for team members to better understand one another. This supports the findings from the current study that leaders struggle with not being able to rely on facial and non-verbal cues like they did in face-to-face settings, but the use of web cameras helped to mitigate these concerns. Additionally, leaders
encouraged web camera use among their teams to improve communication but did not mandate the use of web cameras during virtual meetings, recognizing the need for employee comfort and equipment availability.

Castillo (2021) found that 59% of participants said employee engagement happens outside of formal training events and meetings through socializing via collaboration and communication tools like Microsoft Teams, Skype, and Zoom. Additionally, 64% of participants stated they wanted their leader to plan motivational and “fun” events where they could interact with other employees and leadership. This supports the findings from this study that virtual leaders believe it is important to schedule social events and create opportunities to connect with their virtual team members, including in-person events when able. Additionally, the participants in this study believed it was important for them to connect with their team members on a personal level and maintain a pulse on them through check-ins and intentional communication.

Overall, the findings related to the themes concerning communication and technology are well-supported by existing literature on virtual teams. These two themes support the significant role that technology plays in virtual leadership and work, especially in relation to effective communication of virtual teams. Communication and technology are also paramount for virtual leaders to leverage when building trust and accountability among virtual teams.

**Performance and Productivity of Virtual Employees**

The findings that support this study can be interpreted in the context of existing literature on virtual work and team dynamics. Existing literature also supports the findings of this study that concerns initially arose about monitoring employee
performance and productivity during the transition to virtual work, but that these concerns gradually diminished as leaders and employees adapted to the virtual environment. For example, Feitosa and Salas (2021) found that a concern associated with virtual teams is how leaders effectively monitor the performance of team members. They also noted that effective virtual teams also excel at teamwork.

In virtual settings, it can be easy to ignore requests and provide delayed responses. However, virtual leaders can leverage communication strategies and technology to assess teamwork behaviors, provide continuous feedback, ensure team members concerns are heard, and support strong collaboration. Ferrazzi (2014) reported that virtual teams often face performance and process losses compared to co-located teams, however the current study found that leaders reported increases in performance and productivity of their teams after transitioning to virtual work. This increase in performance and productivity echoes the notion that well-managed virtual teams can outperform co-located teams (Siebdrat et al., 2009). This study also demonstrated a gradual diminishment in concerns about performance and productivity as teams adapted to the virtual environment. This evolution echoes the dynamic nature of virtual work and the adaptability of both leaders and employees (Levenson & McLaughlin, 2020).

The findings of this study also highlighted accountability, trust, and work ethic as key drivers of enhanced productivity in the virtual work environment. These findings align with the broader literature emphasizing the significance of trust in virtual teams (Sarker et al., 2003) and the critical role of leadership in fostering trust and cohesion (Purvanova & Bono, 2009; Hoch and Dulebohn, 2013). The findings of this study also resonate with the idea that trust and cohesion mediate between leadership styles and team
performance (Sedrine et al., 2021) and that trust is vital for the cohesion and success of virtual teams (Ferrell & Kline, 2018). Overall, these findings emphasize that effective leadership and the cultivation of a culture of trust are essential in ensuring sustained productivity in virtual teams.

In summary, this theme contributes to the literature on virtual teams by adding depth to our understanding of the dynamics of remote work. These findings in relation to the existing literature underscores the evolution, challenges, and opportunities inherent in virtual work, emphasizing the critical role of leadership and trust in promoting the performance and productivity of virtual teams.

**Theoretical Framework**

The themes and findings of this study can be applied to and supported by the Input-Process-Output (IPO) theoretical framework, which provides a structured lens for understanding the dynamics of virtual teams. The IPO framework offers a structured approach to understanding the complex dynamics of virtual teams, revealing how inputs, processes, and outcomes interact to shape their cohesion, performance, and productivity.

**Theme 1: Benefits of Virtual Leadership and Work**

Benefits of virtual work including flexible work arrangements, cost savings, and better work-life balance could be viewed as structural supports. Employee well-being and job satisfaction represent outcomes influenced by these inputs.

**Theme 2: Challenges of Virtual Leadership and Work**

Challenges associated with information technology can be viewed as an input factor in the framework. Virtual team composition represents challenges associated with the diversity of the team as well as individual team member personalities, such as introversion or the need to socialize. The challenge of organizational visibility is an
aspect of team virtuality. Challenges that face virtual leaders and team are influenced by mediating processes such as problem solving (cognitive process) and shared leadership (behavioral process).

**Theme 3: Leading Virtually with Intentionality**

Intentionality as a component of leadership can be seen as an input factor. Motivational processes like engagement and affective processes like team cohesion are supported by this theme. These processes play a key role in transforming the intentionality of leaders into positive team outcomes, such as increased collaboration and team performance.

**Theme 4: Adapting Leadership Styles to the Virtual Setting**

Leaders’ adaptability represents an input factor within the framework. Accountability and trust relate to cognitive and behavioral processes that mediate between inputs and team outcomes. The shared leadership aspect aligns with behavioral processes like decision-making within the team.

**Theme 5: Communication in the Virtual Setting**

Effective communication in virtual settings is a critical input factor, impacting structural supports (communication tools) and team composition (team member interactions). Additionally, aspects of communication discussed within this theme, like conflict resolution strategies, are part of the cognitive and behavioral processes through which communication influences the team’s dynamics and outcomes.

**Theme 6: Role of Technology in Virtual Leadership and Work**

Technology is a primary input factor, shaping the virtual work environment. It affects structural supports (information technology) and team composition (team member skills). The adoption and comfort with these technologies involve motivational processes,
as leaders must engage employees to use these tools effectively. This engagement leads to positive outcomes like enhanced collaboration and productivity.

**Theme 7: Performance and Productivity of Virtual Employees**

Concerns about monitoring and maintaining productivity represent critical input factors in the IPO model. These inputs, such as accountability and trust, influence the team's dynamics and interactions. The reported increase in productivity due to the virtual work environment can be considered an outcome influenced by cognitive, emotional, and behavioral processes.

In summary, the findings of this study can be applied to the IPO framework by categorizing aspects of each theme into either input factors, mediating processes, team virtuality, or outcomes. The IPO framework provides a comprehensive structure for analyzing the challenges and benefits of virtual leadership and work while highlighting the role of leadership, team dynamics, communication, technology, performance, and productivity within this context. Figure 3 provides a representation of the themes and findings from this study applied to the IPO framework for virtual teams.
Figure 3

Themes and Findings Applied to the Input-Process-Output (IPO) Framework

Note. The themes and findings from the study applied to the Input-Process-Output (IPO) framework for virtual teams.

Further Considerations of the IPO Framework

The IPO framework is a robust lens through which the dynamics of virtual leadership and teams can be analyzed and understood. By categorizing the various aspects of virtual leadership and work into inputs, processes, and outputs, the framework can provide valuable insights into how these components interact and influence the outcomes of virtual teams. While the IPO framework provides a structured foundation for comprehending these dynamics, there are certain aspects within the study's findings that may warrant alternative interpretations.

It is important to acknowledge that the real-world dynamics of virtual teams are often multifaceted and do not always conform precisely to the specific categories of inputs, processes, and outputs outlined within the IPO framework. It is also important to
recognize that leadership within virtual contexts is not a one-dimensional input but a complex and evolving process. The same applies to effective communication, technology, and productivity, each of which plays dual roles in shaping the inputs and processes that ultimately lead to team outcomes. For example, intentionality in leadership, effective communication, technology, and the intricacies of maintaining performance and productivity may not always neatly fit into the distinct categories within the IPO framework. Instead, they can be viewed as bridging the inputs, processes, and outputs, forming an interconnected and dynamic network that supports the functionality of virtual teams.

The IPO framework represented by the themes and findings of this study include intentionality as a component of the leadership input category. However, it may be necessary to also consider intentionality as a critical aspect of the leadership process itself. Intentionality influences leadership behavior and decision-making that can be interpreted as a process, and in turn, affects the output of team dynamics and outcomes. Therefore, an alternative view may recognize intentionality as both an input and a process within the framework.

Communication is categorized as an input factor representing aspects of structural support and virtual team composition within the IPO framework. However, communication is not only an input, but it can also be viewed as a process that heavily influences team dynamics and outcomes. The way communication is carried out, such as the use of conflict resolution strategies, also aligns with the process category of the IPO framework. Therefore, communication is a dynamic component that does not neatly fit into a specific category but rather spans and interconnects with the entirety of virtual
leadership and teams. Similarly, within the IPO framework, technology is presented as a primary input, but technology also heavily influences team processes. For example, technology not only shapes the virtual work environment as an input but also significantly affects communication and collaboration processes. Therefore, technology can play a dual role in the framework as both input and process.

In essence, it is important to recognize that many of the components represented in the IPO framework are not strictly inputs but also interact with the processes and contribute to the outcomes. Therefore, it may be necessary to consider the findings as dynamic components that bridge the input, process, and output components of the IPO framework, rather than applying strict categorizations. This alternative approach may help to provide a more comprehensive understanding of how the factors influence the dynamics of virtual leadership and teams.

**Assumptions**

In this study, memos and reflective journaling were used to challenge the researcher’s assumptions and existing knowledge of the phenomenon. The researcher used Nvivo and Microsoft OneNote during the data collection and analysis to write reflective notes about the researcher’s experiences and assumptions in relation to the participant experiences. These methods were used to achieve bracketing in which the researcher acknowledged and set side preconceived beliefs, assumptions, and biases about the phenomenon to approach the participant experiences and research findings with an open and unbiased perspective. During the participant interviews and the subsequent data analysis, the researcher identified instances where certain experiences resonated with his own background and personal history related to the phenomenon. However, the researcher also recognized that participants' experiences often unfolded in distinctive and
nuanced ways that diverged significantly from the researcher's assumptions, beliefs, and experiences.

To challenge assumptions the researcher also used member checking to ensure the accuracy of the findings and interpretations. The researcher asked the participants to clarify statements and experiences during the interview process. Additionally, the researcher reached out to participants during the data analysis process to seek feedback and confirm the accuracy and interpretation of their experiences. This process was used to uncover discrepancies within the data analysis and findings, and to ensure the findings aligned with the participant viewpoints and experiences.

During the study, the researcher’s assumptions about transitioning to virtual work were challenged as well. One assumption that was challenged pertained to the pace at which leaders and employees adapt to the virtual work environment. Contrary to the initial expectations of the researcher, a notable portion of employees demonstrated a remarkable capacity to quickly acclimate and adapt to remote work. This adaptability also challenged the preconceived notion of the researcher that many leaders and employees would be uncomfortable with permanently shifting to virtual work. Another assumption that was challenged related to leaders being concerned about the performance and productivity of their teams due to their inability to visibly monitor employees in a physical office. Contrary to this expectation, leaders displayed a higher degree of trust in their teams, recognizing the importance of fostering accountability and open communication in the virtual setting. These paradigm shifts in both adaptability and trust illuminated the complex and multifaceted nature of virtual work experiences,
demonstrating that specific assumptions about virtual work might not align with the diverse realities encountered by virtual leaders.

**Limitations**

The limitations of this study are provided in this section. While this study provides valuable insights into the experiences of leaders transitioning to managing virtual teams during the COVID-19 pandemic, it is important to acknowledge the limitations as well which may impact the transferability and generalizability of the findings. While the insights gleaned are contextually rich and relevant to the specific demographic, caution should be exercised when extrapolating these findings to a broader population. Recognizing these limitations is crucial for refining and expanding the applicability of findings to a wider array of leadership contexts and demographics.

**Participants**

The participants included in this study were limited to leaders that worked virtually, from home. The study did not include any non-virtual leaders who worked in a physical office but managed a virtual team. The nature of virtual work is dynamic across organizations, and it is important to recognize there are many team arrangements, such as fully virtual teams including a virtual leader, virtual teams in which the leader is not virtual, or blended teams in which there is a mix of virtual and in-person team members. Additionally, all participants in the study identified themselves as white/Caucasian. This homogeneity may limit the generalizability of the findings to a more diverse population. The experiences, perspectives, and challenges faced by leaders from different racial and ethnic backgrounds may not be fully represented in this study.

Another limitation pertains to the age distribution of participants, as no leaders under the age of 26 were represented in the study. This absence in age diversity excludes
insights from a segment of young leaders who are likely to be navigating their initial leadership roles and early career experiences. The unique challenges, perspectives, and adaptive strategies of this demographic may not be fully captured, limiting the breadth of understanding regarding the experiences of virtual leadership, particularly among those newer to leadership roles.

**Setting and Geographical Boundaries**

This study was conducted at a non-profit health system organization, which may restrict the transferability of the findings to other organizational contexts. The uniqueness of healthcare systems, both in their operational intricacies and the nature of work, may limit the applicability of the results to different industries. Additionally, this study encompasses a geographical region specific to Kentucky and southern Indiana. The experiences and challenges of leaders and their teams within this specific healthcare system may differ from those in other regions. Additionally, the size of the organization, with over 25,000 employees, may not capture the nuances of virtual leadership in smaller healthcare settings or in smaller organizations. Therefore, while the findings offer valuable insights, it is crucial to interpret those findings within the context of this organization and consider the potential variation in the experiences of virtual leaders across various healthcare settings and other organizations.

**Evolving Context**

The phenomenon examined in this study was specific to events and circumstances surrounding the COVID-19 pandemic and a transition to virtual work that resulted from the pandemic. The nature of virtual work is continuously evolving and the findings from this study reflect the context of a specific period and may not represent current or future conditions. Additionally, the experiences of leaders managing virtual teams are subject to
change over time and in a post-pandemic world. Therefore, the findings represent a
snapshot of a particular moment in this ongoing phenomenon.

Social Desirability Bias

Another limitation is the possibility that participants may have been influenced by
social desirability bias during the interviews and in the presence of the researcher. In such
a situation the participants may have presented themselves and their experiences in a
more positive or socially acceptable manner. This could have potentially resulted in data
accuracy issues, including the risk of underrepresenting challenges or the disclosure of
experiences that might have portrayed the leader more favorably than the actual reality.

Full Context of Lived Experience

While this study delves into the multifaceted landscape of virtual leadership, it is
important to acknowledge that the full spectrum of lived experiences, particularly
concerning work-life balance, warrants further exploration. The intersectionality of
gender, personal life, and professional responsibilities may play a crucial role in shaping
the experiences of virtual leaders. The nuanced gendered dimensions of work-life balance
were not explicitly addressed in this study. Future research endeavors might investigate
how gender dynamics intersect with virtual leadership, shedding light on potential
disparities and unique challenges faced by leaders based on their gender identities.
Recognizing and understanding these complexities is vital for fostering inclusivity and
promoting effective strategies for managing the intricate relationship between work and
personal life in virtual leadership roles.
Recommendations for Future Research

Based on the findings of this study and the evolving nature of virtual work there are many potential areas for future research. Recommendations for future research are provided in this section. These recommendations reflect the evolving nature of virtual work and leadership in a post-pandemic world and highlight areas where further research can provide valuable insights for researchers, practitioners, and organizations.

Long-Term Impact of Virtual Work

A potential area for future research is the investigation of the long-term effects of virtual work and leadership, especially as the COVID-19 pandemic subsides. Such research could include longitudinal studies to examine how leadership practices evolve and adapt as organizations settle into a more permanent model of virtual work.

Employee Perspectives

While this study primarily focused on the experiences of virtual leaders, future research could shift the focus to an exploration of the experiences of non-leadership, virtual employees. It is important to understand how employees perceive their virtual leaders and what factors contribute to employee well-being and productivity in virtual settings based on the perspective of the employee.

Technology and Leadership

An in-depth investigation into the ongoing role of technology in virtual leadership may provide additional insights into the importance of technology to the success of virtual leaders and teams. Such an investigation could explore how leaders effectively leverage emerging technologies such as artificial intelligence, augmented reality, and virtual reality in virtual environments.
Mental Health and Well-being

Given the importance of employee well-being, future research could delve deeper into an exploration of how leaders and organizations can support the mental health of virtual team members. This research area could involve an examination into the effectiveness of wellness programs, flexible scheduling, and mental health resources.

Organizational Culture and Values

The findings of this study demonstrated that the experiences of virtual leaders were intricately intertwined with and influenced by the organizational culture. The role of organizational culture on virtual leadership should be explored with a focus on how different cultures and value systems impact leadership styles and effectiveness in virtual settings.

Leadership Training and Development

The topic of training was mentioned by multiple participants in relation to virtual leadership and virtual team effectiveness, but a deeper investigation into this phenomenon was outside the scope of this study. Therefore, another potential area for future research might explore the design and impact of leadership development programs tailored to virtual leadership. Additionally, future research could examine how organizations can better prepare leaders and employees to excel in virtual environments.

Hybrid Work Models

As hybrid work models become more prevalent, it may be important to understand how leadership practices need to adapt in environments where some employees work remotely while others are on-site. Such research could focus on topics related to best practices for leading hybrid teams.
Impact on Specific Industries

This study focused on a healthcare organization located in Kentucky and southern Indiana. Additional research could examine how virtual leadership practices differ across other industries, such as customer service, education, finance, or technology. This research could help to uncover industry-specific challenges and opportunities that may require different and diverse leadership strategies.

Sustainability and Environmental Impact

In this study, participants mentioned experiences that demonstrate how virtual work may help to reduce the carbon footprint of organizations. Future research could further explore potential environmental benefits that result from changes such as reduced commuting, going paperless, and the reduced need for physical office spaces.

Implications

The insights garnered from this study offer crucial implications for organizations, leaders, and the future landscape of work, particularly as virtual leaders and teams continue to evolve and adapt. This study also highlights that organizations swiftly transitioned to virtual work in response to the Covid-19 global pandemic which may result in additional impacts and outcomes that are currently unknown. Additional concerns related to the swift transition to virtual work may contribute to unintended risks such as an impact on cyber security. Specifically, organizations may face increased risks due to aspects of virtual work including an increased digital presence of employees, the monitoring of a distributed workforce, the potential for data breaches, vulnerabilities of remote access, device security, inadequate training, and phishing and social engineering attempts. The abrupt transition to virtual work could also result in leaders and organizations scrutinizing the hasty decisions that were made during the pandemic’s early
stages. This may result in leaders and organizations assessing whether virtual work arrangements remain sustainable and if additional, long-term solutions should be explored as alternatives.

This study also underscores the importance of understanding the multifaceted nature of transitioning to virtual work. Leaders and employees alike experienced a combination of benefits and challenges. Employers can benefit from recognizing the need for more intentionality in virtual leadership, adapting leadership styles to suit the virtual setting, and focusing on effective communication and technology use. Organizations should acknowledge and leverage these benefits, such as increased flexibility and cost savings, while addressing the challenges, like concerns about visibility within the organization and the potential for employees to feel disconnected from others. Achieving a balance between virtual and physical presence is key. In-person meetings and interactions should complement virtual work, not replace it entirely. Organizations and leaders should focus on creating inclusive and supportive environments where virtual and in-person team members feel equally valued and connected. By adopting this approach, leaders and their employees can continue to enjoy the advantages and benefits of virtual work while ensuring their social and support needs are effectively addressed.

There are also implications of virtual work based on age and generational differences. Virtual work may align more naturally with younger individuals, particularly those who are more tech-savvy and adaptable. Additionally, younger employees may be more comfortable with digital communication tools and interacting virtually. However, as mentioned by participant 15, even some younger individuals, such as those who are more
introverted, can feel isolated in virtual environments. Despite familiarity with technology, many employees still value personal interactions and social connections.

In contrast, older individuals, as described by participant 17, might face challenges adjusting to the virtual work setting. This group may have grown accustomed to in-person, face-to-face interactions as the primary mode of communication throughout their careers. The absence of these interactions in virtual work settings can lead to feelings of disconnection and isolation. The findings of this study suggest that loss of casual, impromptu conversations and “water-cooler” interactions can be particularly challenging for those who have spent a significant portion of their career in a physical office.

This study highlights the adaptability and resilience of leaders and employees in the face of unanticipated and abrupt change. These adaptive skills may be considered when identifying future leaders, as the need to face unforeseen challenges in our rapidly evolving work environment will continue. Organizations need to also consider the long-term impact of virtual work, with a focus on employee performance and well-being over extended periods. This study also has implications on the interplay between leadership styles and virtual work outcomes where it may be helpful for organizations to explore additional strategies to help leaders and employees manage and investigate strategies to mitigate the challenges of virtual work.

Finally, this study offers a deeper understanding of the challenges and benefits of managing virtual teams, with implications for improving leadership practices, organizational culture, and future research directions. Recognizing the evolving nature of
work, and specifically virtual work, organizations that actively respond to the insights from this research may be better positioned to succeed in an increasingly virtual world.

Conclusion

In an era marked by rapid technological advancements, virtual leadership and work have become integral components of modern organizations. This phenomenological qualitative study aimed to explore the lived experiences of leaders who transitioned to managing virtual teams during the unprecedented circumstances of the COVID-19 pandemic. Through rigorous data collection and analysis, the central research questions were investigated, and the subsequent findings described the essence of experience of leaders in relation to the central phenomenon of transitioning to the virtual environment. Seven distinct themes emerged from this analysis that offer an understanding of the complex and multifaceted landscape of virtual leadership and work.

Virtual work presents numerous benefits, including enhanced flexibility, cost savings, and improved work-life balance for leaders and employees alike. Alongside these benefits, leaders also encountered challenges such as concerns about career mobility, difficulties with communication, and feelings of disconnection. Successful virtual leaders emphasized the need for purposeful actions, intentional communication, and relationship-building in the virtual environment. Leaders tailored their existing leadership styles to fit the virtual environment while promoting accountability, effective communication, trust-building, and adaptability. Effective communication was recognized as a cornerstone of virtual leadership, encompassing a range of behaviors, tools, and strategies. Technology played a pivotal role to the success and effectiveness of virtual leaders and teams, highlighting the need for adaptability and access to adequate resources. Concerns about monitoring performance and productivity lessened over time,
with leaders reporting enhanced performance and productivity in the virtual environment supported by accountability, trust, and dedication.

Overall, the findings of this study underscore the critical importance of intentionality, effective communication, adaptability, and technology adoption to the success of the virtual leader. Furthermore, it is evident that the transition to virtual work can offer both significant advantages and challenges. Effective leadership practices emerged as a primary factor necessary to ensure the smooth and productive functioning of virtual teams. In sum, this study provides valuable insights that apply not only to the specific context of the COVID-19 pandemic, but also to an increasingly digitized and virtual work environment. The experiences shared by the participants reveal the dynamic nature of leadership in the modern era and highlight areas of opportunity for future research and practice in virtual leadership.
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APPENDIX A: DEMOGRAPHIC QUESTIONNAIRE

1. Age
   - Under 25
   - 26-41
   - 42-57
   - 58-67
   - Over 67

2. Gender
   - Female
   - Male
   - Prefer not to answer

3. Ethnicity
   - American Indian or Alaskan Native
   - Asian or Pacific Islander
   - Black or African American
   - Hispanic or Latino
   - White / Caucasian
   - Other
   - Prefer not to answer

4. Relationship Status
   - Married
   - Widowed
   - Divorced
   - Separated
   - In a domestic partnership or civil union
   - Single, but in a relationship with a significant other
   - Single, never married

5. Children (total)
   - None
   - 1
   - 2
   - 3
   - 4
   - More than 4

6. Children (living at home)
   - None
   - 1
7. Education Level
   - High School
   - Some College
   - Associate degree
   - Bachelor’s Degree
   - Master’s Degree
   - Doctoral Degree
   - Other
8. Years with the organization
   - Less than 2
   - 2-3
   - 4-5
   - 6-7
   - 8-9
   - 10 or more
9. Years in non-virtual leadership position
   - Less than 2
   - 2-3
   - 4-5
   - 6-7
   - 8-9
   - 10 or more
10. Years in virtual leadership position
    - Less than 2
    - 2-3
    - 4-5
    - 6-7
    - 8-9
    - 10 or more
11. Number of direct reports
    - 1
    - 2-3
    - 4-5
    - 6-7
    - 8-9
    - 10 or more
APPENDIX B: INTERVIEW QUESTIONS

1. How would you describe your general experience with managing a virtual team?

2. How have your experiences managing a virtual team been different from managing a face-to-face team?

3. Describe any challenges you have experienced while managing a virtual team.

4. Describe any benefits you have experienced while managing a virtual team.

5. Describe any steps you have taken to improve your ability to lead virtually.

6. Do you feel you were prepared to lead a virtual team? Why or why not?

7. How do you describe your current leadership style?

8. How has your leadership style changed, or not changed, while managing virtually?

9. Based on your experiences, what leadership skills and traits do you feel are essential to managing a virtual team?

10. How have you built trust and psychological safety among your virtual team members?

11. How have you managed conflict in the virtual setting?

12. How has technology or access to technology affected your ability to manage virtually?

13. How do you use technology to monitor the performance and productivity of your team?

14. How has technology impacted your communication and the communication of your team?
15. Is there any other information you would like to share about your experiences with leading a virtual team?

16. Do you have any final comments, concerns, or questions that you would like to share?
APPENDIX C: INTERVIEW PROTOCOL MATRIX

<table>
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<tr>
<th>Interview Questions</th>
<th>Research Question 1</th>
<th>Research Question 2</th>
<th>Research Question 3</th>
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## APPENDIX D: CATEGORIES

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<td>Nature of virtual work</td>
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<td>Performance and productivity</td>
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<td>Talent management</td>
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<td>Technology</td>
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<td>Trust and psychological safety</td>
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<td>Work-life balance and well-being</td>
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</table>
CURRICULUM VITAE

Jason W. Oliver
Louisville, KY

Education

PhD  Educational Leadership and Organizational Development  December 2023
     University of Louisville

MS  Human Resources and Organization Development  December 2013
     University of Louisville

BS  Organizational Leadership and Learning  December 2011
     University of Louisville

AAS  Information Technology – Multimedia  May 2006
     ITT Technical Institute

Work Experience

Baptist Health – Louisville, KY  October 2018 to Present

Senior Instructional Designer & eLearning Developer

- Works with stakeholders to research, assess, and recommend learning and talent development support technologies, platforms, processes, and content.
- Designs and develops multimedia, eLearning, and related assets, including branching simulations, video, audio, graphics, and animations.
- Oversees the delivery and testing of learning content and technologies to ensure quality assurance and optimize the user experience.
• Collaborates with subject matter experts to develop learning content and related assets.
• Collaborates with stakeholders to create best practices for learning content delivery and optimization of the LMS.
• Manages project timelines and communicates with stakeholders.
• Monitors ongoing improvements in eLearning and media creation tools and technologies.
• Maintains a high level of proficiency with eLearning authoring and multimedia development tools and technologies.

Galen College of Nursing – Louisville, KY January 2016 to May 2018
Adjunct Faculty
• Courses Taught (Virtual)
  o STA 220 – Introduction to Applied Statistics
  o LDR 440 – Disney Leadership Strategies

Galen College of Nursing – Louisville, KY January 2014 to April 2018
Senior Instructional Designer
• Designed and developed multimedia, eLearning, and related assets, including branching simulations, video, audio, graphics, and animations.
• Developed assessments, rubrics, and measurable learning objectives.
• Collaborated with subject matter experts to develop learning content and related assets.
• Administered and supported the learning management system.
• Managed project timelines and communicated with stakeholders.

Signature Healthcare – Louisville, KY April 2013 to January 2014
Senior Instructional Designer
• Designed and developed multimedia, eLearning, and related assets, including branching simulations, video, audio, graphics, and animations.
• Developed assessments, rubrics, and measurable learning objectives.
• Collaborated with subject matter experts to develop learning content and related assets.
• Administered and supported the learning management system.
• Managed project timelines and communicated with stakeholders.

The Learning House – Louisville, KY April 2012 to March 2013
Learning & Development Manager
• Developed and implemented learning strategies and programs.
• Maintained budgets and relationships with stakeholders.
• Managed project timelines and communicated with stakeholders.
• Designed and developed multimedia, eLearning, and related assets, including branching simulations, video, audio, graphics, and animations.

Heartland Payment Systems – Jeffersonville, IN December 2006 to December 2011
Learning & Development Manager / Curriculum Developer

• Developed and implemented learning strategies and programs.
• Maintained budgets and relationships with stakeholders.
• Managed project timelines and communicated with stakeholders.
• Designed and developed multimedia, eLearning, and related assets, including branching simulations, video, audio, graphics, and animations.

Honors and Awards

R. Wayne Pace Award in Human Resource Education 2013
Named after the founding president of the Academy of Human Resource Development and it recognizes an outstanding graduate student in Human Resource Education who exemplifies the Academy’s mission of leading the field through research-based practice.

Publications
