



8-2022

## **The effects of remote work on organizational culture: Examining the effects of external social support to mitigate social isolation within organizations**

Katherine Rogers

*University of Tennessee, Knoxville*, kroger44@vols.utk.edu

Follow this and additional works at: [https://trace.tennessee.edu/utk\\_gradthes](https://trace.tennessee.edu/utk_gradthes)



Part of the [Organizational Communication Commons](#)

---

### **Recommended Citation**

Rogers, Katherine, "The effects of remote work on organizational culture: Examining the effects of external social support to mitigate social isolation within organizations. " Master's Thesis, University of Tennessee, 2022.

[https://trace.tennessee.edu/utk\\_gradthes/6473](https://trace.tennessee.edu/utk_gradthes/6473)

This Thesis is brought to you for free and open access by the Graduate School at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Masters Theses by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact [trace@utk.edu](mailto:trace@utk.edu).

To the Graduate Council:

I am submitting herewith a thesis written by Katherine Rogers entitled "The effects of remote work on organizational culture: Examining the effects of external social support to mitigate social isolation within organizations." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Communication and Information.

John W. Haas, Major Professor

We have read this thesis and recommend its acceptance:

Jenny L. Crowley, Emily A. Paskewitz

Accepted for the Council:

Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

**The effects of remote work on organizational culture: Examining the effects of external social support to mitigate social isolation within organizations**

A Thesis Presented for the  
Master of Science  
Degree  
The University of Tennessee, Knoxville

Katherine F. Rogers  
August 2022

## ABSTRACT

While remote work is not an entirely new concept, the effects of the COVID-19 pandemic triggered a massive increase in remote work for over a year for some individuals and organizations. Looking to the future, some companies have already developed remote work policies and stated their intentions to allow employees to work from home on a more consistent basis. There are various advantages and disadvantages to remote work for employees and their employers, as outlined in the previous literature. However, due to the short amount of time that remote work has been implemented for these organizations, there may be long-term implications that have not yet been studied. This study aimed to examine the effects of remote work on organizational culture, namely the effect of external social support as it may be sought out to mitigate social isolation within the organization. Participants ( $N = 199$ ) were recruited through Amazon's Mechanical Turk (MTurk) online portal and completed a 50-item survey with measures including remote work practices, perceived organizational culture, informal communication, social connectedness, and external social support. Results were analyzed using Statistical Package for the Social Sciences (SPSS) to identify any possible relationships between variables and determine potential correlations. Based on the results, the study did not support the hypothesis or research question, however this provides useful insight that remote work may be a viable option for future organizations.

# TABLE OF CONTENTS

Chapter One Introduction and General Information.....	1
Chapter Two Literature Review.....	3
Remote Work.....	3
Organizational Culture.....	5
Informal Communication.....	7
Social Connectedness.....	7
External Social Support .....	8
Rationale for Research.....	9
Chapter Three Methods.....	10
Participants.....	10
Procedures.....	10
Measures .....	11
Remote Work Practices.....	11
Organizational Culture.....	12
Informal Communication.....	12
Social Connectedness.....	12
External Social Support .....	13
Demographic Information.....	13
Data Analysis .....	14
Chapter Four Results.....	15
Chapter Five Discussion .....	17
Chapter Five Conclusions and Recommendations .....	20
Conclusion .....	20
Recommendations.....	21
References.....	23
Appendices.....	27
Vita.....	38

# CHAPTER ONE

## INTRODUCTION AND GENERAL INFORMATION

As a result of the COVID-19 pandemic, many organizations were forced to adopt remote work practices to comply with quarantining and social distancing. Not all organizations were able to implement this change, however the “knowledge-based occupations” that did faced various advantages and disadvantages as gathered by previous researchers (Madsen, 2011; Klopotek, 2017). While remote work is not an entirely new concept (Joice, 2000), this drastic increase in the amount of remote work has led many employees and organizational executives to consider the potential of remote working to remain a substantial aspect of future work life (Ozimek, 2021; Brenan, 2020). However, there is limited research on the long-term effects of remote work, specifically regarding the effect remote work has on organizational culture. Therefore, the purpose of this study is to examine the possible effects on organizational culture when employees engage in higher amounts of remote work.

Previous research shows remote workers engage in less informal communication (Blanchard, 2021) and are subjected to higher levels of social isolation (Charalampous et al., 2018); therefore, this study aims to determine how remote workers respond to these stressors and how their behaviors potentially affect the organization’s culture. This is an important topic to study for multiple reasons. First, while there is detailed research outlining how individuals perceive remote work and the advantages and disadvantages it has for each person (Klopotek, 2017), there is limited research on how remote work affects organizational culture. Second, the recent pandemic forced organizations to adopt a remote work environment for over a year and a substantial number of companies and employees have started to or are looking to adopt this modality more permanently in the future (Ozimek, 2021; Brenan, 2020). Third, previous research has shown that individual employees prefer a clan culture, and that adhocracy as well as clan cultures are shown to have the greatest effects on organizational performance (Gardner et al., 2009; Warrick, 2017). Nevertheless, remote work tends to lead toward more isolation and less communication among organizational members. Consequently, while remote work has many advantages for the individual employee (e.g., better work-life balance, greater autonomy, saving

time and money on commuting) as well as organizations as a whole (e.g., reduced costs of office space, less employee absences, higher individual productivity) there are also a host of disadvantages, with a potential major drawback being a deteriorating organizational culture. Due to this rapid expansion of remote working and its new role in the future of organizational communication, there is a gap in the research which this study attempts to contribute to.

## CHAPTER TWO

### LITERATURE REVIEW

#### Remote Work

While remote work has gained popularity in recent years due to technological advances and was heavily implemented as an emergency response to the COVID-19 pandemic, it is not an entirely new concept. The idea of working outside the co-located office environment started with “telecommuting” and “teleworking”, terms coined by Jack Nilles in 1973 to describe work that was completed in a different location than the co-located office to reduce travel times for employees. Frank Schiff then developed the term “Flexiplace” to expand the concept of organizational work outside the realm of the employee’s home. One clear application of Flexiplace was adopted in 1989 as an emergency response to an earthquake damaging an office building in California, displacing 800 employees. For the time being, employees either worked at home or an auxiliary command post. This arrangement was favored by managers and staff but revealed that future implementation of Flexiplace work would require changed management and organizational culture as well as increased overhead costs for employers (Joice, 2000). This was all made possible with the advancement of the Internet and networks which allowed for teleconferencing and opened the door to employment for persons with chronic illness, physical handicap, or children (Licklider & Veza, 1978). While studies outlined various advantages and disadvantages of telework for both employees and organizations, as outlined below, aside from small scale pilot tests and experiments, this work-at-home arrangement wasn’t heavily utilized due to managerial resistance (Ellison, 1999).

More recent terminology defines work-at-home and similar arrangements as remote work, defined by M.H. Olson as “organizational work that is performed outside the normal organizational confines of space and time” (Olson, 1983, p. 182). While these terms may be used interchangeably there are slight variations in each definition regarding location of work, time of work, and the like. Therefore, for the purposes of this study, the researcher will use the broad term “remote work” to indicate any work that occurs outside of the organization’s standard office setting, conducted during regular business hours, as it pertains to that organization. In addition to the previous use of email, online or text messaging, there are also now a variety of



communication tools that contribute to remote working abilities including, but not limited to, video conferencing and collaborative systems (e.g., Google Suite, Microsoft Teams). These tools and technologies allow for the possibility of remote work and virtual face-to-face communication; however, it comes with various advantages and disadvantages.

DiMartino and Wirth (1990) initially outlined various advantages of remote work including enterprise cost savings, increased employee productivity, recruitment and retention of staff, jobs for disabled individuals, rural development, reduced commuting time, and working time flexibility. More recently, Madsen (2011) summarized additional benefits of remote work to include “avoidance of office politics, better work/family balance, flexibility to relocate; improved morale, productivity, quality of life and work life; increased autonomy, family and leisure time, job satisfaction, and technical skills; less distractions and spillover; lower stress level; more community ties; and saving money on gas and parking.” Research therefore demonstrates the possible advantages of remote work, but not without also mentioning some of the disadvantages.

In addition to the advantages outline above, DiMartino and Wirth (1990) stated remote work led employees to feel isolated from their co-workers, marginalized, exploited, and resulted in increased stress, while employers noticed decentralization of power as well as a fading company identity. Due to the limited social presence in computer mediated communication at the time there was a loss of nonverbal communication when working remotely (Hesse & Grantham, 1991) and there was a loss in co-worker communication, however communication increased in supervisor-subordinate relationships with more structured and formalized communication (Wellman et al., 1996). Managers, nevertheless, felt their power was threatened due to lack of visibility and control as supervisory habits have not changed since industrialization (Ellison, 1999). Klopotek (2017) reiterated some of these disadvantages of remote work but also described new ones including “overworking and increased work hours, professional and social isolation, reduced sense of social status, blurred boundaries between work and family life, higher requirements for work organization, limited nonverbal communication, and lack of participation in corporate culture”. Therefore, even though research has shown there are possible negative effects of remote working since its first implementation, the alternative is still permitted in organizations today and shows potential for increasing in the future.

As previously mentioned, many organizations were unable to remain open and employees were required to work remotely to maintain employment following the virus outbreak. Bick et al. (2020) documented that the amount of the workforce working entirely from home rose from 8.2 percent in February 2020 to 35.2 percent in May 2020. These were likely knowledge-intensive occupations defined as “a position in which both the raw material and the products of labor are information-based rather than physical artifacts” (Asatiani, 2021, p. 63). While remote work was likely to continue steadily increasing prior to the pandemic, this rapid transition influenced many organizations to allow remote work of some capacity in the immediate future. In a 2021 study by Upwork’s Chief Economist, Adam Ozimek, 1,000 U.S. hiring managers were asked how they saw their workforce changing as a result of COVID-19 and 71 percent responded that they were planning to sustain or increase their use of remote work, as compared to before the pandemic. Similarly, Mark Zuckerberg claimed that “at least half of Facebook’s 50,000 employees would be working from home by 2030” and Jack Dorsey announced that “Twitter and Square’s employees would be allowed to work where[ever] they feel most creative and productive” even once offices began to reopen (Harvard Business Review, 2020). From an employee perspective, a survey of 2,730 U.S. adults revealed that nearly 65% of employees reported wanting to continue working remotely in the long term (Brenan, 2020). These figures imply that the future of remote work is imminent, but this may have implications for organizational culture as it is facilitated by employees’ interactions and the development of new organizational norms.

## **Organizational Culture**

Organizational culture is typically defined as the “artifacts, values, and assumptions that emerge through the communicative interactions of organizational members” (Keyton, 2011, p. 28). Schein (1985) also included the concept of norms within his definition of culture, a clear indicator of how organizational members’ interactions and social rules reinforce and maintain the culture of the organization. These aspects of culture can be observed and studied in groups of all sizes, pertaining to entire organizations as well as smaller groups of team members within an organizational department (Schein, 1990). While there are various classifications of organizational culture, this proposal utilizes Cameron & Quinn’s (2011) Competing Values Framework.

As outlined by the Competing Values Framework (2011), organizational culture can be defined on two dimensions, namely having an internal or external focus, and valuing stability or flexibility in terms of change. While these dimensions are presented as continuums, organizations are likely to orient themselves one way or another, thus creating four distinct cultures: adhocracy, clan, hierarchy, and market. Adhocracy culture is apparent in organizations that promote flexibility and have an interest in making changes but do so with an external focus. These organizations are usually highly innovative and are constantly focused on making changes in relation to the environment in order to grow and succeed. Organizations that identify as having a clan culture have an internal focus with a preference for flexibility and discretion. These organizations are typically regarded as a “family” due to employees’ highly friendly nature and management’s focused efforts on employee well-being. Hierarchy cultures are defined as having an internal focus and favor stability and control, typically relying on formal policies and procedures. Organizations with market cultures also prefer stability and control, however they orient themselves toward an external focus, stressing competitiveness and making major changes within short amounts of time (Cameron & Quinn, 2011). With any culture, it is established and developed through diffusion, and can be described as strong or weak, depending on how deeply it is embraced by the organizational members.

Diffusion of innovation is a process in which an idea or concept is communicated over time by members of a social system through certain channels (Rogers, 2003). With respect to organizational culture, diffusion would encompass new employees observing, evaluating, implementing, and adopting the norms, values, and practices of other members within the organization. This diffusion of beliefs and behaviors would then lead to a stronger organizational culture. A strong organizational culture is implied by values and beliefs that are shared widely by employees and strongly adhered to. Weak organizational culture indicates that employees rely more on personal principles, norms, and values rather than adhering to values or beliefs of the organization (Thokozani & Maseko, 2017). Strong organizational culture creates group harmony and makes it easier for employees to complete a shared goal or objective by adhering to common norms and practices, whereas weak organizational cultures can be problematic as there is no shared goal or values and it can be difficult to be successful with differing values and approaches. This cultural trait can be viewed as a continuum between strong and weak and is

facilitated by diffusion. One key aspect of organizational culture and a channel for diffusion, is communication.

### **Informal Communication**

In remote work settings there is usually an absence of informal communication due to employees' lack of interaction which was previously conducted in hallways, break rooms, shared offices, and the like in co-located office environments. The absence of face-to-face interaction in remote work environments hinders employees' ability to recognize underlying assumptions and finer details of communication (Ahuja & Galvin, 2003), thus damaging their ability to connect with peers and sustain their organization's cultural norms. Marra & Holmes (2004) describe informal communication as the "social glue" of the workplace because it allows employees to develop and maintain relationships (Tracy, 2002) as well as allowing them to truly feel as if they belong and are connected to others (Waldron, 2003). In a 2021 study that conducted interviews with nine employees from varying companies, six of the respondents mentioned in some regard that they had considerably less informal interaction and contact with their colleagues, leading to decreased feelings of social connectedness (Eriksson, 2021). Another study showed similar results, providing evidence that feelings of social isolation negatively impact employees' adjustment to remote work, contributing to the literature that highlights the lack of informal communication in remote work environments and the importance of social connectedness between employees (van Zoonen, 2021). Therefore, informal communication is extremely valuable in remote work environments where membership claims and group cohesion are undoubtedly challenged, leading remote workers to lack social connectedness which may differ greatly from their previous organizational culture, or expectations.

### **Social Connectedness**

Remote work allows employees within knowledge-intensive occupations to work from any location that supports their role and responsibilities. With a myriad of locations providing internet and electricity at no cost, this broadens the workplace from exclusively the office or home to include places such as customer sites, hotels, airports, and cafes (Charalampous et al., 2018). Additional technology also allows individuals to use their phones as hotspots, so any

location with cellular service has the potential to be transformed into a work environment. Co-workers and teams that are no longer co-located are able to communicate through email or instant messaging, and can replicate face-to-face communication through video conferencing, but qualitative findings suggest that remote workers missed the “spontaneous socialization” that previously occurred in their co-located office environments (Tietze & Nadin, 2011). The limited face-to-face interaction and increased physical distance between colleagues and supervisors also led some employees to feel as if “out of sight really was out of mind” (Sewell & Taskin, 2015, p. 1518). A recent study by van Zoonen provided evidence that the negative relationship between trust and adjustment to the remote workplace seemed to be mitigated by more frequent use of various communication technologies, but the communication quality did not mitigate the amount of social isolation employees' felt (van Zoonen, 2021). This lack of connection and communication is also recognized by supervisors. In a survey completed by 1,500 hiring managers in the U.S., 30.5% of participants stated they observed reduced team cohesion as a result of remote work implemented due to the pandemic (Ozimek, 2020). These studies show that with increasing remote work arrangements individuals are subjected to the risk of social isolation (Rai, 2020), resulting in poor work relationships, a reduced sense of “belonging”, and even decreased organizational commitment (Larson et al., 2020). Maslow’s Theory of Human Motivation (1943) outlines the hierarchy of basic needs each individual attempts to satisfy in their everyday behaviors. Physiological needs are first in order of priority, followed by safety, love and belonging, esteem, and self-actualization (Maslow, 1943). Therefore, individuals innately desire to connect with others and the lack of communication between remote workers could potentially lend socially isolated individuals to seek social support outside of their organization. These employees may gain emotional support from friends and family or considering the affordance of technology to provide us with the ability to connect with distant peers, remote workers may utilize social media to gain a sense of belonging as well.

### **External Social Support**

Social connectedness can be created on an organizational level, similar to group cohesion and culture, or on an individual level, allowing for a greater connection with a specific person (van Bel et al., 2009). Full time employees typically work 40 hours a week, spending about 8

hours a day with co-workers, allowing a great deal of time to be spent communicating and forming relationships. Remote workers, however, engage with co-workers on a much more infrequent basis, especially in terms of informal communication, as previously stated. Therefore, remote workers may seek social support from peers outside of their organization to fulfill their emotional needs as outlined by Maslow (1943). This external social support may be sought from various sources including, but not limited to, family, friends or small groups, organizations, and social media. One's emotional need for belonging could thus be met through social media connections or a distant peer, to mitigate feelings of social isolation resulting from increased remote work and decreased informal communication with co-workers. Therefore, while there are varied perspectives on the amount of social connectedness an individual needs and numerous ways to achieve this sense of belonging, this study aims to improve the literature on external social support in response to organizational social isolation and its potential effects on organizational culture.

### **Rationale for Research**

As discussed, remote work was conducted prior to the pandemic but has recently become a readily available and widely accepted option in today's workplace. Although research has been conducted on the advantages and disadvantages of remote work for individuals, previous research does not address the magnitude of the changes occurring in the workplace. A lack of informal communication paired with increased social isolation can be detrimental to employee engagement, leading to decreased cohesion and poor organizational culture altogether. Therefore, this study seeks to examine the possible effects on organizational culture when remote workers meet their social needs through external sources, as there is a clear gap in the research.

Given this information, the following hypothesized relationships are warranted:

**H1:** Amount of remote work is positively associated with co-worker perceptions of social isolation and negatively associated with co-worker perceptions of social connectedness.

**RQ1:** Does amount of remote work affect individuals' social connectedness with co-workers, as moderated by externally met social needs?

**RQ2:** Does amount of remote work affect the organizational culture? How do remote workers categorize their organization's culture?

## CHAPTER THREE

### METHODS

#### **Participants**

For this study, participants had to be at least 18 years old, but there was not a specific age limit. This broad age group allowed for individuals to provide their own consent while ensuring persons of all ages had an equal opportunity to participate so results would be generalizable to a larger population. Participants had to be employed full time (40 hours per week) and had to have previous, or current, remote work experience of at least 3 months. This length of time ensured that if employees were new hires, they had adequate time to be assimilated into the organization and learn the values and norms of the organizational culture (Davis & Myers, 2019). Participants ( $N = 199$ ) were recruited through Amazon's Mechanical Turk (MTurk) online portal making it a nonprobability, volunteer response sample. Due to the nature of this study being completed online, participants were able to be located anywhere in the United States with internet access, which warranted a large number of possible participants.

#### **Procedures**

The collection of survey data was conducted using Qualtrics. The average duration of the survey was 6 minutes, and all surveys were completed in one sitting, including an overview of the study and confirmation of consent prior to beginning. Participants were allotted 20 minutes to complete the survey and their identity remained anonymous throughout the entire process. The measures covered information regarding participants' remote work practices (e.g., remote/co-location policy for all employees, number of days they work remotely each week, how long they have worked remotely, and where they complete remote work), their understanding of where their organization's culture falls within the Competing Values Framework (i.e., adhocracy, clan, market, or hierarchy culture), their level of informal communication with their co-workers, their perceived level of social isolation or social connectedness to their co-workers, and the amount and sources of external social support they seek to fulfil their need of belonging. Specific measures and analysis procedures are outlined in the following section.

## **Measures**

For this study, each participant completed a survey to describe their experience with remote work, their understanding of their organization's culture, how much informal communication they engage in with co-workers, how socially isolated or connected they feel to their co-workers, and any external sources of social support. Each section of the survey was measured on a different scale and analyzed as follows.

### ***Remote Work Practices***

For this portion of the survey, each participant responded to four measures to gather data on the details of their remote work practices. The first three measures were developed by the researcher for the purpose of this study, while the last measure utilizes categories outlined in previous research. The first item determined the remote work policy for the participant's organization with possible responses to describe their work being either "fully remote", indicating they work remote permanently and do not go into a co-located office on a regular basis, or "hybrid remote", indicating they work partially remote with the possibility or requirement to go into a co-located office throughout the week. If participants indicated they work in a "hybrid" organization, they completed the second measure which asks the average number of days they spend working remotely with response categories ranging from 1 to 5 days per week. The next item ascertained how long each participant has worked remotely, with response categories including the number of years (0 to more than 2) and months (0 to 12). Finally, the participant completed an item describing where they complete most of their remote work, using the categories outlined by Olson (1983). The response categories included "Neighborhood Work Centers" in which employees from different organizations share space and equipment in work centers close to their homes (e.g., co-working offices), "Flexible Work Arrangements" in which employees have flexibility in location of work (e.g., coffee shop, library, any public location with internet access), or "Work-at-Home" indicating the employee works from their home (e.g., home office, kitchen table, couch, etc.). The results from these measures allowed the researcher to determine the organization's remote work policy, how long each participant has worked remotely, the amount of remote work they engage in per week, and what their preferred remote work environment may be (Appendix A).



### ***Organizational Culture***

For the second portion of the survey, each participant responded to Cameron and Quinn's (2011) Organizational Culture Assessment Instrument (OCAI). To complete this measure, participants were presented with six aspects of culture (i.e., dominant characteristics, organizational leadership, management of employees, organization glue, strategic emphasis, and criteria of success) and were asked to divide 100 points over four statements for each aspect. Participants were instructed to "assign the most points to the statement that is most true, and the least or none to the statement that doesn't fit with their organization" (Cameron & Quinn, 2011). This measure determined which organizational culture from the Competing Values Framework most closely aligned with the participant's organization, as they perceive it (Appendix B).

### ***Informal Communication***

For the third portion of the survey, participants completed a measure based on an informal communication measure utilized in a study on informal communication in organizations (Koch & Denner, 2022). The dimensions included amount of informal communication, channel of informal communication (i.e., in person, computer-mediated), and function of informal communication (i.e., information, organization, integration, diversion/entertainment, and venting one's anger). Each dimension was rated on a 5-point Likert-type scale with response categories ranging from 1 (never) to 5 (always) or from 1 (strongly disagree) to 5 (strongly agree). Items included statements such as "Rate the extent to which you engage in Informal Communication in person", "Rate the extent to which you engage in computer-mediated Informal Communication", "Informal Communication provides me with information that helps me get my work done", "Informal Communication helps me integrate into the team", and "Informal Communication helps me vent my anger when something bothers me". This measure indicated the amount and type of informal communication each participant engages in with their co-workers (Appendix C).

### ***Social Connectedness***

For the fourth portion of the survey, participants completed the specific connectedness dimensions of the Social Connectedness measure with respect to their co-workers (van Bel et al, 2009). The dimensions included relationship salience, dissatisfaction with contact quality, shared

understandings, knowing each other's experiences, and feelings of closeness. Each dimension included three or four items on a 7-point Likert-type scale with response categories ranging from 1 (completely disagree) to 7 (completely agree). Items included statements such as "I often think of X", "I derive little satisfaction from my contact with X", "I feel on the same wavelength with X", "I often know what X thinks", and "I feel that X and I can communicate well with each other", in which "X" will be replaced with "my co-workers". This measure indicated the degree to which each participant feels socially isolated from, or connected to, their co-workers (Appendix D).

### ***External Social Support***

For the final portion of the survey, participants responded to a measure based on the "sources of support" utilized in a study on COVID-19-related support (Li et al., 2021). The sources developed in this specific study include family, friends or small groups, communities, organizations or institutions, and society as a whole. In this study, however, the researcher used family, friends or small groups, organizations (i.e., the organization the participant is employed at), and online connections (i.e., any digital platform that allows the participant to form connections with other people online such as social media, online gaming, etc.) as the sources of support. Each item was measured on a 5-point Likert-type scale with response categories ranging from 1 (no support) to 5 (immense support). This measure indicated the sources from which participants seek the greatest amount of social support (Appendix E).

### ***Demographic Information***

At the end of the actual measures, participants were asked to complete a final section of questions measuring demographic information. This information was completed at the end as it is information that should require little thought and should have been easy to complete when participants were fatigued. These measures included items such as gender, age, race, education level, marital status, and household income, and were close-ended questions in which participants chose one response for each item. These responses were used to collect information about the sample in order to better presume what population the results would be generalizable to (Appendix F).

## **Data Analysis**

The results from the surveys were analyzed using SPSS Statistics Software to provide numerical data about the information provided. Descriptive statistics were run for each study variable and are included in Appendix G. H1 was evaluated using two-tailed Bivariate Pearson Correlation tests. RQ1 was examined using regression analysis. RQ2 was examined making use of the general linear model statistic. These analyses sought to investigate whether any significant relationships exist between the study variables (i.e., amount of remote work, social connectedness, external social support, and organizational culture), specifically in determining the nature of the predicted relationships.

## CHAPTER FOUR

### RESULTS

This study sought to gain a better understanding on the effects of remote work on organizational culture. Quantitative research was conducted to determine the remote work practices, categorization of organizational culture, level of informal communication, level of perceived social connectedness, and level of external social support from various sources.

While there were 275 participants that completed the survey, only 199 ( $N = 199$ ) were deemed valid responses, as some responses were straight-lined, such as marking 7 for every item on Likert-scale questions that included reverse coded items.

The majority of the sample was male (63.8%), and the average age of participants was 34 years old (range = 19-62,  $SD = 9.49$ ). Participants in the sample primarily identified as Caucasian or White (67.3%), however the sample also included people who identified as Asian (18.1%), Black or African American (7.0%), and Hispanic or Latino (5.0%), American Indian or Alaska Native (2.0%), and Multiracial (0.5%). Lastly, most participants indicated an average household income of \$40,000-\$60,000 (28.1%) or \$60,000-\$80,000 (26.1%) with other responses listed in Table 1.7.

The average amount of remote work completed was 4.65 years (range = 0.33-25.83,  $SD = 3.78$ ) with most participants indicating that they work remotely 4 days per week (range = 1-5,  $M = 3.70$ ,  $SD = 1.07$ ). Most participants (92.5%) also indicated that had worked in a co-located office prior to working remotely. The average amount of informal communication was 3.77 (range = 1-5,  $SD = 0.89$ ) and social connectedness was an average of 5.33 on a Likert-type scale with responses ranging from 1 to 7 (range = 2.33-6.67,  $SD = 0.73$ ). Social support was rated on a Likert-type scale from 1 to 5 with a separate item for family (range = 1-5,  $M = 4.09$ ,  $SD = 0.87$ ), friends/small groups (range = 1-5,  $M = 3.98$ ,  $SD = 0.87$ ), online connections (range = 1-5,  $M = 3.83$ ,  $SD = 0.94$ ), and their organization (range = 1-5,  $M = 3.82$ ,  $SD = 0.90$ ). Additional descriptive statistics are listed in Appendix G.

For the first hypothesis, a Bivariate Correlation test was used to determine the relationship between amount of remote work and co-worker perceptions of social connectedness. There was little to no correlation between amount of remote work and co-worker perceptions of

social connectedness ( $r = -.043$ , ns). This finding did not support the original hypothesis that amount of remote work is positively associated with co-worker perceptions of social isolation and negatively associated with co-worker perceptions of social connectedness, indicating there is no clear relationship between the two variables.

For the first research question, correlation analysis was conducted to determine if externally met social needs moderated the relationship between amount of remote work and individuals' social connectedness with co-workers. There was no significant relationship among any of these variables (Appendix H), suggesting that the amount of remote work and externally met social needs are independent of individuals' perception of social connectedness with co-workers.

For the last research question, a mode test determined that remote workers most often categorized their organization as having a Clan culture (40.7%), followed by Hierarchy (20.6%), Market (18.6%), and Adhocracy (11.1%), with some participants' results indicating multiple organizational cultures (9%). Additionally, the general linear model statistic was used to determine if differences exist between organizational culture types and the amount of time spent working remotely. The results of the analysis revealed an F score of 1.57 ( $p < .183$ ). Thus, we cannot say with confidence that the perception of organizational culture type differed as a result of the amount of time spent working remotely.

## CHAPTER FIVE

### DISCUSSION

As previously mentioned, the purpose of this study was to determine if remote work has an effect on organizational culture. Specifically, surveys were completed to collect information on remote work practices, organizational culture, informal communication, level of perceived social connectedness, and level of external social support from various sources. This study drew on previous research and theories as outlined below.

The first hypothesis was written based on previous research by Hesse & Grantham (1991), who suggested that due to the limited social presence in computer mediated communication there was a loss of nonverbal communication when working remotely; and Klopotek (2017), who observed that young people, age 18 – 30, rated social isolation as the second most significant disadvantage of remote work even in the social media age where most people form online social networks through extensive computer-mediated communication. This implied that younger generations preferred face-to-face communication in the workplace and favored working together with their co-workers in a shared physical context. While participants in this study covered a broader age range (19 – 62), the average age was 35, not much older than the younger generation classification made by Klopotek. Based on the results of this study, however, the amount of remote work an employee engaged in did not have a significant effect on their amount of informal communication (Table 1.3) or their perception of social connectedness to their co-workers (Table 1.4) as the mean score for each of these scales was on the higher end of the range. There was also not a significant difference in social connectedness between employees who were co-located previously or had only worked remotely, suggesting organizational culture can still be created and maintained in remote work environments.

The first research question was written based on previous research by van Bel et al. (2009), who noted that social connectedness could be created on an organizational level, similar to group cohesion and culture, or on an individual level, allowing for a greater connection with a specific person (van Bel et al., 2009); and Maslow's (1943) hierarchy of needs which includes belongingness as a psychological need, just after basic needs which include physiological needs (e.g., food, water, warmth, rest) and safety needs (e.g., security, safety). It was thought that one's

emotional need for belonging could thus be met through external sources (i.e., friends, family, online/social media connections) to mitigate feelings of social isolation resulting from increased remote work and decreased informal communication with co-workers. This study, however, showed that although they were ranked the lowest, organizations were rated similarly in terms of how much social support participants received from them (Table 1.5). Therefore, even though remote workers are engaging in computer-mediated communication with their co-workers rather than face-to-face communication which may be more readily available in their friend and family relationships, they still receive an immense amount of support from their co-workers and organizations. This research question, in addition to the hypothesis, provides further evidence that remote work does not have a significant effect on organizational culture, specifically in terms of co-worker communication and interaction.

The second research question was written based on previous research by Wellman et al. (1996) whose study revealed there was a loss in co-worker communication, however communication increased in supervisor-subordinate relationships with more structured and formalized communication, and the organizational cultures defined by Cameron & Quinn (2011). Organizations that identify as having a clan culture have an internal focus with a preference for flexibility and discretion. These organizations are typically regarded as a “family” due to employees’ highly friendly nature and management’s focused efforts on employee well-being. Hierarchy cultures are defined as having an internal focus and favor stability and control, typically relying on formal policies and procedures. It was assumed that due to previous remote work studies indicating a lack of informal communication (Eriksson, 2021) and increased social isolation (van Zoonen et al., 2021) that organizational culture would be exacting and task-oriented to limit confusion. However, based on the results of this study, remote workers most often categorized their organization as having a clan culture (81%) rather than a hierarchy (41%) or other culture (Table 1.2). This implies that “family-like” organizational cultures can still be created and maintained through remote work.

These results are important to note for organizations that employ remote workers, or that are looking to implement more remote work, because the insignificant results of this study suggest that organizations can still have successful cultures and employees can still be socially connected even when not engaging in person. While the hypothesis and research questions were

not supported by the results, this lack of expected relationships actually provides a more positive outlook for the future of remote work.



## **CHAPTER FIVE**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **Conclusion**

In this study, the effect of remote work on social connectedness and organizational culture was explored and analyzed. The study looked into remote work practices, informal communication, social connectedness, external social support, and organizational culture. The study did not support the proposed hypothesis or research questions, but still provided valuable insight into the viable future of remote work.

As noted in previous literature, organizational culture consists of the “artifacts, values, and assumptions that emerge through the communicative interactions of organization members” (Keyton, 2011, p. 28). Culture is created by the founders and first employees of the company based on their vision, mission, and values but it is maintained and preserved by subsequent employees. Similar to family traditions, organizational culture is passed on from member to member and new norms or standards can be established as well. When we think of organizational culture, we mainly focus on in person interactions, however this study supports the notion that at least some aspects of an organization’s culture are independent of the channel through which organization members interact. Remote workers engage in online or computer mediated communication rather than typical face to face communication, but they still indicated having high amounts of informal communication and social connectedness with co-workers. Therefore, although this study did not support the proposed hypothesis or research questions, it provides valuable evidence that organizational culture can still be created and maintained through remote work practices that involve more computer mediated communication rather than face to face.

## **Recommendations**

There were several limitations to this study that should be noted. First, the only method of data collection was survey responses. While surveys are advantageous to obtain larger numbers of participants and to reach people in various locations, it is much easier for participants to respond based on inaccurate perceptions or personal desires, such that they may not be entirely aware of themselves or the situation. Or if they desire to make changes in their personal preferences or habits they may respond based on their ideal behaviors. Furthermore, it was difficult to recruit participants within the population of remote workers through MTurk as individuals usually complete MTurk surveys for income, so there may have been a limited number of individuals responding to surveys that were employed full time to gain data from. In addition to the small sample size of MTurk workers, multiple responses had to be discarded due to straight-lined responses in which participants selected the same answer for the entire measure, even when items were reverse-coded. This could possibly be combatted with snowball sampling in which initial survey participants share the study with trustworthy respondents, however the sample size may have remained relatively small. Second, observations would be an extremely valuable method of data collection to obtain more knowledge on the actual behavior and communication of remote workers and their coworkers. Remote workers could be sought out through remote work associations or organizations that include only verifiable remote workers. However, this would require extensive permission arrangements and would raise privacy concerns due to recording, or being present, in various locations, including organizations and participants' homes, to acquire a sample of data large enough to analyze. Additionally, future studies should take into consideration employees' socioeconomic status and how a lower status may inhibit the possibility to work remotely due to lack of technology or internet, increasing the

organization's responsibility to provide the employee with the appropriate resources, raising their financial commitment as well. Finally, the survey was conducted two years after changes were implemented due to the pandemic and most organizations had already completed their transition back to "normal" co-located office environments or enacted remote work policies. A timelier study to determine the effects of the impromptu shift to remote work would have been completed during the pandemic when remote workers were fairly adjusted to the new format of telecommuting but had not yet returned to the office or had their organizations introduce more permanent remote work policies. However, with a sizeable number of organizations claiming they will continue to allow employees to work from home on a partial, or full time, basis, this survey could be used in the future on a more reliable population, and a potential longitudinal study to determine the actual effects of remote work on organizational culture would provide both employees and organizations with a beneficial resource for remote work implications.

## REFERENCES

- Ahuja, M. K., & Galvin, J. E. (2003). Socialization in virtual groups. *Journal of Management*, 29(2), 161-185.
- Asatiani, A., Hämäläinen, J., Penttinen, E., & Rossi, M. (2021). Constructing continuity across the organisational culture boundary in a highly virtual work environment. *Information Systems Journal*, 31(1), 62-93.
- Bick, A., Blandin, A., & Mertens, K. (2020). Work from home after the COVID-19 Outbreak.
- Blanchard, A. L. (2021). The effects of COVID-19 on virtual working within online groups. *Group Processes & Intergroup Relations*, 24(2), 290–296.  
<https://doi.org/10.1177/1368430220983446>
- Brenan, M. (2020, October 13). COVID-19 and Remote Work: An Update. GALLUP.  
<https://news.gallup.com/poll/321800/covid-remote-work-update.aspx>
- Cameron, K. S., & Quinn, R. E. (2011). Diagnosing and changing organizational culture: Based on the competing values framework. John Wiley & Sons.
- Charalampous, M., Grant, C. A., Tramontano, C., & Michailidis, E. (2019). Systematically reviewing remote e-workers' well-being at work: A multidimensional approach. *European Journal of Work and Organizational Psychology*, 28(1), 51-73.
- Davis, C. W., & Myers, K. K. (2019). Past work experience and organizational assimilation in nonprofit organizations. *Nonprofit Management and Leadership*, 29(4), 569-588.
- Di Martino, V., & Wirth, L. (1990). Telework: A new way of working and living. *Int'l Lab. Rev.*, 129, 529.
- Ellison, N. B. (1999). Social impacts: New perspectives on telework. *Social science computer review*, 17(3), 338-356.

- Eriksson, L., & Santesson, H. (2021). Organizational Culture in a Remote Setting: A Qualitative Study on Organizational Culture and the Effects of Remote Work.
- Gardner, W. L., Reithel, B. J., Foley, R. T., Coglisier, C. C., & Walumbwa, F. O. (2009). Attraction to organizational culture profiles: Effects of realistic recruitment and vertical and horizontal individualism—collectivism. *Management Communication Quarterly*, 22(3), 437-472.
- Hesse, B. W., & Grantham, C. E. (1991). Electronically distributed work communities: implications for research on telework. *Internet Research*.
- Holmes, J., & Marra, M. (2004). Relational practice in the workplace: women's talk or gendered discourse?. *Language in society*, 377-398.
- Johnson, M. O., & Suskewicz, J. (2020). Does your company have a long-term plan for remote work. *Harvard Business Review Web site [Internet]*.
- Joice, W. (2000). The evolution of telework in the federal government.
- Keyton J. 2011. *Communication and Organizational Culture: A Key to Understanding Work Experiences*. Thousand Oaks, CA: Sage. 2nd ed.
- Klopotek, M. (2017). The advantages and disadvantages of remote working from the perspective of young employees. *Organizacja i Zarządzanie: kwartalnik naukowy*.
- Koch, T., & Denner, N. (2022). Informal communication in organizations: work time wasted at the water-cooler or crucial exchange among co-workers?. *Corporate Communications: An International Journal*.
- Larson, B. Z., Vroman, S. R., & Makarius, E. E. (2020). A guide to managing your (newly) remote workers. *Harvard Business Review*, 18.

- Li, F., Luo, S., Mu, W., Li, Y., Ye, L., Zheng, X., ... & Chen, X. (2021). Effects of sources of social support and resilience on the mental health of different age groups during the COVID-19 pandemic. *BMC psychiatry*, 21(1), 1-14.
- Licklider, J. C., & Veza, A. (1978). Applications of information networks. *Proceedings of the IEEE*, 66(11), 1330-1346.
- Madsen, S. R. (2011). The Benefits, Challenges, and Implications of Teleworking: A Literature Review. *Culture & Religion Review Journal*, 2011(1).
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-96.
- Olson, M. H. (1983). Remote office work: changing work patterns in space and time. *Communications of the ACM*, 26(3), 182-187.
- Ozimek, A. (2020). The future of remote work. Available at SSRN 3638597.
- Ozimek, A. (2021). Future workforce report 2021: How Remote Work is Changing Businesses Forever. Upwork. Retrieved from <https://www.upwork.com/research/future-workforce-report>.
- Rai, A. (2020). Editor's comments: The COVID-19 pandemic: Building resilience with IS research. *Management Information Systems Quarterly*, 44(2), iii-vii.
- Rogers, E. (2003). *Diffusion of Innovations*. Fifth edition. Free Press: New York.
- Schein, E. H. (1985). *Organizational culture and leadership* San Francisco. San Francisco: Jossey-Bass.
- Schein, E. H. (1990). Organizational culture (Vol. 45, No. 2, p. 109). *American Psychological Association*.

- Sewell, G., & Taskin, L. (2015). Out of sight, out of mind in a new world of work? Autonomy, control, and spatiotemporal scaling in telework. *Organization Studies*, 36(11), 1507-1529.
- Thokozani, S. B. M., & Maseko, B. (2017). Strong vs. weak organizational culture: Assessing the impact on employee motivation. *Arabian Journal of Business and Management Review*, 7(1), 2-5.
- Tietze, S., & Nadin, S. (2011). The psychological contract and the transition from office-based to home-based work. *Human Resource Management Journal*, 21(3), 318-334.
- Tracy, K. (2002), *Everyday Talk*, The Guilford Press, New York, NY.
- Van Bel, D. T., Smolders, K. C. H. J., IJsselsteijn, W. A., & de Kort, Y. (2009). Social connectedness: concept and measurement. *Intelligent Environments*, 2, 67-74.
- van Zoonen, W., Sivunen, A., Blomqvist, K., Olsson, T., Ropponen, A., Henttonen, K., & Vartiainen, M. (2021). Factors influencing adjustment to remote work: Employees' initial responses to the covid-19 pandemic. *International Journal of Environmental Research and Public Health*, 18(13), 6966.
- Waldron, V. R. (2003). Relationship maintenance in organizational settings. *Maintaining relationships through communication: Relational, contextual, and cultural variations*, 163-184.
- Warrick, D. D. (2017). What leaders need to know about organizational culture. *Business Horizons*, 60(3), 395-404.
- Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M., & Haythornthwaite, C. (1996). Computer networks as social networks: Collaborative work, telework, and virtual community. *Annual review of sociology*, 22(1), 213-238.

## APPENDICES

### Appendix A

Please respond to the following section in regard to your current job.

1. Do you work full time?
  - a. Yes
  - b. No
2. How long have you worked remotely?
  - a. \_\_\_\_\_ year(s)
  - b. \_\_\_\_\_ month(s)
3. Have you completed at least 3 consecutive months of remote work at the same organization?
  - a. Yes
  - b. No
4. Did you work in a co-located office (employees are in the same physical office location) before working remote at this organization?
  - a. Yes, I worked at a co-located office before working remote for this organization.
  - b. No, I've only worked remote for this organization.
5. What is your organization's current remote work policy?
  - a. Fully remote (Employees work remote permanently and do not go into a co-located office on a regular basis)
  - b. Hybrid remote (Employees work partially remote with the possibility or requirement to go into a co-located office throughout the week)
6. On average, how many days per week do you currently spend working remotely?
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5
7. Where do you usually complete your remote work?
  - a. Neighborhood work center (e.g., co-working offices)
  - b. Flexible work arrangements (e.g., coffee shop, library, any public location with internet access)
  - c. Work at home (e.g., home office, kitchen table, couch, etc.)



## Appendix B

Complete the following section based on your experience in your current organization. For each aspect, divide 100 points over the four statements. Assign the most points to the statement that is most true, and the least or none to the statement that doesn't fit with your organization.

### EXAMPLE: Dominant Characteristics

1. 60 The organization is a very personal place. It is like an extended family. People seem to share a lot of personal information and features.
2. 0 The organization is a very dynamic entrepreneurial place. People are willing to stick out their necks and take risks.
3. 10 The organization is very result oriented. A major concern is getting the job done. People are very competitive and achievement oriented.
4. 30 The organization is a very controlled and structured place. Formal procedures generally govern what people do.

#### I. Dominant Characteristics

1. \_\_\_\_\_ The organization is a very personal place. It is like an extended family. People seem to share a lot of personal information and features.
2. \_\_\_\_\_ The organization is a very dynamic entrepreneurial place. People are willing to stick out their necks and take risks.
3. \_\_\_\_\_ The organization is very result oriented. A major concern is getting the job done. People are very competitive and achievement oriented.
4. \_\_\_\_\_ The organization is a very controlled and structured place. Formal procedures generally govern what people do.

#### II. Organizational Leadership

1. \_\_\_\_\_ The leadership in the organization is generally considered to exemplify mentoring, facilitating, or nurturing.
2. \_\_\_\_\_ The leadership in the organization is generally considered to exemplify entrepreneurship, innovation, or risk taking.
3. \_\_\_\_\_ The leadership in the organization is generally considered to exemplify a no-nonsense, aggressive, results-oriented focus.
4. \_\_\_\_\_ The leadership in the organization is generally considered to exemplify coordinating, organizing, or smooth-running efficiency.

#### III. Management of Employees

1. \_\_\_\_\_ The management style in the organization is characterized by teamwork, consensus, and participation.
2. \_\_\_\_\_ The management style in the organization is characterized by individual risk taking, innovation, freedom, and uniqueness.
3. \_\_\_\_\_ The management style in the organization is characterized by hard-driving competitiveness, high demands, and achievement.
4. \_\_\_\_\_ The management style in the organization is characterized by security of employment, conformity, predictability, and stability in relationships.

IV. Organization Glue

1. \_\_\_\_ The glue that holds the organization together is loyalty and mutual trust. Commitment to this organization runs high.
2. \_\_\_\_ The glue that holds the organization together is commitment to innovation and development. There is an emphasis on being on the cutting edge.
3. \_\_\_\_ The glue that holds the organization together is an emphasis on achievement and goal accomplishment. Aggressiveness and winning are common themes.
4. \_\_\_\_ The glue that holds the organization together is formal rules and policies. Maintaining a smooth-running organization is important.

V. Strategic Emphases

1. \_\_\_\_ The organization emphasizes human development. High trust, openness, and participation persist.
2. \_\_\_\_ The organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.
3. \_\_\_\_ The organization emphasizes competitive actions and achievement. Attaining targets and winning in the marketplace are dominant.
4. \_\_\_\_ The organization emphasizes permanence and stability. Efficiency, control and smooth operations are important.

VI. Criteria of Success

1. \_\_\_\_ The organization defines success on the basis of development of human resources, teamwork, employee commitment, and concern for people.
2. \_\_\_\_ The organization defines success on the basis of having the most unique or newest products. It is a product leader and innovator.
3. \_\_\_\_ The organization defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.
4. \_\_\_\_ The organization defines success on the basis of efficiency. Dependable delivery, smooth scheduling and low-cost production are critical.

## Appendix C

For the following section, Informal Communication refers to communication with people in your organization (i.e., colleagues or superiors) and not with people outside your organization (i.e., customers or suppliers, friends, family). Formal Communication serves to fulfill work-related tasks in which the conversation is about providing or requesting expertise or knowledge from co-workers (i.e., meetings, work instructions, team meetings and training sessions), whereas informal communication does not focus on achieving work-relevant goals. Informal Communication can include conversations about private topics, such as hobbies or family, joking, comforting or being comforted, getting to know each other, and telling or listening to stories, but also may be about work-related things such as colleagues, company parties, or other events, but it is not relevant to completing work. Informal Communication may also occur in corridors, coffee break rooms, or through chat, telephone, or email.

Please rate the following in regard to your Informal Communication with your co-workers on a scale from 1 (rarely) to 5 (frequently).

	1	2	3	4	5
Rate the extent to which you engage in Informal Communication with your co-workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rate the extent to which you engage in Informal Communication in person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rate the extent to which you engage in computer-mediated IC (i.e., chat, telephone, email).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please rate the following in regard to your Informal Communication with your co-workers on a scale from 1 (strongly disagree) to 5 (strongly agree).

	1	2	3	4	5
Informal Communication provides me with information that helps me get my work done.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informal Communication helps me organize my daily work routine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informal Communication helps me integrate into the team.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informal Communication serves as a diversion from my work tasks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informal Communication helps me vent my anger when something bothers me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I consider Informal Communication to be useful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Appendix D

Please rate the following statements in regard to your relationship with your co-workers on a scale from 1 (completely disagree) to 7 (completely agree).

	1	2	3	4	5	6	7
Aside from our contact, I often feel "together" with my co-workers somehow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often think of my co-workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Even when we are not in each others' company, I often feel "together" with my co-workers somehow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am often aware of my relationship with my co-workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I derive little satisfaction from my contact with my co-workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that my co-workers do not understand me well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My contact with my co-workers feels superficial.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that my co-workers share my interests and ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel I have a lot in common with my co-workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel on the same wavelength with my co-workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often know what my co-workers feel.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often know what my co-workers think.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that my co-workers often know what I think.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I sense that my co-workers often know what I feel.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In comparison with all your other relationships (with other social sources), how close is your relationship with your co-workers? (1 = Not strong at all; 7 = Very strong)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In comparison with what you know of the relationships of other people (with their co-workers), how close is your relationship with your co-workers? (1 = Not strong at all; 7 = Very strong)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel I can talk about anything with my co-workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that my co-workers and I can communicate well with each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix E

Please rate the following sources of social support on a scale from 1 (no support) to 5 (immense support).

	1	2	3	4	5
Family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friends or small groups (in-person)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organizations (specifically your place of employment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online connections (any digital platform that allows you to create connections with other people; e.g., social media, online gaming, online groups, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix F

1. Please indicate your gender.
  - a. Male
  - b. Female
  - c. Prefer not to say
2. Please indicate your age.
  - a. [Textbox]
3. Please indicate your race.
  - a. Hispanic or Latino
  - b. American Indian or Alaska Native
  - c. Asian
  - d. Black or African American
  - e. Native Hawaiian or Other Pacific Islander
  - f. Caucasian or White
  - g. Multiracial
  - h. Other
  - i. Prefer not to say
4. Please indicate your education level.
  - a. High school
  - b. Some college
  - c. Trade/vocational/technical
  - d. Associates
  - e. Bachelors
  - f. Masters
  - g. Professional
  - h. Doctorate
  - i. Prefer not to say
5. Please indicate your marital status.
  - a. Single or never married
  - b. Married
  - c. Separated
  - d. Divorced
  - e. Widowed
  - f. Prefer not to say
6. Please indicate your household income.
  - a. Less than \$19,999
  - b. \$20,000 to \$39,999
  - c. \$40,000 to \$59,999
  - d. \$60,000 to \$79,999
  - e. \$80,000 to \$99,999
  - f. \$100,000 to \$119,999
  - g. \$120,000 to \$139,999
  - h. \$140,000 to \$159,999
  - i. \$160,000 to \$179,999

- j. \$180,000 to \$199,999
- k. Above \$200,000
- l. Prefer not to say

## Appendix G

Table 1.1. Remote Work Practices

	<b>Range</b>	<b><i>M</i></b>	<b><i>SD</i></b>
Time (Years)	0.33 – 25.83	4.65	3.78
Days/Week	1 – 5	3.70	1.07

Table 1.2. Co-Located Prior to Remote Work

	<b><i>n</i></b>	<b>%</b>
Yes	184	92.5
No	15	7.5

Table 1.3. Organizational Culture

	<b><i>n</i></b>	<b>%</b>
Adhocracy	22	11.1
Clan	81	40.7
Hierarchy	41	20.6
Market	37	18.6
Mixed	18	9.0

Table 1.4. Informal Communication

	<b>Range</b>	<b><i>M</i></b>	<b><i>SD</i></b>
Amount of IC	1 – 5	3.77	0.89
In-person IC	1 – 5	3.73	1.00
Computer-mediated IC	1 – 5	3.89	0.95

Table 1.5. Social Connectedness

	<b>Range</b>	<b><i>M</i></b>	<b><i>SD</i></b>
Social Connectedness	2.33 – 6.67	5.33	0.73

Table 1.6. External Social Support

	<b>Range</b>	<b><i>M</i></b>	<b><i>SD</i></b>
Family	1 – 5	4.09	0.87
Friends	1 – 5	3.98	0.87
Online/Social Media	1 – 5	3.83	0.94
Organization	1 – 5	3.82	0.90

Table 1.7. Age

	<b>Range</b>	<b><i>M</i></b>	<b><i>SD</i></b>
Age	19 – 62	33.95	9.49



Table 1.8. Gender

	<i>n</i>	%
Female	72	36.2
Male	127	63.8

Table 1.9. Race

	<i>n</i>	%
American Indian or Alaska Native	4	2.0
Asian	36	18.1
Black or African American	14	7.0
Caucasian or White	134	67.3
Hispanic or Latino	10	5.0
Multiracial	1	0.5

Table 1.10. Education Level

	<i>n</i>	%
High School	8	4.0
Some College	4	2.0
Associates	3	1.5
Bachelors	151	75.9
Masters	30	15.1
Professional	2	1.0
Doctorate	1	0.5

Table 1.11. Household Income

	<i>n</i>	%
Under \$20,000	10	5.0
\$20,000 – \$40,000	16	8.0
\$40,000 – \$60,000	56	28.1
\$60,000 – \$80,000	52	26.1
\$80,000 – \$100,000	29	14.6
\$120,000 – \$140,000	11	5.5
\$140,000 – \$160,000	12	6.0
\$160,000 – \$180,000	4	2.0
\$180,000 – \$200,000	0	0.0
Over \$200,000	3	1.5

## Appendix H

Table 1.12. Correlation Analysis

		Days/Week	Social Connectedness	Social Support - Family	Social Support - Friends/Small Groups	Social Support - Online	Social Support - Organization
Days/Week	Pearson Correlation	1	-0.043	-0.060	-0.088	0.006	0.108
	Sig. (2-tailed)		0.545	0.402	0.216	0.931	0.128
	N	199	199	199	199	199	199
Social Connectedness	Pearson Correlation	-0.043	1	.479**	.511**	.445**	.548**
	Sig. (2-tailed)	0.545		0.000	0.000	0.000	0.000
	N	199	199	199	199	199	199
Social Support - Family	Pearson Correlation	-0.060	.479**	1	.303**	.166*	.297**
	Sig. (2-tailed)	0.402	0.000		0.000	0.019	0.000
	N	199	199	199	199	199	199
Social Support - Friends/Small Groups	Pearson Correlation	-0.088	.511**	.303**	1	.250**	.169*
	Sig. (2-tailed)	0.216	0.000	0.000		0.000	0.017
	N	199	199	199	199	199	199
Social Support - Online	Pearson Correlation	0.006	.445**	.166*	.250**	1	.378**
	Sig. (2-tailed)	0.931	0.000	0.019	0.000		0.000
	N	199	199	199	199	199	199
Social Support - Organization	Pearson Correlation	0.108	.548**	.297**	.169*	.378**	1
	Sig. (2-tailed)	0.128	0.000	0.000	0.017	0.000	
	N	199	199	199	199	199	199

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## VITA

Katherine F. Rogers was born in Fall River, Massachusetts on April 30, 1997. She attended schools in the Plymouth School District and graduated from Plymouth South High School with high honors and in the top 10 of her class in June 2015. Katherine began her college career at Indiana University Purdue University Indianapolis in August 2015 but transferred to the University of Tennessee in Knoxville the following year. Here, she completed her Bachelor of Arts degree in Communication Studies graduating in the top 5 of her class in December 2019. She then decided to continue her education and entered graduate school at the University of Tennessee in August 2020. She completed coursework in interpersonal, group, and organizational communication, however she focused her studies and her interests in organizations. Throughout her Master's program, Katherine assisted as a Teaching Assistant for an introductory Communication Studies course her first year and taught Public Speaking the second. After 2 years of coursework and a study abroad trip to delve into intercultural communication, she completed her Master of Science degree in Communication and Information with a focus on remote work and organizational culture in August 2022. Her experience as a graduate student and her interest in data has led her to begin a career in data visualization while continuing to teach Public Speaking.