

**UNDERSTANDING COMMUNICATION USED TO ENGAGE VIRTUAL EMPLOYEES  
BY INTROVERTED PROJECT MANAGEMENT LEADERS**

Doctoral Dissertation Research

Submitted to the Graduate Faculty of

School of Business & Leadership

University of Charleston

In Partial Fulfillment

of the Requirements for the Degree of

Doctor of Executive Leadership

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AUG 2024

(Signature Page)

## ABSTRACT

This study was an interpretative phenomenological analysis (IPA) of eight introverted Project Management Leaders (PMLs), each of whom have led teams in Virtual Work Environments (VWEs) for multiple years, to explore their communication strategies and employee engagement techniques. A series of in-depth, semi-structured, qualitative interviews were conducted via Zoom with these leaders, who shared their experiences of adapting to virtual leadership and reflected on how these experiences shaped their communication approaches in VWEs.

IPA research methodology was then used to discover how these PMLs viewed their experiences. By analyzing the interview data, emergent themes were isolated to express the "essence" of the phenomenon. The emergent themes included: (a) strength and comfortability with electronic communication, (b) importance of fostering personal connections, (c) adaptability to match the virtual environment, (d) use of structured meeting agendas, (e) preference for written communication, and (f) diverse approaches to measuring employee engagement.

Some of the possible implications for the leadership discipline include: a qualitative understanding of how introverted leaders adapt their communication styles in VWEs; the association between introverted tendencies and effective virtual leadership strategies; the generalization of research data within the context of project management in virtual settings; and using the IPA research methodology to understand the essence of introverted leadership communication in VWEs.

*Keywords:* Introversion, extraversion, communication strategies, leadership communication, virtual teams, remote work, employee engagement, and project management.

## DEDICATION

To the introverted project management leaders of the world who struggle to find ways to communicate and engage their virtual teams. Your leadership is appreciated and essential to the project management community.

## ACKNOWLEDGMENTS

Thank you to my loving spouse, Joey Milam, for your unwavering love, support, and personal sacrifices throughout this academic pursuit. Your constant support has been unmeasurable.

Dr. Kristen Dugan, my dissertation chair and mentor, I am profoundly thankful for your guidance through this complex process. Your insights, motivation, and mentorship have been immeasurably valuable.

To my dissertation committee members, Dr. Doug White, Dr. Curt Wanner, and the soon-to-be Dr. Nizhonlii Robinson, I am grateful for your enthusiasm and expert contributions to this research.

To my unofficial mentor Jaime Rogowski Russell, thank you for the “Lunch & Learns” that gave me the opportunity to get guidance from another seasoned professional.

My fellow doctoral students, thank you for sharing this journey with me and transforming it into an enjoyable experience rather than a mere endurance test.

I extend my gratitude to all the professors, faculty members, and colleagues who have shaped my professional development over the years.

Dr. Andree Koehler, I am grateful for your time and support in helping with my field testing, additional literature for this research topic, and guidance through my qualitative coding.

To the study participants, I am deeply appreciative of your willingness to share your experiences. Your openness, trust, and insights are unmeasurable.

Finally, I offer special thanks to “The Clique”: Lonnie Bryson, Melissa Ferraro, Nizhonlii Robinson, and Carrie Summers, who welcomed me into their circle and protected me with laughter, support, and love throughout this process.

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## **CHAPTER 1: INTRODUCTION TO THE STUDY**

This dissertation examines introverted Project Management Leaders' (PML) communication to engage employees in a virtual work environment. The introductory chapter provides an overview of the background, problem statement, purpose, research questions, theoretical foundation, nature of the study, definitions, assumptions, scope and delimitations, limitations, and significance of the study.

### **Background of the Study**

Virtual work environments (VWE) have become increasingly prevalent, especially since the onset of the COVID-19 pandemic, which forced many organizations to shift from traditional office spaces to remote work arrangements (Al Dilby & Farmanesh, 2023). This transition has presented unique challenges for managers, especially introverts, who must adapt their leadership styles and their communication to engage and motivate employees they no longer see face-to-face (Bailey & Kurland, 2002). While existing research has explored leadership styles such as transformational leadership in virtual settings (Hoch & Kozlowski, 2014), few studies have examined how introverted leaders adapt their communication strategies for virtual employee engagement. This study aims to address that gap by qualitatively exploring introverted PMLs' communication within VWEs.

Leadership communication is critical to employee engagement, productivity, and organizational success (Barrett, 2006). However, most research on leadership communication focuses on bold, charismatic, extroverted styles. Far less attention has been paid to introverted leadership communication patterns despite estimates that 40-50% of executives exhibit introverted tendencies (Laney, 2002; Nobel, 2010). Introverted PMLs are motivated by internal reflection and tend to communicate through focused listening, individual conversations, and

asynchronous written communication (Grant et al., 2011). Preliminary studies suggest that when applied intentionally, these introverted communication tactics can also foster key outcomes like engagement, satisfaction, and performance (Kahnweiler, 2018).

Additionally, contemporary shifts to remote and VWEs may lend advantages to introverted communication that excel with asynchronous, written channels and personal rapport building (Madlock, 2008). When researching the relationships between the communication of introverted leaders, employee engagement, and VWEs, the literature found has limited information on the subject. Most available introverted leadership studies rely on self-reports rather than directly observed communication. Research calls for more investigation into moderators that influence the helpfulness of introverted leadership virtually in VWEs and interactions that are conducted in a virtual or digital context, as opposed to physical or face-to-face settings (Grant et al., 2011). This dissertation will address these gaps through a qualitative interpretive phenomenological analysis (IPA) method of research on introverted PMLs' communication patterns and their impact on employee engagement across varying levels of virtual work.

Introversion, as defined by the Myers-Briggs Type Indicator (MBTI), describes individuals who are more reserved, reflective, and often prefer solitary activities, as opposed to extroverts who are more outgoing and expressive (Myers, 1998). Leadership in the corporate world has often favored extroverted qualities, such as assertiveness and sociability (Grant et al., 2011). However, introverts possess unique strengths, including deep thinking, listening, and the ability to work independently, with qualities that can be especially beneficial in VWEs (Cain, 2013). Research by Zárata-Torres and Correa (2023) evaluated the Myers-Briggs Type Indicator as a predictor of leadership behaviors using the Leadership Practices Inventory. Their findings

showed statistically significant, though weak, correlations between the MBTI personality oppositions and leadership practices. Specifically, they found the extraversion-introversion opposition was related to the leadership practices of inspiring a shared vision and encouraging the heart, suggesting extroverts performed better in these areas. The intuitive versus sensing oppositions also correlated with challenging processes and inspiring vision, with intuitive personality types rating higher. While extroverts emerged as stronger leaders overall, certain leadership skills aligned more closely with introverts' reflective qualities.

While leadership has tended to favor qualities aligned with extroversion, supportive leadership also requires clear communication tailored to one's team. In order to ensure that deliverables and deadlines are completed and the project meets established timeframes, communication is essential in project administration. The PML plays a pivotal role in guiding efforts and providing direction to keep tasks on track. PML's must clearly communicate expectations, comments, and direction to team members. Extroverted supervisors may utilize more direct, verbal means like virtual meetings, open-ended discussions, and frequent check-ins. However, introverted managers often have a more reserved and reflective approach to communication and supervision. Gaining insight into introverted leadership could reveal alternative means of effective guidance that align with these personalities' innate strengths.

While there's a body of literature on leadership styles, VWEs, and introversion separately, there's a gap concerning how introverted PMLs engage their teams in virtual settings. Most of the current literature on executive leadership, particularly in VWEs, is based on the traditional extroverted leadership paradigm. This paradigm assumes supportive leaders are gregarious, assertive, action-oriented individuals who motivate teams through high-energy group interactions like brainstorming sessions, team-building retreats, and celebratory events. It

highlights qualities aligned with extroversion, such as charisma, high sociability, and verbal fluency, as prerequisites for successful leadership. Though introverts may struggle with prolonged or large group interactions requiring constant outward enthusiasm, they excel in one-on-one communication geared toward relationship building. Their tendency for independent work may allow them to oversee complex projects requiring deep concentration without distraction. However, the strategies leveraged by introverted leaders often fall outside the bounds of this paradigm, resulting in critical research gaps concerning how they can support employees and teams, especially in virtual settings.

This study is relevant for several reasons. Making project management plans that are more effective and can accommodate a wider range of personalities and working styles requires understanding how various leadership styles operate and what they mean. It is important to understand specific details of different communication so that the success of projects remains successful as the increase of VWEs rapidly increases as the standard norm. The success and productivity of a business depend on how engaged the company's employees are. Introverts bring unique strengths, including patience, focus, and strong one-on-one relationship building that enable them to guide teams successfully. Their tendency for independent work may make them well-suited to oversee complex solo projects requiring deep concentration without distraction. Introverts leverage more intimate communication tools like email, written feedback, and focused conversations to connect with team members in lieu of high-energy group meetings. Their slower, more measured way of processing before acting can also grant them insight their extroverted colleagues may overlook. Examining cases where reflective, introverted leaders excel, specifically in dispersed virtual teams, can move us toward a more complete, less biased understanding of the full range of qualities and methods in the leadership toolkit. Rather than

force introverts to adopt an ill-fitting extroverted leadership style, organizations can structure roles and communication channels to allow them to capitalize on their natural talents as influencers.

### **Problem Statement**

The shift to remote work during the COVID-19 pandemic requires leaders, especially introverts, to adapt their communication and employee engagement strategies to virtual settings (Kniffin et al., 2020). However, research has not yet explored the specific communication introverted leaders use to foster employee engagement in VWEs. Understanding introverted leaders' communication strategies could provide practical insights to enhance virtual employee engagement, performance, and satisfaction.

While emerging research suggests introverted leadership communication tactics like written expression (researchers Susan Cain, Adam Grant, Francesca Gino, and David Hofmann), listening (researchers Deborah Barrett, Cristina Gibson, and Jennifer Gibbs), and one-on-one conversations (researchers Radostina Purvanova, Guido Hertel, and Susanne Geister) facilitate employee outcomes, significant gaps remain in directly examining how introverted leaders' communication behaviors relate to employee engagement, especially in VWEs (Madlock, 2008). This lack of observational research represents a barrier to fully leveraging introverted communication strengths for engaging today's workforce in person and virtually.

### **Purpose of the Study**

The goal of this qualitative study is to describe, explain, and examine the link between how introverted PMLs communicate with their employees and how engaged those employees are in VWEs. An exploratory sequential design will be utilized. First, interview data will be leveraged to categorize the communication by introverted leaders used to interact with staff in

dispersed teams. The research will then quantitatively investigate how the frequency of certain contact types made by introverted supervisors affects results on standardized employee engagement assessments. Particular interest lies in how reflective, introverted PMLs rely on written forms, listening-focused conversations, and one-on-one meetings to direct staff collaboration and involvement across distances. With the growth of remote work, there remain critical gaps concerning what introverted leadership communication methods influence worker dedication and satisfaction. While extensive research addresses extroverted leadership strategies, this study will address the need for insights into how introverts' innate skill sets allow them to effectively manage, motivate, and connect with virtual team members. Findings will have practical implications for positioning introverts for leadership success while leveraging their natural talents.

### **Research Questions**

This study seeks to answer the following research questions:

RQ1: What communication do introverted PMLs use to engage employees in a VWE?

RQ2: What communication strategies support employee engagement most under introverted virtual leaders?

### **Theoretical Foundation**

Daft and Lengel (1986) first introduced the concept of Media Richness Theory (MRT) in 1986. MRT proposes that different communication methods can present information cues in various ways. Virtual communication may present difficulties for individuals who greatly depend on detailed and profound relationships due to its limited depth compared to face-to-face conversation. Virtual communication methods like emails or messaging applications lack the

depth of face-to-face encounters, potentially impacting the clarity, immediacy, and subtleties of the message (Daft & Lengel, 1986).

Early in the 20th century, Carl Jung (1923) was the first to discuss introversion and extraversion. Study after study on business leadership and communication has shown that introverts and extroverts have different leadership theories and ways of communicating. Leaders who are more introverted tend to communicate in a more thoughtful, methodical, and reflective way. According to Cain (2013), when more direct and outward communication is needed, introverted leaders tend to do worse. This is because they do worse when staff members ask for help and come up with ideas (Cain, 2013). The VWE can either bring out or hide some traits of introverted leaders, depending on how it is set up and how people talk to each other.

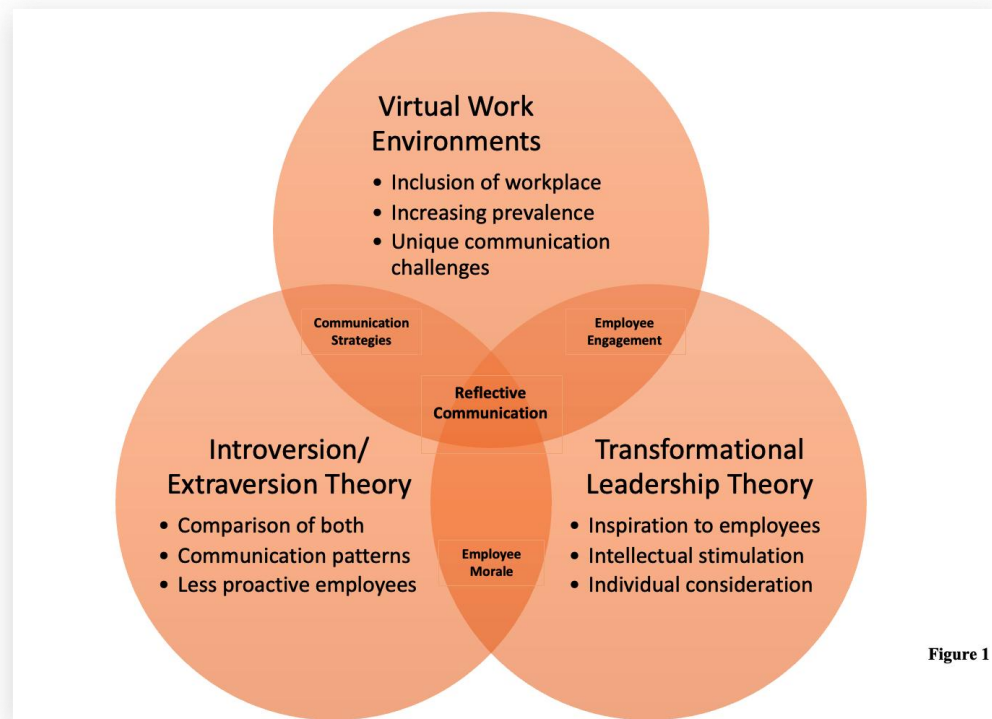
The lens of transformational leadership theory enables one to see the potential for introverted PMLs to encourage and inspire their team members. Charisma, inspiration, intellectual stimulation, and sensitivity to individual needs are characteristics of transformational leaders (Bryman et al., 2011). Because their communication is founded on reflection and deliberation, they may be able to use the elements of intellectual stimulation and individualized consideration to engage employees.

Understanding the communication preferences of introverted leaders is directly tied to the Introversion-Extraversion Theory in Leadership. This theory can be used to investigate the complexities of introverted leadership in VWEs.

### **Theoretical Framework**

The theoretical framework (Figure 1) demonstrates how certain elements in found literature explain how introverted PMLs interact with employees in virtual environments. Understanding the underlying theories enables the perception that introverted PMLs can engage

workers in VWEs by combining individualized consideration, intellectual stimulation, and reflective communication.



The study will combine both of these hypotheses to pinpoint the specific tactics used by introverted PMLs in the fast-increasing realm of VWEs. This theoretical underpinning supports the subsequent conceptual framework.

### **Conceptual Framework**

This dissertation's conceptual approach examines how introversion, communication strategies, project management, and VWEs are linked. This approach will guide the research by providing a structured way to discover what introverted PMLs might do and what problems they might encounter when trying to engage their teams to work together virtually.

The Myers-Briggs Type Indicator (MBTI) defines introversion as a personality feature where people are more introspective, internally focused, and frequently prefer one-on-one encounters over group situations (Myers, 1998). For introverts, these tendencies might be

characterized by deeper listening, written communication, and more structured interactions (Cain, 2013). Project management is the discipline of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals within specific constraints (Project Management Institute, 2017). A VWE is a professional setting where employees operate and communicate primarily through digital means without being co-located in a traditional office space (Bloom et al., 2015).

There are connections found with these variables. When comparing introversion with communication, research shows that introverts tend to favor written communication, structured meetings, and deep, focused discussions, which can be beneficial in VWEs where face-to-face cues are absent (Cain, 2013). Also, with project management in VWEs require unique strategies to ensure team coordination, clear communication, and task tracking, potentially leveraging digital tools and platforms (Bloom et al., 2015). Finally, when analyzing communication in virtual project management, there are ways in which PMLs' communication can influence project outcomes, especially in VWEs where misunderstandings can easily arise due to the lack of in-person interactions.

This framework fits with the study's main research question: "What communication do introverted project management leaders use to engage employees in a virtual work environment?" The goal of the study is to find out the special strengths and challenges of introverted leaders by looking at how introversion, communication, and virtual project management all work together.

Given the framework's focus on the relationship between introversion/extroversion and virtual communication preferences among project managers, survey instruments or interview questions should be carefully crafted (Costa & McCrae, 1992). Firstly, they should aim to assess

the self-identified introversion/extroversion spectrum of project management leaders (PMLs), likely through established personality assessments or direct self-report items. Secondly, the instruments need to gauge the frequency and preference of various communication methods employed by PMLs, such as videoconferencing, email, instant messaging, phone calls, and in-person interactions. This data will reveal any tendencies for introverted or extroverted individuals to favor particular channels. Thirdly, the questions must understand the perceived effectiveness of different communication in virtual project management scenarios from the PML's perspective. This could involve rating the suitability of communication approaches for tasks like conveying complex information, providing feedback, building team cohesion, negotiating with stakeholders, and more within distributed team environments (Costa & McCrae, 1992). By comprehensively evaluating these three elements, the research can map the interplay between leadership personality traits, virtual communication behaviors, and the ability to lead projects successfully in remote settings.

Qualitative data, especially from interviews, will be coded to identify common themes related to communication strategies, challenges, and successes. Quantitative survey data will be analyzed statistically to discern patterns in communication preferences and perceived outcomes in VWEs.

### **Nature of the Study**

This study will use an interpretive phenomenological analysis (IPA) method to get to the heart of what introverted PMLs use to communicate and work with their virtual employees. Creswell & Creswell (2017) say that phenomenology is useful when you want to explain how people see and make sense of a certain event in their lives.

The main thing that is looked at is how introverted PMLs deal with and change their natural communication to keep workers interested in remote work settings. Introversion shows up in quieter, more inwardly focused conversation strategies, which can be both good and bad in VWEs where there is no physical presence.

There will be in-depth, semi-structured interviews with eight to ten introverted PMLs from different companies. Participants will be asked about how they like to communicate, what challenges they face when working remotely, and what strategies they use to connect with workers who work from home.

The interview texts will be coded using the steps outlined by Moustakas (2009) to find important statements, their meanings, and the gist of what they say about how introverted people communicate in virtual teams. Phenomenology gives a lot of detailed information about how introverted leaders see and change their communication in order to lead well across technological platforms.

The interpretive phenomenological analysis is a good way to get to the heart of how shy people talk to each other in newer virtual work arrangements. Findings will show things about real life that can't be shown by numbers alone.

### **Definitions**

**Introvert:** A personality type often characterized by a preference for internal thoughts, feelings, and moods rather than seeking external stimulation. Introverts typically draw energy from solitude and may feel drained in extensive social situations (Cain, 2013).

**Virtual work environment (VWE):** A work setting where employees operate and communicate primarily through digital means, without a centralized physical office, leveraging

technologies such as teleconferencing, email, and collaboration platforms (Bailey & Kurland, 2002).

Employee engagement: An employee's cognitive, emotional, and behavioral connection to their work, organization, manager, and colleagues that influences their willingness to invest discretionary effort in their job (Kruse, 2012).

Asynchronous communication: Communication that occurs without real-time interaction, often involving delays between messages, such as email (Bordia, 1997).

Synchronous communication: Real-time communication that occurs with virtually no time-lapse, such as video conferences or chat messaging (Bordia, 1997).

Project Management Leader (PML): A person who leads or commands a group of individuals responsible for project aspects, including meeting deliverables and leading teams capable of meeting client expectations for their vision (Project Management Institute, 2017).

### **Assumptions**

Researchers and peers who read a journal piece, listen to a speech or read a book accept assumptions as true or at least plausible. The more clear the researcher is about what assumptions are being made, the more likely it is that the reader will agree with those assumptions (Leedy & Ormrod, 2016). Assumptions are the main building blocks of study.

PMLs who identify as an introvert is well aware of their own introverted features and is able to describe situations that relate to these characteristics, which is one of the most important presumptions for this study. Another one of the most important presumptions is that everyone who identifies as an introvert is able to discuss situations that relate to these characteristics. If people don't comprehend this, the outcomes could not be as expected.

The idea that some things remain the same across various organizational contexts is another one. This is true even when the virtual interaction tools and platforms vary. Even though there are many methods and platforms for virtual contact, it's crucial to presume that everyone has the same experience with virtual engagement so that more individuals can benefit from the outcomes. The research study is derived from the notion that there is a specific way that introverted PMLs communicate with their teams and improve engagement with their employees in VWEs. If there is no assumed link between what introverted PMLs use to communicate with their employees and how that affects their employee engagement, then the research loses validity.

Another assumption is that the participants being interviewed or surveyed will give honest and correct answers. As with most qualitative studies, the truth of the results depends a lot on how honest the participants were. Assuming honesty makes sure that the insights gained from introverted PMLs are based on their real experiences and points of view.

And the last assumption is that the VWEs has different challenges and possibilities than a physical work environment, which can change the way people talk to each other. Given our current emphasis on virtual worlds, it is necessary to assume the existence of various activities occurring within these environments.

### **Scope and Delimitations**

This study focuses specifically on introverted leaders in PML roles across diverse organizations. While introversion exists on a spectrum, the scope includes individuals who self-identify as fundamentally introverted. Other personality types and roles outside of project management are excluded from the study sample.

The research emphasizes introverted communication for the specific aim of employee engagement. While there are many potential outcomes of leadership communication, employee engagement was selected as the key variable of interest to narrow the scope. Outcomes such as team cohesion, job satisfaction, and turnover are not addressed.

Virtuality serves as a key variable of interest, with all participants having experience leading in predominantly VWEs. Traditional face-to-face leadership contexts are excluded. Comparing communication across different degrees of virtuality provides potential insights rather than limiting the scope to fully remote environments only.

While various leadership theories could inform introverted communication, Jung's psychological types and media richness theories were chosen as the primary frameworks due to their focus on communication differences and channel selection. The findings may only be transferable to introverted leaders in similar virtual management roles rather than all introverts or all leaders. The study excludes its findings from anyone who is not an introverted leader. But the way the research was set up and how the interviews were done could help other studies of quiet leadership.

### **Limitations**

This study is limited by its small qualitative sample size of eight to ten introverted PMLs. The limited number of participants prevents the broad generalizability of the findings. However, the in-depth interview design provides rich insights that quantitative surveys could not achieve.

The study is also limited to participants' self-reported behaviors and perspectives, which rely on the assumption of honesty. Self-reported data has reliability limitations compared to direct observation. However, interviews allow for capturing complex phenomena that are difficult to observe directly.

As a qualitative study, the findings have limited transferability to wider populations beyond the sample. The specific insights may not necessarily apply to introverted PMLs in other roles, industries, or demographics. Additional quantitative research is needed to generalize patterns more broadly.

Researcher bias during interviews and qualitative analysis presents an inherent limitation to confirmability. However, this was mitigated through field notes, transcript review, and seeking conflicting perspectives.

The construct of introversion also has delimitations, as it exists on a spectrum rather than as a binary trait. Participants self-identified as introverts but may possess some extroverted tendencies as well. Capturing more nuanced degrees of introversion would strengthen the study.

Finally, variability in virtual communication tools and platforms across organizations makes comparisons challenging. Findings may depend heavily on the context-specific technologies used by leaders in the sample. Surveying tools and platforms, along with communication patterns, would improve consistency.

Despite these limitations, the dissertation employed reliability procedures and sought maximum variation in the sample to enable transferable insights on introverted leadership communication applicable to contemporary virtual teams.

### **Significance of the Study**

In a world rapidly transitioning to digital platforms and decentralized workspaces, the nature of leadership itself is undergoing transformative change. The inherent importance of communication has only been amplified in this shift, calling for a comprehensive understanding of varying leadership styles and their usefulness in these new work environments. Particularly,

the unique communication paradigms of introverted leaders, often overlooked in the face of more overt leadership styles, demand a meticulous study in the VWEs.

This study fills an important gap in understanding how introverted PMLs adapt their communication for virtual employee engagement during an unprecedented era of remote work. The research provides insights to better equip introverted managers to capitalize on their natural strengths while developing skills to engage remote employees more effectively. Enhanced virtual communication and engagement strategies may contribute to positive organizational outcomes like employee retention, performance, and satisfaction.

### **Significance to Practice**

As virtual and hybrid work models become the norm for many organizations, PMLs must adapt their communication and engagement strategies for distributed teams (Gibson & Cohen, 2013). However, much-existing leadership guidance emphasizes bold, assertive communication suited to extroverts (Cain, 2013). This study provides introverted PMLs with insights on how to leverage written, focused listening, and one-on-one conversational methods to connect with remote employees effectively.

The research identifies communication channels and tactics introverted PMLs can emphasize to build rapport, provide feedback, and motivate virtual teams. These practical insights better equip introverted PMLs to adapt their natural communication preferences to foster engagement, productivity, and satisfaction across technology-mediated interactions (Grant et al., 2011).

For organizations, the study highlights the need for more inclusive leadership development offerings that nurture introverted strengths, such as reflective communication skills.

Training tailored to introverted tendencies can ensure this demographic feels supported in leadership roles increasingly requiring virtual fluency.

Introverted individuals, by their very nature, have a distinct set of strengths, including deep reflection, the ability to listen actively, and a methodical approach to problem-solving. Recognizing and harnessing these strengths in the realm of virtual project management can reshape leadership training and development programs. Organizations can craft training modules tailored for introverted leaders, optimizing their unique capabilities for VWEs.

Employee engagement, pivotal for productivity and retention, can be particularly challenging in VWEs. By understanding the communication techniques employed by introverted leaders, organizations can develop strategies to heighten engagement, ensuring that remote work does not dilute team commitment.

An understanding of how introverted PMLs support their teams in VWEs can influence recruitment strategies. Firms can look beyond traditional leadership archetypes, appreciating the value of diverse leadership styles in varied work environments.

As organizations navigate the complexities of remote work, stakeholders stand to benefit from enhanced productivity, reduced turnover, and a more inclusive leadership model that appreciates diverse personalities. Moreover, a society that recognizes the strengths of varying leadership styles is inherently more inclusive, offering equal opportunities for professional growth irrespective of personality type.

### **Significance to Theory**

This study addresses gaps in the existing literature on how introverted PML communication adapts in technology-enabled remote work contexts. While introversion has been linked to leadership success, few studies examine moderators like the degree of virtuality (Grant

et al., 2011). This research provides an empirical basis for understanding how introverted PMLs' communication elicits engagement among distributed employees.

The study also integrates and extends media richness and introversion-extraversion theories as they relate to leadership communication channel choices. Results can refine theoretical models to capture nuances of introverted communication patterns and effectiveness in technology-mediated environments (Stephens-Craig et al., 2015).

By elucidating taken-for-granted links between introverted PMLs' communication approaches and critical employee outcomes like engagement, the dissertation also aims to challenge predominant extroverted leadership ideals that minimize introverts' contributions (Laney, 2002). Findings can spur new theoretical perspectives on diverse and inclusive leadership styles adapted for VWEs.

The traditional theoretical understanding of leadership has often been biased towards extroverted traits. This study challenges that notion by elucidating the strengths and strategies of introverted leaders, particularly in VWEs. This can pave the way for more holistic leadership theories that encompass a wide range of personality types.

The shift to remote work is relatively nascent, and there's a paucity of robust theoretical frameworks addressing leadership within this domain. This research contributes foundational knowledge to the flourishing field of virtual work dynamics by exploring what introverted PMLs use to communicate and engage their employees in these settings.

Communication, at its core, is about connection. This study dives deep into the processes and methods by which introverted PMLs establish this connection in a space devoid of physical cues. This can lead to an evolved understanding of communication theories, accommodating the nuances introduced by digital platforms and remote interactions.

The significance of this study lies not just in its immediate findings but in its potential to reshape long-standing beliefs about leadership and communication. By delving into the world of introverted PMLs and their VWEs, this research promises insights that are both timely and timeless.

### **Summary and Transition**

This research topic identifies the uncharted territory of the communication employed by introverted PMLs within a VWE. As the modern workspace pivots to more digital, decentralized platforms, understanding leadership in this context has never been more pivotal. The choice to focus on introverted PMLs arose from the realization that while extroverted leadership has often been in the spotlight, the quiet strengths of introverted PMLs, especially in VWEs, remain largely unexplored (Cain, 2013).

The significance of this study spans both practice and theory. Practically, there's immense potential to reshape leadership training and recruitment strategies and enhance employee engagement by harnessing the unique strengths of introverted leaders in VWEs. Theoretically, the research challenges and augments traditional leadership, communication, and VWEs frameworks. By shedding light on how introverted PMLs navigate, communicate, and connect in VWEs, the study offers invaluable insights to both academia and industry (Grant et al., 2011).

Furthermore, as remote work becomes the norm rather than the exception, stakeholders ranging from employees to top-tier management and shareholders stand to benefit from a more nuanced understanding of leadership styles conducive to this format. A more inclusive leadership model, one that appreciates and leverages the strengths of diverse personalities, promises not just organizational success but a societal shift towards broader inclusivity (Morrison & Milliken, 2000).

As we transition to the subsequent chapters, the focus will be on elaborating the research methodologies employed, presenting the findings in a structured manner, and discussing their implications in detail. The journey thus far has set a robust foundation, and the forthcoming sections will build upon it, weaving a comprehensive narrative around introverted leadership in VWEs. As Chapter One introduced the challenges facing introverted PMLs conducting virtual employee engagement, established associated gaps in current research, and outlined this study's interpretive phenomenological analysis to investigate introverted PMLs' communication within VWEs, Chapter Two provides an extensive review of relevant literature on introversion, leadership communication. VWEs and employee engagement. The literature review situates this study within current knowledge on the topic while justifying the need for further research.

## CHAPTER 2: LITERATURE REVIEW

The shift towards virtual work environments (VWE) demands understanding varied communication strategies, especially for introverted Project Management Leaders (PMLs) who need to engage their employees. This review aims to explore existing literature on the communication of introverted PMLs within VWEs, focusing on the usefulness of their strategies in employee engagement.

In an era where VWEs are rapidly becoming the norm (Allen, Golden, & Shockley, 2015), the communication dynamics between supervisors and employees need reevaluation. Introverted leaders, characterized by their preference for low-stimulation environments (Cain, 2013), may face unique challenges in these VWEs. Understanding how they navigate these challenges is crucial to ensure supportive team management.

The rise of virtual work environments (VWEs) can be attributed to several key factors. Firstly, technological advancements, especially the proliferation and continual enhancement of internet technology, have been pivotal enablers (Gajendran & Harrison, 2007). The internet has revolutionized communication, collaboration, and access to information remotely. High-speed broadband connections, cloud computing, video conferencing tools, project management software, and secure data-sharing platforms have made it increasingly feasible for employees to work from disparate locations seamlessly (Boumgarden et al., 2012).

Moreover, the unexpected global shifts prompted by the COVID-19 pandemic served as a catalyst for the widespread adoption of VWEs across industries. As lockdowns and social distancing measures were implemented globally, organizations were compelled to rapidly transition to remote work models to maintain business continuity (Hertel et al., 2005). This abrupt shift highlighted the internet's crucial role in facilitating virtual workplaces, allowing

companies to leverage digital tools and online communication channels to coordinate tasks, conduct meetings, and manage projects virtually.

The internet's transformative impact on work ecosystems cannot be overstated. It has dissolved geographic boundaries, enabling a global talent pool to connect and contribute regardless of physical location (Klarner & Raisch, 2013). Employees can now seamlessly access corporate resources, attend virtual meetings, and collaborate on shared documents in real time, all facilitated by internet-based platforms and applications. This digital transformation has not only reshaped traditional work paradigms but has also ushered in a new era of flexibility, enabling companies to tap into a diverse workforce while promoting work-life balance for employees (Nakrosiene et al., 2019).

As internet technologies continue to evolve, offering faster speeds, enhanced security, and more robust collaboration features, the prevalence and acceptance of VWEs are poised to grow further, reshaping the future of work and organizational dynamics.

### **Literature Search Strategy**

The literature review included searches within business, leadership, communication, and psychology databases, including Business Source Complete, PsycINFO, Emerald Insight, and SAGE Journals. Combinations of the following keywords were used: introversion, extraversion, communication strategies, leadership communication, virtual teams, remote work, employee engagement, and project management. An iterative search approach was taken, reviewing references of relevant articles to identify additional applicable studies.

The initial search used "introverted leadership," which yielded some foundational overview articles on introverted leadership strengths and challenges, such as Susan Cain's (2013) *Quiet: The power of introverts in a world that can't stop talking*. The search also found Adam

Grant, Francesca Gino, & David Hofmann (2011), Reversing the extraverted leadership advantage: The role of employee proactivity. According to the search resulted in Marti Laney (2002), The introvert advantage: How quiet people can thrive in an extrovert world. Finally, Lisa Petrilli's (2012) An Introvert's Guide to Networking was an important result that contributed to the literature of the study.

To narrow down studies on virtual contexts, keywords like "virtual teams" and "remote work" were added. Further specificity was achieved by incorporating "communication strategies" and "employee engagement" as interest factors. Searches included limiting parameters to peer-reviewed journals within the past five years for contemporary relevance.

Given the emerging prevalence of remote work arrangements, only some studies directly examined introverted leadership communication for engagement in VWEs. However, adjacent literature on introversion, leadership communication, virtual teams, and engagement provided relevant insights. An interdisciplinary approach incorporating communication, psychology, and management research was used to compile literature exploring pertinent concepts. An iterative strategy was employed to identify applicable citations in reference lists.

A comprehensive approach was adopted when there was limited current research or few relevant dissertations or conference proceedings. Older articles and foundational theories from JSTOR and Project MUSE were revisited to understand the evolution of the topic and draw parallels with contemporary challenges. Rather than focusing narrowly on "introverted project management leaders," the search was broadened to understand leadership and communication in VWEs in general. This would provide indirect insights and theories that could be applied to the context of introverted PMLs. Venturing beyond leadership and management studies, we also explored psychological, sociological, and technological databases. This interdisciplinary

approach offers a richer context, especially when direct literature on the topic is sparse. Academics, authors, or researchers who had written about related topics were contacted for unpublished or upcoming research works or simply for recommendations on relevant readings. Despite their scarcity, conference websites related to virtual work and leadership were scoured for relevant proceedings, abstracts, and presentation materials, which might still need to be published as formal papers.

The literature search process is iterative and expansive. A comprehensive overview of the available scholarship related to introverted PMLs in VWEs was collated by leveraging a combination of databases, adjusting search strategies, and ensuring an interdisciplinary approach.

### **Theoretical Foundation**

Two primary theoretical anchors form the backbone of this study. These theories are introversion theory and Media Richness Theory.

Introversion theory finds its roots in the seminal work of the influential Swiss psychiatrist Carl Jung. According to Jung's pioneering conceptualization, introversion is a fundamental personality trait characterized by a predominant orientation toward the inner world of thoughts, feelings, and subjective experiences (Jung, 1923). Introverted individuals are posited to derive their motivation and energy primarily from internal cognitive and emotional processes rather than external stimuli or social interactions. This innate disposition often manifests in behaviors such as a preference for quieter, low-stimulation environments that facilitate focused concentration, a tendency toward deeper and more reflective thinking, and a proclivity for careful, deliberate communication prioritizing quality over quantity.

Introversion theory has found extensive applications in understanding workplace dynamics, leadership styles, and team dynamics. Notably, Susan Cain's influential work on

"Quiet Leadership" (Cain, 2013) examines how introverted leaders often excel through their ability to listen attentively, engage in deep reflection, and foster environments that promote autonomy and independent thinking among team members. This theory provides a nuanced lens through which to understand the unique communication preferences and needs of introverted individuals in professional contexts.

Complementing introversion theory is Media Richness Theory (MRT), a seminal framework introduced by organizational scholars Richard L. Daft and Robert H. Lengel (1986). MRT posits that different communication media vary in their ability to reproduce informational cues and facilitate shared understanding effectively. The theory proposes a hierarchy of media "richness," with face-to-face interactions ranking as the richest form of communication, capable of transmitting multiple cues such as body language, tone, and immediate feedback. In contrast, virtual communication like email, instant messaging, or text-based tools are considered "leaner" or lower in richness, potentially posing challenges in conveying nuanced, complex information or establishing shared understanding.

MRT has been widely applied in organizational communication research, particularly in the context of distributed work environments and virtual teams. The theory has proven invaluable in assessing the usefulness of various communication tools for tasks such as conveying intricate or ambiguous information, building team cohesion, and facilitating effective knowledge transfer (Daft & Lengel, 1986).

By integrating these two complementary theories, this study aims to unravel the interplay between introverted tendencies and media richness preferences in virtual work environments. Introversion theory sheds light on the internal communication dynamics and needs of introverted individuals, while MRT provides a framework for understanding the external challenges posed

by virtual communication tools. This synergistic approach holds promise for gaining insights into how introverted project managers navigate the complexities of leading and communicating effectively in virtual work environments, where the richness of communication media may diverge from their innate preferences and communication.

### **Conceptual Framework**

This study utilizes a conceptual framework focusing on introversion and extraversion personality characteristics and communication within a VWE. Extraverts draw energy from external sources and action, while introverts draw energy from internal reflection. Particularly for introverted PMLs, the challenge and opportunity posed by VWEs is a field ripe for exploration. Applying this framework, introverted leaders may find typical outgoing communication needing to be more manageable, requiring adaptation to maintain engagement with teams remotely.

There are three main categories for this research topic: introverted leadership, employee engagement, and organizational communication. Our concept of interest lies at the intersection of employee engagement and organizational communication: the communication adopted by introverted PMLs, especially within the confines of a VWE. In project management, this translates to leaders who, while potentially less vocally dominant, bring depth, introspection, and detailed analysis to their communication.

### **Literature Review**

Both benefits and challenges exist within all organizations from the transition of staff working in VWEs. By leveraging their natural strengths and employing strategic approaches, introverted leaders can enhance their leadership effectiveness, foster meaningful connections, and drive organizational success. Introverted leaders possess distinct qualities that can be highly

valuable in a virtual work environment. Their reflective nature allows them to engage in deep thinking and thoughtful decision-making, ensuring well-considered strategies. Cain (2013) describes how introverts often excel in active listening, promoting inclusivity, and creating space for diverse perspectives, all of which contribute to effective team collaboration in virtual settings. However, introverted leaders may face challenges in virtual environments, such as limited face-to-face interactions and potential difficulties in asserting their presence (Cain, 2013). Strategic approaches can help address these challenges.

A strategic approach to virtual leadership empowers introverted leaders to leverage their strengths while adapting to the unique demands of remote work. Introverted leaders can employ strategies to foster meaningful connections in virtual environments. They can schedule regular one-on-one meetings with team members to create a sense of trust and collaboration. Utilizing technology, such as video conferencing or chat platforms, can provide opportunities for more personal interactions, enhancing team cohesion (Cain, 2013). Strategic communication is vital for introverted leaders in virtual settings. They can utilize written communication channels, such as emails or project management platforms, to articulate their thoughts clearly and concisely. By carefully choosing their words, introverted leaders can ensure their messages are effectively conveyed, promoting understanding and reducing potential miscommunication (Petrilli, 2012).

Introverted leaders can strategically use technology to improve their virtual leadership skills. Introverted leaders can use project management tools, virtual collaboration platforms, and social media networks to improve communication, assign tasks, and encourage knowledge sharing (Grant et al., 2011). These tools also facilitate information flow and support remote team engagement. Introverted leaders in virtual work environments must balance their need for solitude and self-care with the demands of collaboration and team engagement. Developing a

strategic self-care routine, such as scheduling regular breaks for reflection and rejuvenation, enables introverted leaders to recharge their energy levels and maintain mental well-being. Additionally, strategic participation in team activities, virtual meetings, and collaborative sessions ensures that introverted leaders contribute their unique insights while effectively managing their energy resources (Cain, 2013).

Strategic minded introverted leaders recognize the importance of continuous learning and self-improvement. Actively seeking professional development opportunities specific to virtual leadership can enhance their skills in areas such as virtual team management, effective communication in remote settings, and leveraging technology for collaboration (Cain, 2013). By embracing a growth mindset, introverted leaders can adapt to the evolving demands of virtual work environments and lead their teams with confidence.

Understanding the communication used within VWEs towards employee engagement from introverted PMLs is very important. Particularly of great interest are communication preferences. In particular, introverted PMLs' communication and engagement strategies in a virtual context are of keen interest. Introverted PMLs navigating this landscape require adaptive communication that ensure employee engagement. The shift towards remote and virtual work driven by advances in communication technologies and exacerbated by the COVID-19 pandemic has transformed traditional workplace dynamics. Organizations now rely heavily on distributed teams connected via digital platforms. This transition has precipitated new challenges in leadership, especially regarding communication, engagement, and relationship-building between supervisors and employees (Purvanova, 2014). While extensive research explores leadership and team dynamics in VWEs, few studies directly investigate how introverted PMLs adapt their innate communication tendencies to support employee engagement in remote settings.

Several studies highlight the importance of adapting leadership and communication for VWEs. Hambley, O'Neill, and Kline (2007) found that transformational leadership behaviors that focus on inspiring and developing team members are well-suited for VWEs. They argue that transformational leaders are able to build relationships and engage team members through virtual communication using idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation.

Yukl (2010) also advocated for a flexible leadership approach, emphasizing the need for leaders to adapt based on the situation. He highlighted task-oriented behaviors for short-term teams and relations-oriented behaviors for long-term teams. Additionally, Yukl argued that leaders must develop more vital relations-oriented skills for virtual teams, given the lack of face-to-face interactions.

Research by Newman, Ford, and Marshall (2020) found that virtual team leaders who effectively use communication tools focusing on frequency, predictability, responsiveness, clarity, and appropriate methods can positively influence team members' perceptions of performance. This aligns with Marlow, Lacerenza, and Salas (2017) findings that frequent, predictable, and clear leader communication helps engage virtual team members.

Introversion, as conceptualized in Jung's foundational personality theory, is characterized by inward focus, introspection, and reflection (Jung, 1923). Introverted leaders listen more, process information sincerely, and prefer focused interactions to broad socialization (Cain, 2013; Grant et al., 2011). These tendencies can enhance some aspects of leadership, including fostering innovation and providing individual support. However, they can also inhibit fluid external communication and relationship-building vital for engaging team members (Stephens-Craig et

al., 2015). Studies show introverts are underrepresented in leadership roles yet comprise a significant demographic of supervisors and managers (Cain, 2013).

The VWEs accentuates the opportunities and challenges for introvert PMLs. They tend to excel with written communication but may need help with the spontaneity and immediacy of virtual team interaction (Gajendran & Harrison, 2007). There remain open questions on how introverted PMLs balance innate tendencies with the explicit communication, visibility, and relationship-building required in remote environments (Kahai et al., 2012). Studies also suggest potential differences in introverted leadership communication across varying contexts within the VWEs (Cain, 2013).

This study addresses gaps in understanding how introverted PMLs adapt their communication patterns to foster employee engagement in VWEs. Using Jung's foundational Introversion/Extraversion Theory as a framework, the study will employ a qualitative interpretative phenomenological analysis research approach to categorize introverted PMLs' communication within virtual teams and correlate specific patterns with employee engagement outcomes. Findings will provide insights into leadership communication strategies suited for contemporary VWEs, with implications for enhancing inclusive leadership, employee experience, and organizational performance.

### **Virtual Work Environments (VWEs)**

As globalized economies and technological advancements blur geographical boundaries, organizations are adopting VWEs more than ever (Allen et al., 2015). Yet, supportive communication remains a challenge (Hertel et al., 2005). Understanding the distinct communication of introverted PMLs, a considerable segment of the leadership demographic is

crucial. Their unique ways of engagement can offer insights into fostering robust virtual team dynamics, nurturing talent, and driving project success (Cain, 2013).

The late 20th and early 21st centuries have witnessed an unprecedented shift from traditional, co-located workplaces to distributed VWEs. Technological innovations, cost-saving imperatives, and a drive for flexible work-life integration catalyzed this transition (Goos et al., 2019). Such VWEs rely on digital communication tools, asynchronous interactions, and, often, a lack of face-to-face contact. This evolution presents both opportunities—like tapping into global talent pools—and challenges, primarily in communication and collaboration (Gibson & Gibbs, 2006).

The complexities of communication in VWEs become more intricate when viewed through the lens of personality types. According to the Myers-Briggs Type Indicator (MBTI), a popular psychometric tool, introversion and extraversion are fundamental dichotomies influencing how individuals engage with the world (Myers et al., 1998). Introverts, who are inward-oriented, tend to prefer deeper, reflective interactions and might experience the VWE differently than their extroverted counterparts (Jung, 1923).

Introverted PMLs might find VWEs conducive to detailed, written communication and thoughtful strategy planning. However, they might also grapple with the challenges of building rapport, fostering team cohesion, or ensuring clear, immediate feedback (Cain, 2013). Their natural propensity for introspection, listening, and a methodical approach could be both an asset and a liability within the VWEs (Grant et al., 2011).

In the VWEs, introverted PMLs must often transcend their natural inclinations, adopting more extroverted characteristics to foster team cohesion and ensure clear communication (Cascio

& Shurygailo, 2003). The absence of physical presence and non-verbal cues necessitates an amplified expressiveness to mitigate misunderstandings and foster a sense of connection.

Yet, there's an opportunity for introverts to leverage digital tools to their advantage. Platforms that facilitate asynchronous communication can be particularly beneficial, allowing introverted PMLs the space for reflection before responding (Hunsaker & Hunsaker, 2008).

As VWEs increase, the imperative to understand the nuanced communication of key leadership demographics, such as introverted PMLs, grows in tandem. Analyzing their unique engagement methodologies could unveil strategies and best practices, setting the stage for the evolution of leadership in the digital age.

Kahnweiler (2018) emphasizes that introverted leaders tend to listen more, think before they speak, and demonstrate empathy. Such leaders may achieve success by leveraging their depth of thought and focus. On the flip side, they might struggle in traditional leadership scenarios that prioritize quick decision-making or vocal dominance (Laney, 2002).

Driven by technological advancements and global shifts, such as the COVID-19 pandemic, VWEs have become the norm (Allen et al., 2015). Leading virtual teams has been associated with a heightened need for proactive, clear communication (Purwanova, 2018). Studies have found relationship-oriented behaviors especially impactful for virtual teams, though potential difficulties building connections remotely (Madlock, 2008). Leader communication competence, including approachability, has shown a positive influence on virtual team performance (Gibbs et al., 2017). Fostering emotional connections from a distance can be challenging, making leader accessibility and compassion vital for engagement (Gibbs et al., 2017). However, introverts tend to prefer written or one-on-one verbal communication over extensive virtual social interaction (Laney, 2002).

Some research focuses on introverts adapting extroverted qualities through outward-focused communication (Zhang et al., 2011). However, this is a risk that can be unsustainable long-term. Alternate studies propose introverts use written expression, empathetic listening, and structured interactions to lead authentically and effectively (Kahnweiler, 2018). Further research into adaptable communication strategies for introverted virtual leaders is warranted.

Gaps exist in directly observing what introverted PMLs use to stimulate employee engagement with communication, especially virtually. This study will address this by categorizing introverted PMLs' communication and correlating tactics with employee engagement across varying remote work contexts. Findings will provide insights into inclusive leadership communication strategies adapted for contemporary VWEs.

Some research has focused on introverted leaders adapting communication patterns to demonstrate extroverted qualities, which may not be sustainable or play to innate strengths (Grant et al., 2011). Other studies have identified authentic relational communication approaches introverts can leverage, such as thoughtful email communication (Cain, 2013). Active listening and incorporating quiet time have also been suggested as communication strategies (Kahnweiler, 2018). Gajendran and Harrison (2007) note that VWEs lean heavily on written communication, which might be favorable for introverted PMLs. However, it also demands higher trust and clarity levels to prevent miscommunication. However, VWEs also come with challenges. The absence of physical presence might exacerbate introverted leaders' tendencies to be "out of sight, out of mind" or lead to misinterpretations due to the lack of immediate feedback.

Many scholars have employed qualitative methods like case studies and interviews to understand the intricacies of introverted leadership in a VWE (Boumgarden et al., 2012). Qualitative studies allow a deeper understanding of individual experiences and perspectives,

while quantitative methods offer statistical validity (Grant et al., 2011). Qualitative studies might lack generalizability, and quantitative methods might not capture nuanced experiences (Grant et al., 2011).

Introverted leadership's roles in VWEs are pivotal, given the increasing prevalence of virtual teams and the noted strengths of introverted communication in such settings (Grant et al., 2011). Introverted PMLs often excel in VWEs due to their written communication preference and deep thinking (Cain, 2013). Introverted leadership and VWEs are studied independently, and limited research holistically explore their intersection. Investigating this relationship is essential, especially with the rise of virtual teams and the potential strengths introverted PMLs bring to this domain. While some argue that introverted leadership is suited for VWEs, others believe that extroverted traits like immediate decision-making might be more crucial (Boumgarden et al., 2012).

While introverts excel in providing individualized attention and intellectual stimulation, they may need to augment their skills in exerting idealized influence and inspirational motivation within VWEs (Cain, 2013). VWEs offer avenues to craft well-thought-out communication, allowing introverted leaders to inspire and motivate teams.

The relationship between introverted leadership and VWEs remains a fertile ground for exploration. It's paramount for organizational success to understand how these leaders can leverage their innate strengths for supportive communication and team management in the digital realm. Understanding the unique strategies that introverted PMLs employ and their usefulness is crucial. The VWE, characterized by distributed teams and reliance on technology-mediated communication, has become ubiquitous in the modern corporate landscape (Gajendran & Harrison, 2007).

For introverted PMLs, VWEs might appear both inviting and daunting. The relative anonymity and space for reflective communication can be advantageous. However, building team cohesion, fostering open communication channels, and ensuring that their reflective nature doesn't come across as disengagement can be potential challenges (Cain, 2013).

Although introversion does not preclude successful leadership, few studies directly investigate how introverts adapt their communication patterns for employee engagement, especially virtually. Grant, Gino, and Hofmann (2011) called for examination of moderators influencing introverted leadership effectiveness, such as VWEs. Stephens-Craig et al. (2015) highlighted gaps regarding how introverts balance their natural tendencies with outward-focused leadership communication required. Madlock (2008) noted the need to study supervisor communication competence for virtual team performance.

Emerging research suggests introverts' reflective qualities suit computer-mediated communication lacking nonverbal cues (Boumgarden et al., 2012). However, others argue extroverted assertiveness remains critical for rapid decision-making in VWEs (Avolio et al., 2014).

The synergy between an introvert's inherent communication and a VWE's demands can illuminate insights into supportive leadership strategies in the digital age. Communication in virtual organizations is predominantly facilitated by technology. The use of emails, instant messaging, video conferencing, and other digital platforms has both enabled and constrained communication. While offering flexibility and immediacy, technology also poses challenges of misinterpretation and depersonalization. Since there is no physical presence, there are also fewer non-verbal signs and emotional expressions available. This dynamic might result in

misconceptions; therefore, it's important for leaders, especially introverted ones, to be more outspoken and clearer.

Introverted PMLs have distinct communication characterized by thoughtfulness, depth, and a preference for written communication (Cain, 2013). In VWEs, these traits can be both advantageous and limiting.

Introverted PMLs tend to excel in one-to-one communication and written formats. The virtual space, therefore, offers them an environment where they can articulate their thoughts without the immediate pressure of real-time interactions. The physical separation intrinsic to VWEs can exacerbate introverts' challenges in initiating communication and fostering relationships. Building rapport and trust without face-to-face interaction demands an intentional effort and adaptability. Several strategies have been identified to optimize introverted PMLs' communication in virtual organizations.

Enhanced Clarity and Frequency (Kayworth & Leidner, 2002): Given the absence of non-verbal cues, introverted PMLs need to ensure their communication is clear, explicit, and frequent to minimize misunderstandings.

Leveraging Technological Tools (Maruping & Agarwal, 2004): Utilizing a mix of synchronous and asynchronous communication tools can help balance the need for immediacy and reflection in communication.

Understanding the communication dynamics of introverted PMLs within virtual organizations is pivotal in the era of digital workspaces. As introverts navigate these nuanced terrains, their adaptation and evolution in communication will significantly impact team engagement, collaboration, and organizational effectiveness.

Navigating the distinctive territory of VWEs requires a comprehensive understanding of varied communication influenced significantly by individual personality traits. Central to this exploration is the Introversion/Extraversion Theory, which posits distinct behavioral and communicative patterns rooted in innate psychological orientations. This essay illuminates the role of this theory in shaping the communication of introverted PMLs within VWEs.

The genesis of Introversion/Extraversion Theory can be traced back to Carl Jung's seminal works (Jung, 1990). Jung postulated that individuals orient their behavior primarily either inwards (introversion) or outwards (extraversion), each with distinct characteristics. Introverts are characterized by their reflective, reserved, and introspective nature, often seeking depth over breadth in social interactions. Extraverts, in contrast, are outgoing and social and derive energy from external interactions.

Despite the pervasive narrative favoring extraverted qualities in leadership, recent studies illuminate the distinctive strengths introverted leaders embody (Grant et al., 2011). Their propensity for listening, depth of thought, and meticulous approach fosters an environment where creativity and innovation are nurtured.

In the realm of virtual work, the dynamics of communication are intricately linked to the introversion/extraversion axis. VWEs, characterized by technological mediation and spatial dispersion, present both challenges and opportunities for introverted leaders (Gajendran & Harrison, 2007). The absence of immediate social cues and reduced social pressure can be advantageous for introverts. However, the demand for rapid, clear, and engaging communication poses significant challenges.

## **Introversion/Extraversion Theory**

Given their natural inclination towards reflection and deep thinking, introverted PMLs can leverage these qualities to foster a thoughtful and innovative VWE (Cain, 2013). However, a conscious effort to augment their outward communication and engagement is essential to bridge the ‘virtual distance’ inherent in such environments. While adept at dynamic and spontaneous communication, Extraverted leaders may need to cultivate more profound listening and reflective skills to engage a virtual team dispersed across varied geographies and cultures (Zaccaro & Bader, 2003).

The Introversion/Extraversion Theory offers a pivotal framework for deciphering the complex communication dynamics within VWEs. For introverted PMLs, striking a balance between leveraging their innate strengths and adapting to the explicit communication demands of a VWE is key. This intricate dance between innate psychological orientations and adaptive communication strategies underscores the multifaceted nature of supportive leadership in the digital age.

Introverted PMLs in organizations, employee morale in VWEs, and the psychological effects of working from a VWE were all critical components of the literature review. Active listening is one-way introverted PMLs may raise staff morale. Introverted PMLs are more likely to participate in active listening, which can help team members feel heard and appreciated (Cain, 2013). Employee motivation and job satisfaction may consequently rise as a result.

The success of an organization depends heavily on employee morale, particularly in VWEs where team members could feel alienated or separated. Recent studies reveal that introverted PMLs can also be successful in this area, despite extroverted leaders being frequently

associated with good morale. This research study will investigate what introverted managers do that might boost staff morale in VWEs.

By fostering a culture of psychological safety, introverted PMLs can boost staff morale in another way. Edmondson (2019) defines psychological safety as the conviction that one can speak up without worrying about retaliation or bad outcomes. With their focus on one-on-one encounters and thoughtful communication, introverted PMLs are well suited to fostering a psychologically secure workplace. Introverted PMLs who foster such a culture have greater employee engagement and work satisfaction (Tim et al., 2013).

Introverted PMLs can increase staff morale by praising and honoring their team members' accomplishments and fostering a psychologically secure atmosphere. Introverted PMLs are more likely to give individualized feedback and are more receptive to employees' demands (Tims et al., 2013). Employee morale may grow due to enhanced sentiments of validation and acknowledgment.

Introversion, at its core, refers to an individual's tendency to turn inward, emphasizing internal thoughts, feelings, and moods over external stimulation (Jung, 1990). Jung postulated that introverts' energy flows inward, leading them to be reflective, analytical, and often reserved in unfamiliar settings. This definition has been expanded upon by Cain (2013), who highlighted the societal undervaluing of introverts. Cain asserts that in an age dominated by collaboration and open-office environments, introverts often thrive in quieter, more focused settings. This characteristic can be both an asset and a challenge in VWEs.

Introversion is often misconstrued as shyness, but as Cain (2013) elucidates, it is more about how individuals respond to stimulation. Introverts feel most alive in quiet, low-stimulus environments. They are inclined towards introspection, prefer deep to broad interactions, and

frequently engage in focused, individual activities (Jung, 1923). Multiple studies have found introverted personalities to be less prevalent among leaders, though introversion does not preclude effective leadership capabilities (Cain, 2013). With tendencies for internal processing and reflection, engaging team members can present challenges for introverts (Kahnweiler, 2018). This may be amplified in remote settings without visual cues.

Researchers have suggested techniques introverted leaders can use to engage employees in VWEs. Stephens, Heaphy, Carmeli, Spreitzer, and Dutton (2013) recommended that introverted leaders demonstrate accessibility by proactively reaching out to team members and sharing personal information to build relationships and trust. They also emphasized modeling engaged behavior like active listening, asking questions, and discussing employees' interests.

Several studies have examined personality differences between introverted and extroverted leaders. Grant, Gino, and Hofmann (2011) found that introverted leaders listen more and can be perceived as more receptive to employees' ideas, supporting innovation. However, they also found introverts may be undervalued and overlooked for leadership positions compared to extroverts.

Cain (2013) argued introverted leaders excel at leading initiative-takers and projecting calm, steady energy. However, they may need to be more comfortable with proactive inspiration and public speaking aspects of leadership. She advocated that introverted leadership styles should be valued and leveraged in organizations.

While introverts are estimated to comprise 40-50% of executives, leadership traditionally favors extroverted qualities like boldness and sociability (Laney, 2002; Cain, 2013). However, introverts possess innate strengths, including deep reflection, focused listening, and the ability to work independently (Kahnweiler, 2013). Introverts excel in environments where substantive

written communication is emphasized over constant vocal interactions (Grant et al., 2011).

However, their inward focus can impede fluid external communication, requiring adaptation to maintain employee engagement (Stephens-Craig et al., 2015). Key strengths of introverted PMLs include deep listening, focused one-on-one interactions, and written communication (Laney, 2002; Kahnweiler, 2018). However, their inward focus can impede fluid external communication and relationship building.

However, this strength is often juxtaposed against introverts' challenges in outward communication. The VWE, though offering comfort due to the physical distance and reliance on written communication, amplifies these challenges (Gajendran & Harrison, 2007). Introverts can struggle with immediacy and spontaneity, essential elements in virtual communication marked by instant messaging and video conferencing.

### **Transformational Leadership Theory**

Navigating the complexities of virtual leadership demands a nuanced amalgamation of intrinsic personality traits and adaptive strategies. Particularly for introverted PMLs, this interplay becomes a defining factor in fostering an engaged, responsive, and innovative virtual team. Transformational Leadership Theory offers a significant framework to explore and understand this dynamic, highlighting specific areas of strength and potential challenge for introverted virtual team leaders.

Transformational Leadership Theory focuses on inspiring change and growth in followers by appealing to higher ideals and moral values (Bass, 1985; Burns, 1979). Transformational leaders exhibit four key behaviors: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Riggio, 2006). These behaviors present both opportunities and challenges for introverted leaders seeking to engage remote employees.

Yet, the VWE requires dynamism. As Goos et al. (2019) indicated, digital platforms are arenas of rapid, dynamic interactions. Introverted transformational leaders hence employ multimedia, storytelling, and collaboration to augment the expressiveness and reach of their visionary communication.

Introduced by James MacGregor Burns (1979), Transformational Leadership underscores the leader's role in instigating change, inspiring followers, and elevating their potential. It is marked by four key components: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Riggio, 2006).

Introverted PMLs, often recognized for their reflective and thoughtful nature, align with several facets of Transformational Leadership. Their predisposition to listen attentively and foster deep connections can be instrumental in providing individualized consideration (Cain, 2013). However, the outward expressiveness associated with inspirational motivation can be challenging for introverts.

Idealized influence refers to leaders serving as strong role models who gain the trust and confidence of followers (Bass & Riggio, 2006). Introverts may find it more difficult to establish presence and visibility as inspiring role models in a VWE due to their tendency to shy away from self-promotion (Laney, 2002). However, they can demonstrate idealized influence by being highly prepared, disciplined, and thoughtful in their communication and upholding consistent ethical standards (Cain, 2013). Introverts should consciously model engaged behaviors like active listening, asking thoughtful questions, and praising employee contributions (Cain, 2013).

Inspirational motivation involves articulating an appealing vision that motivates and challenges employees (Bass & Riggio, 2006). This requires expressiveness and external focus which may not come naturally to introverts (Laney, 2002). Still, introverted PMLs can inspire by

crafting visionary written communication and setting an example of passion and purpose in their work (Cain, 2013). They may also need to collaborate with more extroverted team members to deliver inspirational messages (Laney, 2002).

Intellectual stimulation refers to encouraging innovative thinking and challenging assumptions (Bass & Riggio, 2006). This plays to introverts' tendencies to thoroughly consider ideas before speaking and channel their energy into focused work (Cain, 2013). Introverted PMLs can stimulate innovation by sharing ideas individually, soliciting employee perspectives, allowing time for reflection, and establishing digital spaces for brainstorming (Stephens et al., 2013). Yet, the VWE often presents a depersonalized interface. Leaders, as observed by Purvanova (2014), need to amplify personalized communication. Introverted PMLs employ digital tools like personalized messages, virtual one-on-ones, and customized feedback to bridge the virtual divide.

Individualized consideration means understanding employees' individual needs, acting as a mentor, and supporting their growth (Bass & Riggio, 2006). Introverts naturally excel here, as their propensity for listening helps them forge meaningful one-on-one connections and provide tailored support (Cain, 2013; Grant et al., 2011). However, they may need to be more proactive in their outreach when working remotely (Cain, 2013). Overall, introverts' thoughtful, patient approach allows them to foster personalized development. In VWEs, platforms like digital forums, webinars, and interactive sessions become pivotal. Henttonen & Blomqvist (2005) highlight that virtual intellectual stimulation is anchored in interactive, collaborative digital platforms where ideas are shared, scrutinized, and evolved.

The interplay between Transformational Leadership Theory and introverted PMLs within VWEs is multifaceted. While their reflective nature is an asset in providing individualized

consideration and intellectual stimulation, a conscious adaptation is necessary for navigating the domains of idealized influence and inspirational motivation. The digital landscape, with its unique challenges and opportunities, beckons introverted transformational leaders to harmonize their innate strengths with adaptive strategies, fostering an engaged, inspired, and innovative virtual workforce.

While some aspects of Transformational Leadership come less instinctively to introverts, they can capitalize on strengths like reflective listening while adapting other behaviors through preparation, collaboration, and conscious role modeling. With awareness and adaptation, introverts are well positioned to engage virtual employees and lead transformation through idealized influence, inspiration, intellectual growth and individual support. Transformational leadership, in the realm of introverted virtual team leaders, morphs into a dynamic dance of introspective strengths and adaptive expressions. As introverted PMLs weave through the tapestry of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, a new paradigm of transformational leadership emerges, characterized by depth, adaptability, and a nuanced engagement that transcends the virtual divide.

### **Communication Strategies**

Communication strategies are deliberate methods and techniques leaders utilize to convey messages, foster interaction, and build relationships with their employees who work in VWEs. These strategies often rely heavily on digital tools and platforms, underscoring the need for proficiency in their use and an understanding of their limitations and strengths (Duarte & Snyder, 2011). Introverted leaders often excel in written communication, a skill particularly advantageous in virtual environments. Written mediums such as emails, instant messaging, and

project management tools offer them the time and space to articulate thoughts coherently (Amichai-Hamburger & Vinitzky, 2010). Their tendency to reflect before responding can lead to more thoughtful, concise, and clear communication.

Introverts are generally recognized for their active listening skills. In virtual settings, they can leverage this strength by creating open channels for feedback and encouraging team members to voice their opinions. This not only fosters a sense of belonging among employees but also aids in gathering diverse perspectives, which is crucial for successful project management (Wilkins et al., 2023).

Carey (1989) emphasizes the importance of understanding communication as a symbolic process, highlighting how meanings are constructed and shared through language, media, and other forms of communication. Recognizing that different team members may have different communication preferences, introverted supervisors might use a variety of channels (e.g., video calls, chat platforms, emails) to accommodate these preferences. This flexibility in communication can cater to the diverse needs of their team and enhance overall engagement (Bhatti & Ahsan, 2021). Introverted leaders often have a keen sense of empathy, which they can use to tailor their communication to individual team members' needs. Personalized emails or messages, checking in on employees' well-being, and offering support where needed, are all strategies that can strengthen the leader-employee relationship in a remote setting (Grant et al., 2011).

Asynchronous communication is a staple in virtual environments, allowing for flexibility and time to process information. Introverted leaders might prefer and excel in these exchanges, as they provide the opportunity to consider responses carefully and manage communication on their own terms (Ab Wahab & et al., 2023).

## **Employee Morale**

The success of an organization depends heavily on employee morale, particularly in VWEs where team members could feel alienated or separated. Recent studies reveal that introverted PMLs can also be successful in this area, despite the fact that extroverted leaders are frequently associated with good morale. This research study will investigate what introverted PMLs use to boost staff morale in remote work settings by exercising executive decision-making through strategic judgment. Introverted PMLs can increase staff morale by praising and honoring their team members' accomplishments in addition to fostering a psychologically secure atmosphere. In particular, user motivation urges individuals to embrace new technologies and products (Tian & Lu, 2022). Introverted PMLs are more likely to give individualized feedback and are more receptive to employees' demands (Tims et al., 2013). Employee morale may grow as a result of enhanced sentiments of validation and acknowledgment. Tian & Lu (2022) advised that motivation is comprised of three classifications, which are utilitarian (ease of use, saving time), hedonic (enjoyment, fun, pleasure), and social (sharing). Finally, the article provides evidence that innovativeness can contribute to engagement.

By fostering a culture of psychological safety, introverted PMLs can boost staff morale in another way. Edmondson (2019) defines psychological safety as the conviction that one can speak up without worrying about retaliation or bad outcomes. With their focus on one-on-one encounters and thoughtful communication, introverted PMLs are well suited to fostering a psychologically secure workplace. Introverted PMLs who foster such a culture have greater levels of employee engagement and work satisfaction (Tims et al., 2013).

## **Employee Engagement**

Employee engagement is a critical determinant of organizational success, defined by Schaufeli et al. (2002) as a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption. Kahn (1990) posits that engagement is about harnessing employees' full selves into their work roles. In VWEs, this concept takes on additional complexity due to the absence of physical interaction, which can influence team dynamics, communication, and overall morale. Introverted PMLs can develop a productive workplace that promotes high levels of engagement, job satisfaction, and motivation among team members by stressing active listening, creating a psychologically secure environment, and rewarding employee accomplishments. Leaders should deliberately be more cautious in their emotional exhibitions because their negative actions and performances can cause a decrease in employees' engagement, resulting in low morale and inadequate performance around the workplace (Wolor et al., 2022).

Frequent and supportive communication in VWEs can assist with increasing or maintaining employee engagement. It mitigates the sense of isolation, keeps team members aligned with project goals, and ensures a steady flow of information. Chanana & Sangeeta, (2021), advised that understanding the need and how to execute virtual work method employee engagement activities are very beneficial for employees as well as for corporations. Teams with highly productive members offer an avenue for effective team composition, provided that the team members find ways to collectively capitalize on their predisposition to demonstrate competence relative to others (Pasarakonda et al., 2023). Organizations that exercise activities that promote employee engagement and assist employees and leaders in learning new skills and developing themselves (Chanana & Sangeeta, 2021). Myers and Sadaghiani (2010) advised that younger employees, in particular, expect more frequent communication from their leaders,

including immediate feedback and regular updates. Regular updates given by the PML to their employees are important for employee morale and keeping the employees engaged.

Implementing daily or weekly updates can help keep the team informed and engaged (Hoch & Kozlowski, 2014). The use of various communication technologies can aid in bridging the physical gap, ensuring team members feel connected and informed (Cascio & Shurygailo, 2003). Regular feedback sessions allow for addressing concerns and acknowledging achievements, fostering a culture of recognition and responsiveness.

Trust is a cornerstone of employee engagement in virtual teams. Building rapport through virtual team-building activities and informal interactions can foster a sense of trust and camaraderie (Malhotra et al., 2007). Leaders should evaluate platforms and begin to think about how they will set up the framework for the engagement itself (Ferri & Bradbury, 2021). Virtual engagement organizers should create touchpoints before, during, and after the event. Ferri & Bradbury (2021), advised that following this process will support organizations of all types in creating successful virtual engagement.

Regular recognition and constructive feedback are crucial for keeping remote employees engaged. Acknowledging accomplishments and providing developmental feedback can enhance an employee's sense of value and growth (Purvanova, 2014).

Employee engagement in VWEs is a multifaceted issue that requires a nuanced approach. Supportive communication, trust-building, recognition, and the use of digital engagement tools are key to fostering a productive and engaged remote workforce. As organizations continue to adapt to the evolving nature of work, understanding and implementing these strategies will be critical for success in VWEs.

## **Analytical & Reflective Communication**

An analytical and reflective communication often characterizes introverted PMLs. Cain (2013) illustrated that introverts tend to process information internally, leading to well-thought-out, considered responses. In the context of a VWE, this introspective communication can facilitate detailed, comprehensive written communication, an asset in asynchronous communication modalities. Introverted PMLs often exhibit a distinct communication characterized by thoughtfulness, depth, and a preference for written over verbal communication (Cain, 2013). These leaders, by their nature, are reflective, listening attentively, and processing information deeply before responding. Their responses are typically well-considered and insightful but may sometimes be limited by a degree of reservation or hesitancy in spontaneous communication scenarios (Lanaj et al., 2016).

Introverted PMLs often have unique communication when interacting with their employees. Communication can encompass various aspects. Firstly, the tone and language used, whether formal or informal, direct or indirect. Secondly, the frequency and length of communication, ranging from brief and concise to more detailed and lengthy exchanges. Another aspect is the preference for written or verbal communication processes. Additionally, communication can vary in the level of directness or indirectness when giving instructions or feedback. The degree of approachability and openness to dialogue is also a factor. The use of visual aids, presentations, or other supplementary materials may be employed. There could be a preference for one-on-one or group communication settings. Timing and scheduling, such as ad hoc or scheduled meetings, play a role. Finally, communication can range from highly personal to impersonal interactions.

The study aims to categorize the common communication exhibited by introverted leaders when interacting with remote staff. This could include identifying patterns in tone, directness, level of detail, preferred methods (written vs. verbal), and other characteristics that define their unique way of communicating and engaging with dispersed team members (Daft & Lengel, 1986).

VWEs present unique opportunities and challenges for introverted leaders. The often asynchronous communication exchanges, such as email and messaging apps, align with introverts' reflective nature, allowing time for thought before responding (Gajendran & Harrison, 2007). However, the lack of physical presence and non-verbal cues can sometimes exacerbate the challenges introverts face in building rapid rapport and expressing emotional resonance (DeRue et al., 2011). While the written communication preference serves as a strength, introverts often face challenges in more expressive, spontaneous communication contexts. Jung (1923) noted the introverts' tendency towards reservation in extemporaneous interactions. In virtual meetings or real-time digital interactions, introverted PMLs might need to adopt adaptive strategies to enhance expressiveness and engagement.

In a study by Kahai, Huang, and Jestice (2012), introverted leaders in virtual teams were observed to excel when they adapted their communication to be more expressive and engaged. Utilizing the written medium, enhancing clarity, employing empathetic language, and ensuring regular touchpoints became essential aspects of fostering team engagement. Kahai et al. (2012) underscored the need for adaptive communication strategies for introverted leaders in VWEs. The role of technology in shaping communication and culture emphasizes that technology is not neutral but has cultural and social implications (Carey, 1989). Integrating multimedia tools,

visual aids, and other expressive elements can augment the communication usefulness of introverted leaders, enabling them to transcend inherent expressive constraints and engage teams.

One of the hallmarks of introverted communication is active and empathetic listening. Grant et al. (2011) highlighted that introverted leaders, by virtue of their listening proficiency, can foster an environment of inclusivity and collaboration. In a VWE, this translates into attentive engagement in virtual meetings, responsiveness to communication, and a nuanced understanding of team members' perspectives and needs.

Introverts are naturally skilled at focused, attentive listening, which helps build one-on-one connections in VWEs (Cain, 2013). Their tendency to listen first and speak later fosters a deeper understanding of employees' needs and ideas. However, introverted PMLs may need to be more proactive in their listening, utilizing active listening techniques through video chats and messaging platforms.

Introverts' reflective nature allows them time to develop thoughtful, insightful responses to questions and concerns (Lanaj et al., 2016). This thoughtful communication can enhance clarity and problem-solving in asynchronous virtual interactions over email and messaging platforms. However, introverts should be aware of situations requiring more spontaneous communication and adapt accordingly.

Introverts often excel at written communication, which serves them well in text-based VWEs (Cain, 2013). Their ability to express ideas clearly in writing helps provide vision, direction, and feedback across digital channels. However, solely relying on written communication can limit emotional connectivity, rapport-building, and inspiration that may require real-time interaction.

Technology-mediated communication, though beneficial, necessitates adaptation from introverted leaders to ensure emotional connectivity and clarity (Purvanova, 2014). The emergence of artificial intelligence and other digital tools could bridge this gap, offering personalized, instant communication while allowing leaders the space for reflection.

Establishing interpersonal rapport and connections can be challenging for introverts without face-to-face contact (DeRue et al., 2011). They may need to adapt their communication by asking engaging questions, sharing personal details appropriately, and conveying warmth through empathetic language to build trust virtually.

Introverts tend to be less expressive, which may inhibit conveying vision inspirationally or responding to others' emotions effectively from a distance (Cain, 2013). Consciously incorporating emotion, passion, empathy, and visibility into their virtual communication can help introverts adapt.

Introverted communication tendencies have trade-offs in virtual leadership. Reflection supports thoughtful responses and written communication but can limit the rapport-building and emotional expressiveness needed to engage remote teams. With adaptation using empathy, active listening, and non-written channels, introverts can become highly supportive virtual communicators.

The study of introvert PMLs' communication within a VWE unveils a dynamic interplay of intrinsic personality traits, adaptive strategies, and the instrumental role of technology. These leaders' success hinges on a delicate balance of leveraging innate strengths and adopting enhanced communication modalities to foster an engaged, collaborative, and innovative virtual team.

Researchers have established the importance of adapting leadership and communication approaches for virtual teams, with a focus on engagement, inspiration, and relationship-building demonstrating effectiveness in distributed environments. Studies have shown both strengths and weaknesses of introverted leadership that should be understood and managed in VWEs. Recommended strategies emphasize proactive relationship-building, thoughtful use of communication media aligned with introverted tendencies, and consideration of employee needs and preferences. Further research incorporating employees' perspectives on introverted leadership could provide additional insights on optimal engagement strategies.

The review underscores a dichotomy in the communication of introverted PMLs within VWEs. The intrinsic strengths rooted in reflectiveness, written communication proficiency, and empathetic listening are profound. However, the inherent challenges in expressive and spontaneous communication necessitate strategic adaptations.

In this dynamic interplay of intrinsic and adaptive communication modalities, introverted leaders carve a distinct niche in VWEs. Their ability to meld introspective reflection with adaptive expressiveness culminates in communication that is both nuanced and efficacious, marked by depth, consideration, and strategic expressiveness.

### **Summary and Conclusions**

The literature underscores the significance of understanding introverted leadership within a VWE. Given the evolving nature of work and the unique strengths of introverted PMLs, this investigation holds relevance for contemporary organizational dynamics.

The unique qualities of introverts, such as a preference for written communication, an innate ability for empathetic listening, and a tendency to stimulate intellectual discussions, are well-suited for VWEs. Despite their strengths, introverted leaders can face difficulties in

establishing trust and building connections virtually, primarily when verbal communication is limited.

There is ambiguity in the literature regarding whether an introverted PMLs characteristic inward focus benefits or hinders their capacity to lead remote teams. This highlights the critical need for more extensive research, especially observational studies, to understand the fusion of inherent and adapted communication of introverted leaders in VWEs. There are gaps in understanding specific communication introverted leaders can employ to engage virtual teams while remaining authentic. Research on adaptable introverted communication strategies for the remote context would contribute to useful leadership approaches for workplace settings increasingly operating virtually.

Introverted PMLs seem naturally aligned with the requisites of virtual communication. Still, they must actively refine their strategies to ensure clear communication, project approachability, and nurture virtual relationships. Leveraging the inherent strengths of introverted PMLs, like active listening and empathy, through targeted training could optimize their effectiveness in leading virtual teams.

Understanding the communication dynamics of introverted PMLs within virtual organizations is pivotal in the era of VWEs. As introverts navigate these nuanced terrains, their adaptation and evolution in communication will significantly impact team engagement, collaboration, and organizational effectiveness.

Looking at VWEs, Spataro (2005) proposed that introverts' tendency for preparation and careful communication helps mediate the lack of nonverbal cues in computer-mediated communication. This indicates introversion may be well-suited for remote leadership positions that rely heavily on written and digital communication.

The dichotomy of quiet reflection and the demands of outward communication defines the terrain introverted PMLs navigate in VWEs. While their reflective abilities are a notable strength, adapting to the demands of explicit, fast-paced communication is essential. Unraveling and understanding this complex dynamic is pivotal to harnessing the full potential of introverted leaders in the digital age, marking a significant step towards fostering an inclusive, diverse leadership landscape in contemporary organizations.

As Chapter Two provided an extensive review of relevant literature on introversion, leadership communication, virtual work environments, and employee engagement, Chapter Three will provide an extensive review of the research methods used in this study. The research methods chapter will establish the interpretive phenomenological analysis that guides this study to explore the essence of introverted PMLs' experiences with communication and strategies for engaging employees in a VWE. It will cover key components, including the rationale for a qualitative methodology, my role as the researcher, participant selection procedures, data collection through interviews and field observations, data analysis approaches to identify themes, issues of trustworthiness, and ethical considerations. The rigorous interpretive phenomenological analysis methodology outlined in Chapter Three aims to yield crucial insights into the intricate dynamics of introverted leadership communication within increasingly prevalent VWEs.

### **CHAPTER 3: RESEARCH METHOD**

This study is an interpretive phenomenological analysis research study that aims to explore the communication of introverted Project Management Leaders (PML) in virtual work environments (VWE). The key sections in this chapter cover the research design and rationale, the role of the researcher, methodology, issues of trustworthiness, and ethical procedures.

#### **Research Design and Rationale**

The research questions guiding this study are:

RQ1: What communication do introverted PMLs use to engage employees in a VWE?

RQ2: What communication strategies support employee engagement most under introverted virtual leaders?

This study's primary purpose is to examine the nature of interactions between introverted project managers and their colleagues within virtual work environments. Engagement levels, team cohesion, and productivity depend heavily on this communication. Understanding the complexities and characteristics of such leaders' introverted character and how it interacts with a distant work dynamic is crucial.

This study employs a qualitative interpretive phenomenological analysis to investigate the communication preferences and lived experiences of introverted PMLs in online environments (Creswell & Creswell, 2017). The communication methods used by introverts in leadership roles that oversee virtual teams are an interesting topic. To fully comprehend this phenomenon from the viewpoint of individuals who experience it firsthand, a phenomenological approach is necessary (Moustakas, 2009).

Typically, phenomenological work in psychology focuses on personal meaning, and so the relationship between person and world is operationalized at the individual level (Larkin et al.

2019, p. 184). Thus, in IPA projects, the most common research designs involve collecting qualitative data from a reasonably homogenous group who share a certain contextual perspective on a given experience (Larkin et al. 2019, p. 184). These designs provide a distinctly personal perspective on a particular experience, affording us an in-depth understanding of that experience. They emphasize the significance of the idiographic perspective and the function of the case study in shedding light on the way in which individuals interact with the real world (Larkin et al., 2019).

Although other qualitative methods were taken into consideration, IPA best fits the aim of capturing the essence of participants' common experiences. Although narrative research is a legitimate strategy, its focus on personal experiences may not directly address the unique communication quirks in virtual workplaces in a project management context. Case study research may offer in-depth perceptions of a specific case, but it may also restrict the generalizability of conclusions. The broad scale of this research does not lend itself well to ethnography, which is generally used to comprehend entire societies. If the goal were to develop a new theory of introvert communication in VWEs, grounded theory would be helpful. However, understanding current phenomena rather than developing new theories is the main goal here. Because of their quantitative concentration on causation rather than experiential understanding and quantitative nature, experimental or quasi-experimental designs were deemed to be less effective (Creswell & Creswell, 2017). With this design decision, it is not without its limitations, including potential researcher bias and limited generalizability. These limitations are in line with the main goals of this study.

The IPA method was chosen because it allowed for a thorough investigation of the participants' fundamental experiences (Smith et al., 2022). It gave space to identify trends,

actions, and underlying motives affecting the communication of introverted PMLs in a virtual setting (Smith et al., 2022). The qualitative IPA method was chosen because it emphasizes individual experiences and individualized interpretations.

There are limitations to phenomenology, even though it offers a tremendous depth of information. Subjectivity is one restriction. Due to the method's interpretative character, conclusions may be viewed as subjective, as is the case with many qualitative designs (Smith et al., 2022). Generalizability is still another restriction. As a result of the emphasis on particular lived experiences, the findings might not necessarily be broadly generalizable. The final identified constraint is time-consuming. Smith et al. (2022) explain that phenomenological research, by its nature, involves a high degree of interpretation, which can introduce subjectivity into the findings.

For IPA research, lengthy interviews are necessary, which can require a lot of time. The qualitative IPA technique was determined to be the most appropriate for the goal of analyzing the communication of introverted PMLs in VWEs. Despite its limitations, the depth and richness it offers make it the best option for addressing the study issues (Seidman, 2006).

### **Researcher's Role**

The researcher will take on an observer-participant role in this study. The researcher currently works as a project manager in a telecommunications company, managing remote teams within the project management department. In their professional role, they have observed that many introverted colleagues face challenges in engaging with teams virtually. Their personal experience as introverts managing virtual employees sparked an interest in this research topic, allowing them to gain an in-depth understanding of their communication while simultaneously maintaining a level of detachment for objective analysis.

Tools will be leveraged in a professional network and LinkedIn contacts to recruit other participants. The Project Management Institute website allows members to post questions and information in chat forums, where the researcher plans to ask other project managers if they would be interested in participating in this study. LinkedIn will also allow posting this same information to gather potential participants for this study. The post will advise that anyone interested will need to respond directly to the researcher within 10 business days from the initial post. Any potential participant interested in participating in this study will be screened to ensure they fit the criteria of being part of this study. During interviews, an interview protocol will be used to maintain consistency across participants. However, having similar professional experiences could introduce unconscious bias in how the researcher asks follow-up questions or interprets responses. To mitigate bias, journaling throughout data collection will be exercised to bracket personal opinions and experiences separate from participants' perspectives (Fischer, 2009). Member-checking will also ensure the researcher has captured participants' intended meanings without inaccurate assumptions. Transparency will help mitigate any unconscious bias during interactions. To counteract potential biases, portions of the collected data and preliminary findings will be subjected to peer review, allowing for an external perspective to highlight any potential oversights. Throughout the study, a reflective journal will be maintained in order to document personal thoughts, feelings, and biases, ensuring personal introspection and awareness.

Because the researcher is an introverted project manager, they need to ensure that they do not project their own biases onto participants' experiences. Introversion manifests differently across individuals (Cain, 2013). While relating to some of their challenges may occur, they need to avoid assuming their communication preferences align with mine. The goal is to represent participants' perspectives in their own words rather than through my subjective lens.

In terms of relationships, the researcher does not hold any power positions over potential participants. However, there could be a perceived expectation to participate, given their professional connections. The researcher will remain cognizant and address any emerging ethical concerns following best practices. Maintaining diligent reflexivity and transparency in disclosing their position as an introverted project manager will help safeguard against researcher bias and ethical issues.

While this research presents certain ethical intricacies due to prior professional relationships and the nature of the chosen environment, rigorous strategies have been employed to ensure the study's integrity. A commitment to transparency, continuous reflection, and clear delineation of roles will be upheld throughout the research process.

### **Methods**

Based on people's actual experiences and viewpoints, qualitative approaches enable researchers to develop a thorough knowledge of complex phenomena (Creswell & Creswell, 2017). The depth of comprehension, context-awareness, and richness of perspective required to clarify the complex dynamics of introverted communication within increasingly virtual work situations are provided by a qualitative IPA methodology.

#### **Participant Selection**

The population of interest for this research comprises introverted PMLs who are actively engaged in leading teams within VWEs. Based on recent industry reports and data from virtual work platforms, it's estimated that there are approximately 10,000 such supervisors globally (Allen et al., 2015). However, this number might vary based on nuanced definitions of "introverted" and the scope of industries considered.

Given the qualitative nature of this research, a purposive sampling strategy will be employed. When exercising sampling, the researcher must select participants that will best help understand the problem and answer the research question identified (Creswell & Creswell, 2017, p. 210). This strategy allows for the selection of individuals who specifically align with the research objectives and possess rich experiential knowledge pertinent to the phenomenon under study. The emphasis is not on generalizability but rather on obtaining a deep understanding of the communication used by introverted PMLs in VWEs.

To take part in this research study, people must be working as PMLs. The participants must also have at least five years of experience managing teams in a VWE. Also, the participants will be given a Myers-Briggs personality test (Appendix A) that is entitled “MBTI Online for Personal Growth” and were charged \$59.99 for each test at the time this research was performed. The participant must receive a result on the introversion personality preference scale with a score between a 25% to 50% threshold on the introversion scale. Based on survey results, potential participants who fit the criteria will be contacted and invited to participate in the study. These participants will be provided information about the research project, its purpose and goals, and how much time the interview is projected for it to take. Before data is collected, each subject must give informed consent (Appendix B). Participants' professional backgrounds, verified through LinkedIn or similar platforms, combined with their responses in the screening survey, will confirm their alignment with the set criteria.

For this IPA study, a sample size of eight to ten participants is targeted. This number is not based on statistical power, as in quantitative research, but rather on the principle of data saturation.

In qualitative studies, data saturation refers to the point at which no new or relevant information emerges from the data, suggesting that the sample size sufficiently captures the range of experiences or phenomena (Creswell & Poth, 2018). The exact point of saturation can vary but is typically recognized when there's a repetition in themes or insights across multiple participant accounts. Thus, while the sample size may seem relatively small compared to quantitative studies, it is crucial to understand that the aim is depth and richness of data, not necessarily extensiveness. Should saturation be achieved earlier or later than anticipated, the sample size may be adjusted accordingly. This research approach ensures a comprehensive exploration of the communication employed by introverted PMLs in virtual settings, capturing the depth and nuance required for meaningful insights.

### **Procedures for Recruitment and Participation**

Participants will be found through websites such as LinkedIn, PMI and other professional organizations outlining the study criteria. The recruitment post (Appendix C) will contain my contact information for interested individuals to initiate participation. Qualified contacts will be emailed who meet the inclusion criteria to invite them to participate.

Once potential participants indicate interest, verification through eligibility screening questions on introversion, project management role, and virtual team experience will be conducted. Eligible individuals will receive an informed consent form detailing the study purpose, procedures, risks/benefits, privacy measures, and an option to withdraw. Signed consent forms will be obtained before data collection.

Basic demographic information will be collected from each consenting participant, including age, gender, and years of experience. This data will analyze comparisons to uncover potential patterns.

The primary data collection will involve 45–60-minute semi-structured video interviews conducted over Zoom at dates/times convenient for participants. The interviews will be recorded with permission and professionally transcribed. Initial interview questions (Appendix D) will cover communication preferences, strategies for engaging virtual employees, challenges faced as an introvert, and adaptations made for the VWEs. Follow-up questions will seek to obtain deeper insights when needed.

After interviews are completed and transcribed, member checking will be exercised to verify the participant's interview transcripts. Participants will have the opportunity to review their transcripts to ensure accuracy and intended meanings. Any clarifications or feedback will be incorporated.

To exit the study, participants can notify the interviewer at any time if they wish to withdraw. All recordings and data from withdrawn participants will be immediately destroyed. When the study is over, the people who took part will get a report of what was found by the researcher, sending the participants a copy of the final study.

### **Instrumentation**

The primary instrument for data collection will be a semi-structured interview protocol developed by the researcher. The questions were designed based on key concepts from the literature review and aimed to address the research questions about communication and strategies used by introverted PMLs in virtual settings. The interview protocol contains nine open-ended questions that explore various topics related to virtual communication for introverted project management leaders. These questions delve into communication preferences, such as the inclination towards written versus verbal methods of communication, as well as preferences for one-on-one or group interactions. The protocol also investigates the tactics employed by these

leaders to engage and connect with virtual employees operating in remote or distributed teams. Furthermore, it explores the unique challenges that introverts may face in navigating the dynamics of a virtual work environment. Additionally, the questions aim to uncover any adaptations or modifications that these leaders have made to their inherent communication to better align with the demands and nuances of virtual settings. By probing these diverse aspects, the interview protocol aims to gain a holistic understanding of the communication approaches, obstacles, and coping mechanisms utilized by introverted project management leaders in the context of virtual work environments.

Follow-up probing questions will be used to elicit deeper insights when needed. The semi-structured format allows for flexibility to pursue relevant topics that arise.

The interviews will be conducted over Zoom and recorded with participant consent. The recordings will be transcribed to create verbatim written transcripts, which will facilitate a detailed analysis of themes related to introverted communication and strategies.

### **Field Test**

One introverted leader currently experienced in leading a virtual team was asked to participate in a field test. The participant had at least five years of experience managing virtual teams and scored as introverts on a preliminary introversion screening survey. This aligns with the purposive sampling strategy outlined for the main study, which emphasizes selecting information-rich cases that fit the specified criteria (Creswell & Poth, 2018).

The field test aims to identify any weaknesses in the proposed research design and make the necessary adjustments before the main study. It ensures that the instruments are valid, reliable, and sensitive to the nuances of the topic (Leon et al., 2011). The feedback from this field test participant will be instrumental in refining the research questions, improving the

research protocols, and ensuring clarity in the instructions provided to the main study participants. The field test assisted by refining interview questions before the data collection plan had begun. A 45-minute semi-structured interview was conducted with the participant via Microsoft Teams. The interview protocol contained eight open-ended questions exploring communication preferences, strategies for engaging virtual teams, challenges introverts face, and adaptations to virtual settings.

Based on the field test results, the interview protocol was refined to include additional probes about asynchronous communication and relationship-building tactics. The final dissertation protocol contained nine open-ended questions. Conducting this field study helped validate that the interview questions aligned with the research aim and allowed for improvements before the main study. No other substantial changes to instrumentation, data collection, or analysis strategies were warranted based on the field test results.

### **Data Collection Procedures**

This study is a qualitative IPA investigation aimed at understanding the fundamental nature of the experiences of introverted PMLs on communication and tactics for engaging employees in VWEs. Given the virtual context of the study, the collection procedures will incorporate strategies recommended by Duarte and Snyder (2011) for effectively engaging participants in online environments. This is crucial, as Haythornthwaite & Kazmer (2004) emphasize the unique dynamics of virtual communication and collaboration. By focusing on these collection procedures, the study aims to yield deep insights into the interaction between introversion, leadership, and virtual communication.

### **Intervention Studies or Those Involving Manipulation of an Independent Variable**

There are no variables being manipulated or materials/programs being applied as experimental treatments. Also, the goal is not to test causal hypotheses related to introverted communication but rather to inductively elucidate the meanings participants attribute to their virtual leadership communication approaches. The semi-structured interview protocol serves as the instrument to collect qualitative data about participants' perspectives and behaviors related to the phenomenon of interest (Siedman, 2006). Since this is a non-experimental qualitative study focused on describing a particular leadership experience, there are no independent or dependent variables or experimental manipulations involved.

### **Data Analysis Plan**

Interview data will be linked to understanding the self-reported communication of introverted PMLs. Each interview will be transcribed into text to create a “hard copy” of the questions and answers. Reading and re-reading the interview transcripts will be the first step of the data analysis plan.

Exploratory noting will be done to label primary ideas (Smith et al., 2022). Exploratory noting is crucial for beginning to understand the breadth and depth of the data collected. It allows the researcher to start recognizing patterns and themes in the data by categorizing information based on similarities and differences (Merriam & Tisdell, 2016). This phase is exploratory and helps in developing a preliminary conceptual framework that guides the subsequent analysis. It lays the groundwork for more focused and thematic analysis by highlighting relevant concepts and phenomena embedded in the data (Smith et al., 2022).

Axial coding will then group these initial codes into broader themes or categories (Merriam & Tisdell, 2016; Smith et al., 2022). Axial coding is significant because it begins to

move the analysis from fragments to a more structured understanding of the data. By grouping codes into broader categories, the researcher can identify key themes and constructs that are crucial to the research questions (Merriam & Tisdell, 2016). This step is essential for developing a more refined and in-depth understanding of the data, allowing the researcher to identify the central phenomena being studied and understand their dimensions and properties (Smith et al., 2022).

Selective coding will refine these categories and identify overarching narratives or patterns (Merriam & Tisdell, 2016; Smith et al., 2022). The significance of selective coding lies in its ability to distill the analysis into a focused examination of the core phenomena under investigation. Selective coding helps in identifying the overarching narratives or patterns that answer the research questions (Merriam & Tisdell, 2016). This stage is critical for theorizing, as it allows the researcher to articulate the main findings of the study and how they contribute to existing knowledge or theory (Smith et al., 2022).

After coding for each interview, the researcher will begin to search for connections across experiential statements with all the interviews (Smith et al., 2022). Searching for connections across interviews is vital for ensuring the validity and depth of the findings. It allows the researcher to validate the universality or specificity of certain phenomena, understand variations in experiences or perspectives, and build a comprehensive understanding of the research topic (Merriam & Tisdell, 2016). This step is crucial for ensuring that the findings are robust, nuanced, and reflective of the complexity of the subject matter being studied (Smith et al., 2022).

The technique of bracketing will be used to set aside any personal experiences and preconceptions, ensuring they do not unduly influence the research process (Fischer, 2009). Discrepancies or outliers in data will not be discarded. Instead, they will be analyzed to

understand their origin and implications. If a pattern emerges from these discrepancies, it might indicate a subset of the population with unique experiences, warranting further investigation (Smith et al., 2022).

The final step is working with personal experiential themes to develop group experiential themes across cases (Smith et al., 2022). Deepening the analysis by utilizing metaphors and temporal referents and by importing other theories as a lens through which to view the analysis is the final step in the coding process (Smith et al., 2022).

This methodology is meticulously crafted to adequately address the research questions about the communication of introverted PMLs in virtual settings. The data collection and analysis procedures are designed to capture the nuances and intricacies of this communication and offer insights that might be beneficial for organizational leadership and team dynamics in a digital age.

### **Issues of Trustworthiness**

#### **Credibility**

It is important, as Kaufmann et al. (2021) emphasize, for the need to address credibility within the research method. Several strategies will be employed to ensure the credibility (internal validity) of the findings from this IPA study on introverted leaders' communication. A transcript review is a strategy in which participants will have the chance to review their interview transcript to confirm it accurately captures their intended responses. Any clarifications received from the participants can be incorporated if needed. Member checking is another strategy that seeks emerging themes and the researcher will share conclusions with participants to verify that they ring true to their experiences. Participants can provide feedback on the accuracy of interpretations. Triangulation is a strategy that compares observational field notes during

interviews to augment and verify what is conveyed verbally by each participant. To enhance the credibility and rigor of the qualitative analysis, the procedures employed and the conclusions emerging from the data will undergo a peer examination process, wherein colleagues well-versed in qualitative research methods will critically review and assess the plausibility of the interpretations and findings in light of the collected evidence. The researcher will use researcher reflexivity to critically reflect on their own biases through journaling during the data collection and analysis. Finally, rich descriptions allow the researcher to provide detailed contextual descriptions of participants' accounts, allowing readers to evaluate the potential transferability of findings.

Establishing credibility is crucial for internal validity in qualitative research. These ongoing verification strategies will help substantiate that findings authentically represent participants' perspectives and the phenomenon under study. Adhering closely to these procedures will produce results with strong credibility.

### **Transferability**

Transferability in qualitative research is about the ability of the findings to be relevant in other similar situations based on the judgment of the reader (Creswell & Poth, 2018). Several strategies will be utilized to enhance the potential transferability (external validity) of findings from this research. Firstly, varied sampling will be employed, recruiting participants from diverse organizations, age groups, and genders. This maximizes the range of perspectives and experiences related to introverted virtual communication. Secondly, a rich, thick description will be provided, including detailed descriptions of the research context, participant demographics, interview settings, and emerging themes, allowing readers to assess the applicability of findings to other settings. Thirdly, a detailed methodology will be documented, thoroughly outlining all

procedures, protocols, and analysis steps, enabling other researchers to replicate the study methodology if desired.

While the insights from a qualitative sample are not statistically generalizable, these techniques aim to produce a comprehensive, heterogeneous account of participant experiences. Readers can evaluate the degree of fit or alignment with their own situations. The findings will uncover themes and dynamics transferable to introverted leaders in other virtual or hybrid work environments.

### **Dependability**

Dependability in qualitative research refers to the consistency and reliability of the findings - that is, whether the study could be repeated by other researchers and yield similar results. The following strategies will be used to enhance dependability. An audit trail, comprehensive documentation of all components of the research process, including raw data, field notes, archives, documentation of methods and procedures, reflexive journals, and more, will be maintained. This clear outline of the data collection and analysis steps provides a basis for others to replicate the study. The researcher will also employ a code-recode strategy, coding a subset of data, waiting several weeks, and then re-coding the same data set, with the compared results helping to confirm coding reliability. Furthermore, analysis procedures will undergo peer examination, being reviewed by qualitative research peers to evaluate and provide critical feedback on the process. Finally, a detailed methodology will be outlined, thoroughly documenting the research design, procedures for participant selection, data collection protocols, and analysis techniques, allowing future researchers to assess consistency.

By clearly documenting each phase of the IPA research process, the study's dependability will be strengthened. Adhering closely to quality procedures will enable others to more easily

understand, critique, and recreate elements of this study on introverted leadership communication.

### **Confirmability**

Confirmability in qualitative research refers to the degree to which the results could be confirmed or corroborated by others. It is the qualitative counterpart to objectivity in quantitative research. Several procedures will be implemented to support the confirmability (objectivity) of findings from this IPA study. Researcher reflexivity will be practiced by maintaining a reflexive journal throughout data collection and analysis to document reactions and assumptions and develop insights. This self-reflection provides transparency around how positionality may shape interpretations. Triangulation will also be employed, comparing evidence from different data sources, such as interviews, observations, and documents, to reduce reliance on a single data point.

Tactics to support confirmability reinforce that findings reflect participants' perspectives rather than researcher biases. Maintaining this objectivity is key for sound qualitative research.

### **Threats to Validity**

#### **External Validity**

The specific group of introvert PMLs selected for the study may react differently to the virtual work environment than other potential groups, making it challenging to generalize the results. To mitigate this limitation and enhance the transferability of findings, the study will employ a purposive sampling strategy to ensure a diverse sample of introverted PMLs.

Participants will be recruited from a range of industries, organizational contexts, and project domains to capture varied backgrounds and experiences. Additionally, efforts will be made to achieve a balanced representation in terms of demographic factors such as age, gender, and

ethnicity. By incorporating this diversity within the sample, the study aims to provide a more comprehensive understanding of the unique communication behaviors and challenges faced by introverted leaders in VWEs, thereby increasing the potential for resonance and relevance across different contexts (Rosenbaum, 2002). While generalizability remains a concern in qualitative research, a diverse and purposefully selected sample can enhance the transferability of insights to other settings and populations with similar characteristics.

The communication observed and analyzed might be too specific to the particular tools or platforms used in the VWE during the study (Gallagher, 2000). The study will gather data from multiple virtual communication platforms and ensure that findings are derived from general behaviors rather than platform-specific features (Roberts et al., 2021).

The virtual setup or arrangement for data collection could influence participant behavior. For instance, knowing that their virtual meeting is being observed might cause them to communicate differently. Transparent and retrospective consent will be used. This way, the genuine, unaffected behavior is captured.

Ensuring external validity is paramount to making reliable inferences from the study and applying them to broader contexts. By identifying and addressing potential threats, this research aims to offer insights into the communication of introverted PMLs in VWEs that can be generalized and used for practical applications in diverse settings.

### **Internal Validity**

Events occurring concurrently with the study may affect participants' behavior, leading to inaccurate conclusions about the cause-effect relationship (Shadish, Cook, & Campbell, 2002). By employing a short-duration, intensive study design, we can minimize the potential impacts of

external events. Additionally, documenting potential significant events during the study period can help in later analysis and interpretation (Levin, 2006).

Participants chosen due to their extreme scores or behaviors may regress toward the mean on subsequent measurements, leading to misleading results (Gottman, 1995). By using a well-defined selection criterion rather than extreme scores and by ensuring larger sample sizes, the regression threat can be diminished (Kazdin, 2003).

If participants drop out of the study, it might result in a non-representative sample, influencing the results (Shadish et al., 2002). Addressing the Threat: Regular check-ins, reminders, and perhaps incentives can be used to retain participants. Analyses will also be conducted to identify any systematic patterns in dropouts (Rubin & Babbie, 2006).

Making correct inferences regarding the observed cause-and-effect linkages depends on a study's internal validity. Identifying possible threats that can be prevented to support internal validity keeps the study's information reliable about what introverted PMLs use to talk to each other in VWEs.

### **Construct Validity**

Construct validity is foundational to the integrity of research. To mitigate threats to construct validity, the research has employed some qualitative methods designed to capture the depth and complexity of communication under introverted leadership in virtual teams. In-depth interviews with introverted project management leaders illuminate the effectiveness of various communication strategies. Furthermore, the study adopts triangulation by incorporating document analysis that enhances the credibility and reliability of the findings. This approach ensures that the constructs of introverted leadership and virtual employee engagement are not only theoretically grounded but also reflected in the lived experiences of the participants.

Through this methodology, the study strives to offer actionable insights into optimizing communication practices that align with the intrinsic qualities of introverted leaders, thereby fostering a more engaged and productive virtual workforce.

### **Ethical Procedures**

All data, whether primary or archival, will be treated with the utmost confidentiality. Participants' identities will remain anonymous throughout the research process and in any subsequent dissemination of findings. To ensure confidentiality, several measures will be implemented. First, any potential identifiers, such as names, organizational affiliations, or specific project details, will be redacted or coded to protect participant identities (Smith, 2008). Pseudonyms or unique identifiers will be assigned to each participant, and a separate key linking these identifiers to actual identities will be stored securely and accessed only by the primary researcher.

Furthermore, all physical and electronic data, including transcripts, notes, and audio/video recordings, will be stored electronically under a passcode and accessible only to the research team through secure passwords. Any hard copies of data will be kept in a locked cabinet within a secure location. Participants will be assured of the confidentiality measures in place, and their voluntary consent to participate will be obtained before data collection commences. While direct quotations from participants may be used to illustrate findings, care will be taken to ensure that these quotes do not inadvertently reveal identifiable information.

Upholding confidentiality is not only an ethical imperative but also crucial for establishing trust and rapport with participants, thereby enabling the collection of rich data. By implementing confidentiality protocols, the researcher demonstrates a commitment to protecting participant privacy and fostering an environment conducive to open and honest dialogue.

An informed consent form will be provided to all participants. In the case of participant refusal or early withdrawal, they will face no penalties. Should any predictable adverse events occur, participants will have access to counseling services.

All data will be stored in encrypted files on a password-protected computer. Only the primary researcher will have access to this data. Plans for data dissemination will exclude any personally identifiable information. All data will be destroyed five years post-study completion through secure digital deletion methods.

Any potential conflicts of interest have been disclosed. Measures, such as anonymous data collection, will be in place to prevent power differentials from affecting participants' responses.

### **Summary**

Chapter three outlined the interpretive phenomenological analysis methodology that will be used to explore the communication and strategies employed by introverted PMLs to engage virtual employees. The rationale highlighted why a qualitative approach is best suited to provide an in-depth understanding of this leadership phenomenon. My role as an observer-participant was discussed along with strategies to manage bias. Semi-structured interviews will serve as the primary data source, supplemented by observations and field notes. The analysis will involve inductive coding procedures to derive themes related to introverted communication patterns and their use for virtual employee engagement. Multiple verification strategies were outlined to establish the trustworthiness of findings, including member checks, triangulation, peer debriefing, and maintaining an audit trail. Ethical considerations were also addressed.

As Chapter Three outlined the IPA methodology that will be rigorously applied to explore the essence of introverted PMLs' experiences with communication and strategies for

engaging employees in a VWE, Chapter Four will present the key findings that emerge from the analysis of the qualitative interview data. Grounded in participants' firsthand accounts, Chapter Four will provide rich descriptions of introverted PMLs' perspectives, behaviors, and adaptations related to communicating in increasingly virtual environments. The findings will illuminate themes related to communication preferences, strategies found effective for employee engagement under introverted virtual leaders, and necessary adaptations to maintain engagement across varying levels of workplace virtuality. Interpretive phenomenological analysis of the interview transcripts, observations, and field notes will yield crucial insights to address the study's research questions regarding the intricate dynamics of introverted leadership communication within VWEs.

## **CHAPTER 4: FINDINGS**

This chapter aims to provide a clear, complete, and valid representation of the data that emerges as a result of the study, utilizing effective graphs, charts, and other visual representations to illustrate the data. The findings present objectively, without speculation, and free from researcher bias. The focus is on the data collected from interviews with introverted Project Management Leaders (PMLs) and their communication strategies to engage employees in Virtual Work Environments (VWEs). The data is systematically organized and analyzed to reveal patterns and insights into how introverted leaders manage communication and foster employee engagement in a virtual setting.

### **Research Setting**

For this study on introverted Project Management Leaders (PMLs) in Virtual Work Environments (VWEs), several personal and organizational conditions were identified that potentially impacted the participants and their communication strategies. Most participants experienced a significant shift to remote work due to the COVID-19 pandemic. Virtual communication tools became the norm, requiring leaders to become more adapt to these tools. When VWEs became the standard, the playbook for effective team leadership was rewritten; it was no longer about walking the office floor, but understanding how to inspire your team from a distance.

As introverted project management leaders, participants naturally preferred certain communication methods over others. Their managers' comfort with structure and individual interactions plays a significant role in shaping their approach to virtual teams. While these preferences are intrinsic to their personality, the added stressors of a global crisis and rapid

organizational changes might have amplified these tendencies, influencing their overall leadership effectiveness.

### Demographics

This study examines a diverse group of eight participants, all of whom exhibit introverted personality traits, according to the Myers-Briggs Personality Test completed by each participant and work in leadership roles within various industries. The participants' demographics and characteristics (Table 4.1) offer valuable insights into the background of introverted project management leaders engaging with virtual employees.

Table 4.1  
Participants Demographic Data

Number	Pseudonyms	MBTI Personality Code	Introversion Scale %	Years Experience	Age	Gender	Employee Organization	Found on:
1	Mike	ISTJ	44%	6	58	M	Telecommunications	LinkedIn
2	Carol	ISTJ	28%	5	39	F	Telecommunications	LinkedIn
3	Greg	INFP	46%	6	43	M	Telecommunications	LinkedIn
4	Marcia	ISTJ	28%	23	53	F	Real Estate	LinkedIn
5	Peter	INTP	32%	13	39	M	Real Estate	LinkedIn
6	Jan	ISTJ	36%	9	42	F	Digital Banking Software	LinkedIn
7	Bobby	INFJ	39%	11	50	M	Telecommunications	LinkedIn
8	Cindy	INTJ	34%	5	37	F	Mortgage Banking	LinkedIn

The participants range in age from 37 to 58. The gender distribution is balanced, with four male and four female participants. This diverse age range and equal gender representation seeks to provide a balanced perspective on introverted leadership across different generational and gender experiences.

All participants fall within the introverted spectrum of the Myers-Briggs Type Indicator (MBTI). The majority (4 out of 8) are classified as ISTJ (Introverted, Sensing, Thinking, Judging), while the remaining participants represent INFP (Introverted, Intuition, Feeling, Perceiving), INTP (Introverted, Intuition, Thinking, Judging), INFJ (Introverted, Intuition Feeling, Judging), and INTJ (Introverted, Intuition, Thinking, Judging) types. The introversion

scale for these participants ranges from 28% to 46%, indicating varying degrees of introversion within the group (see Table 4.1).

The study's participants bring their experience to the research, with their professional backgrounds spanning from 5 to 23 years in the field. This wide range provides a comprehensive view of leadership across various career stages, from those relatively new to management roles to seasoned veterans with decades of experience. The participant pool represents a balanced mix of early, mid, and late-career leaders. This diversity in experience levels offers a unique opportunity to explore how introversion manifests in leadership communication at different points in a leader's journey. As leaders progress through their careers, they likely develop and refine their communication strategies, and this study allows researchers to examine how introverted leaders navigate these changes over time.

The participants work across several industries, including Telecommunications (4 participants), Real Estate (2 participants), Digital Banking Software (1 participant), and Mortgage Banking (1 participant). This diverse industry representation enables the study to examine introverted leadership communication strategies across different professional contexts. All eight participants were found through LinkedIn, highlighting the importance of professional networking platforms in identifying and recruiting introverted leaders for research studies.

This group of participants provides a rich and diverse sample for exploring how introverted project management leaders communicate with and engage virtual employees. Their varied backgrounds, experiences, and industry contexts offer the potential for uncovering valuable insights into effective leadership communication strategies for introverted individuals in virtual work environments.

## Data Collection

This study employed an interpretative phenomenological analysis (IPA) approach to explore the communication strategies of introverted Project Management Leaders (PMLs) in virtual work environments (VWEs). The primary data collection method was semi-structured interviews, conducted virtually due to the nature of the research focus and the geographical dispersion of participants.

This study involved 8 participants (Table 4.2). Data was collected through semi-structured interviews that lasted approximately 29 to 35 minutes and were conducted between June 11 and June 17, 2024.

Table 4.2  
Participants Data Collection

Number	Pseudonyms	Date of Interview	Time of Interview	Duration of Interview	Frequency of Interviews	Participant Location during Zoom Interview
1	Mike	Thursday, June 13, 2024	12:00 PM	20:03.0	1	Nashville, TN
2	Carol	Wednesday, June 12, 2024	2:00 PM	34:43.0	1	Murfreesboro, TN
3	Greg	Tuesday, June 11, 2024	3:00 PM	34:06.0	1	Wilmington, NC
4	Marcia	Tuesday, June 11, 2024	8:45 AM	32:10.0	1	Wilmington, NC
5	Peter	Friday, June 14, 2024	8:00 AM	33:28.0	1	Charleston, WV
6	Jan	Saturday, June 15, 2024	2:00 PM	31:14.0	1	Raleigh, NC
7	Bobby	Monday, June 17, 2024	3:00 PM	35:21.0	1	Tampa, FL
8	Cindy	Sunday, June 16, 2024	6:00 PM	29:11.0	1	Albany, NY

Each interview was recorded using Zoom. The locations varied, with participants joining from different cities across the United States, including Nashville, TN; Murfreesboro, TN; Wilmington, NC; Charleston, WV; Raleigh, NC; Tampa, FL; and Albany, NY. All interviews were recorded using Zoom's built-in recording feature, which captured audio data. The recordings were then transcribed to create verbatim written transcripts, facilitating detailed analysis of themes related to introverted communication and strategies in virtual settings.

The data collection process appears to have closely followed the plan outlined in Chapter Three. The use of Zoom for interviews, the semi-structured format, and the duration of interviews all aligned with the proposed methodology. The actual number of participants (8) fell within the planned range of 8-10, indicating successful recruitment efforts.

The consistency in interview duration and the use of appropriate recording technologies ensured the capture of high-quality data for subsequent analysis. This robust data collection process provides a solid foundation for exploring the communication strategies of introverted leaders in virtual work environments.

### **Data Analysis**

The data collection process followed the plan presented in Chapter Three, with no significant variations mentioned. This study employed an interpretative phenomenological analysis (IPA) approach to explore the communication strategies of introverted Project Management Leaders (PMLs) in virtual work environments (VWEs).

The researcher began by transcribing each interview, creating a foundation for deep analysis. After the interviews were transcribed, member checking was executed to verify the participants' interview transcripts. Participants were given the opportunity to review their transcripts to ensure accuracy and intended meanings. No clarifications were needed, and the feedback from each participant was that the information received was documented correctly.

The first step of the coding analysis was reading and re-reading the interview transcripts in preparation for the initial noting and open coding of the data analysis plan (Smith et al., 2022). These initial steps laid the foundation for the researcher to immerse themselves in the data and become familiar with each participant's responses to the interview questions.

The second step is the exploratory noting stage. This stage was done to label primary ideas (Smith et al., 2022). Exploratory noting allows the researcher to start recognizing patterns and themes in the data by categorizing information based on similarities and differences (Merriam & Tisdell, 2016). This phase was exploratory and helped in developing a preliminary conceptual framework that guided the subsequent analysis. The researcher created an initial framework that included categories like "communication preferences," "instant communication tools," "introverted traits and challenges," and "preparation strategies." This framework evolved as more data was analyzed.

The third step of the data analysis plan is constructing experiential statements (Smith et al., 2022). This step was performed to group these initial codes into broader themes or categories (Merriam & Tisdell, 2016; Smith et al., 2022). This step was crucial in transforming fragmented insights into a more structured understanding of the data. Categories like "Virtual Communication Strategies," "Personal Connections," "Engagement Techniques," and "Adaptations to Virtual Environments" emerged, providing a framework for deeper analysis. This coding was conducted to refine these categories and identify overarching narratives or patterns (Merriam & Tisdell, 2016; Smith et al., 2022).

The fourth step is searching for connections across experiential statements. The researcher searched for connections across experiential statements with all the interviews (Smith et al., 2022). Searching for connections across interviews is vital for ensuring the validity and depth of the findings. A notable pattern was the preference for asynchronous communication tools like Slack, Google Drive, and Microsoft Teams. This finding highlighted a key strategy employed by introverted PMLs to navigate virtual leadership roles.

The fifth step of the data analysis plan is naming the personal experiential themes and consolidating and organizing them in a table (Smith et al., 2022). This step was initiated by a bracketing technique that reviews the themes and also sets aside personal experiences and preconceptions, ensuring they did not influence the research process (Fischer, 2009).

Step six is continuing the individual analysis of other cases. This step is necessary to find patterns of shared higher-order qualities across cases (Smith et al., 2022). Several recurring themes emerge across these interviews, including "personalized communication," "structured interaction," and "empathetic listening." By systematically comparing these themes, it became evident that while personalized communication is a strategy among the participants, the specific implementation methods differ. For instance, some participants prefer one-on-one video calls to build deeper connections with team members, while others rely on emails or instant messages to convey their messages effectively. This variation highlights the importance of individual preferences and strengths in communication styles (Smith et al., 2022).

The final step in the coding process is working with personal experiential themes to develop group experiential themes across cases (Smith et al., 2022). This step is crucial to deepen the analysis by utilizing metaphors and temporal referents and by importing other theories as a lens through which to view the analysis (Smith et al., 2022). Six main themes developed and can be reviewed in Appendix M. These themes encapsulated the core experiences and strategies of introverted PMLs in virtual environments.

### **Evidence of Trustworthiness**

#### **Credibility**

The implementation of credibility strategies outlined in Chapter Three proceeded largely as planned, with minor adjustments made to enhance the study's rigor. Transcript review proved

invaluable, with participants reviewing their interview transcripts promptly after each session. Technical terms relevant to leadership roles were the primary focus of a few small-scale refinements, which were swiftly integrated into the process.

Researcher reflexivity was maintained through regular journaling throughout the data collection and analysis phases. The assumption that extroverts make better leaders (Grant et al., 2011) was challenged, highlighting the unique strengths introverts bring to top positions (Cain, 2013).

A faulty assumption that extroverts make better leaders was eluded to be false, revealing introverts' unique strengths in top positions.

### **Transferability**

Detailed accounts of each participant's organizational context were documented, including the size of their teams, the nature of their virtual work environments, and the specific challenges they faced as introverted leaders. As patterns emerged during analysis, the researcher examined them with direct words and genuine experiences from participants, achieving a factual account of the phenomena under study. As the researcher implemented these strategies, the focus remained on crafting a precise representation of participant stories.

### **Dependability**

A reflexive journal was kept, documenting personal observations, methodological decisions, and emerging interpretations. All documents related to data analysis, including initial coding schemes, theme development, and revisions, were systematically archived. With this comprehensive documentation, researchers can quite literally follow in the footsteps of the original study. The code-recode strategy was employed as planned.

The participant selection criteria, interview protocols, and data analysis techniques were outlined in detail. There were no follow-up interviews needed to clarify or deepen any insights from the initial interviews.

### **Confirmability**

Confirmability in qualitative research referred to the degree to which the results could be confirmed or corroborated by others. It was the qualitative counterpart to objectivity in quantitative research. Several procedures were implemented to support the confirmability (objectivity) of findings from this IPA study. Researcher reflexivity was practiced by maintaining a reflexive journal throughout data collection and analysis to document reactions and assumptions and develop insights. This self-reflection provided transparency around how positionality might shape interpretations. Tactics to support confirmability reinforced that findings reflected participants' perspectives rather than researcher biases. Maintaining this objectivity was key for sound qualitative research.

### **Study Results**

The study's findings are represented by the ultimate overarching concepts that emerged from the analysis. These concepts are derived from synthesizing the diverse narratives of individual participants into a cohesive, comprehensive portrayal. The aim is to organize the collected information into a broad characterization of the phenomenon under investigation while ensuring that all participants' varied perspectives and lived experiences are accurately reflected. Each participant's key concepts (Appendix E through L) are illustrative quotes that demonstrate how these concepts were identified and developed through the analysis process.

**Mike**

Mike describes a communication ecosystem dominated by digital tools. Slack emerges as the primary platform for daily interactions, accounting for the majority of conversations. This is supplemented by email, phone calls, and video conferencing, with the latter offering flexibility in terms of camera usage.

As an introverted project management leader, Mike finds comfort in the virtual environment. Mike stated, “I tend to use electronic messaging because I'm more comfortable with it.” The reduced face-to-face interaction in virtual settings appears to ease some of the anxieties he might experience in traditional office environments.

Despite this preference, Mike emphasizes the importance of personal connections in team management. Mike expressed, “I want to try to get to know my team more on a personal level so that we can do things, explore areas that pique both of our interests and try to find common ground where we both like doing things.” He actively seeks to engage with team members on a personal level, exploring common interests and tailoring activities to suit the team's preferences. These efforts range from sharing personal views outside office windows to organizing virtual scavenger hunts, all aimed at recreating a sense of a shared work environment and fostering team cohesion.

Mike demonstrates adaptability in his communication approach, particularly when dealing with varying degrees of virtuality. He pays close attention to the nuances of virtual communication, such as being more conscious of facial expressions during video calls and focusing on voice inflections when cameras are off. This adaptability extends to meeting structures, where he opts to break larger groups into smaller ones to facilitate more personalized conversations and mitigate his introverted tendencies.

Preparation plays a key role in Mike's virtual management strategy. He ensures materials are prepared in advance, and technology is properly set up, contributing to a seamless and relaxed virtual meeting environment. Mike said, "I prepare my materials ahead of time and make sure my technology is set up and working correctly so that everything's seamless." This preparation, combined with the nature of virtual interactions, seems to reduce the anxiety he might otherwise experience in face-to-face settings.

Interestingly, Mike doesn't perceive his introverted nature as a significant challenge in engaging employees virtually. Mike expressed that, "I don't have the same anxieties that I might in a face-to-face setting or in a big group." Instead, he focuses on the challenge of maintaining engagement with his seasoned team, constantly seeking new ways to keep them involved and interested.

To gauge employee engagement, Mike relies on company-wide anonymous surveys, such as those conducted by Gallup. He values these quantitative metrics and feedback mechanisms, suggesting that more frequent or specific surveys could be beneficial.

Throughout the interview, Mike's responses reveal a leader who has found ways to leverage the virtual environment to his advantage as an introvert. His approach combines technological proficiency, personal engagement strategies, and a willingness to adapt, all underpinned by a clear understanding of his own communication preferences and strengths in a virtual setting.

### **Carol**

Carol describes a multitude of virtual communication tools in her workplace. She mentions the use of Slack for internal chatting, Gmail for email correspondence, and platforms like Webex or Google Meets for virtual phone calls and video conferences. Google Drive is

utilized for collaborative work on documents and presentations. Additionally, Carol's department employs a workflow management system that facilitates interdepartmental communication and maintains detailed records of tasks and responses.

As an introverted leader, Carol expresses a preference for quick, written communications such as emails or Slack messages over phone calls. Carol stated, "Sometimes a phone call makes more sense, though sometimes a call is needed. But if it can be done within a Slack or a quick email, I'm probably more inclined to do that instead."

Carol emphasizes the importance of maintaining personal connections in a virtual environment. She strives to keep conversations light and incorporate non-work-related discussions to bridge the gap created by the lack of casual in-person interactions. When asking Carol about her strategies for engaging her employees, she stated, "I try to keep that personal connection in there." This approach aims to recreate the informal connections that would naturally occur in a physical office setting.

Interestingly, Carol doesn't significantly alter her communication approach based on team members' work locations virtually. She does, however, note the importance of being mindful of audio quality issues that can arise in virtual settings, such as when multiple in-office team members attempt to use a single phone for conference calls.

Carol takes an active role in planning engagement activities for her team. She organizes games like Pictionary, scavenger hunts, and trivia for team meetings conducted over Webex. For department-wide activities, she often focuses on volunteer work or collaborative efforts like charity walks where team members log onto their phones to walk together via the mobile phone camera.

Reflecting on her introverted nature, Carol admits, “I tend to go more with written communication as opposed to verbal communication, and I'm really bad at trying to figure things out myself before reaching out to someone and fear that I might be bugging them. Yeah, that's probably the most impactful things that hold me back or whatever.” She acknowledges that this self-reliance can sometimes hold her back.

When the transition to remote work occurred, Carol adapted by increasing the frequency and duration of team meetings. Carol admitted that, “I think when we first went home, we were used to having team meetings every other week, and it would be 30 min every other week. I increased the meetings, and those were for 1 hour.” She incorporated various engagement activities into these meetings, such as role-playing scenarios, virtual scavenger hunts, and trivia games, all aimed at fostering team interaction and breaking up the work routine.

Carol expresses a personal discomfort with being on camera during video calls and, as a result, doesn't mandate camera use for her team. Carol stated, “I don't like to get on camera, so I don't force it on my team to do it.” She recognizes, however, that encouraging video participation might increase engagement and reduce multitasking during meetings.

Regarding metrics for employee engagement, Carol doesn't rely on formal measurements. When asked Carol if she uses any metrics to gauge employee engagement, she stated, “There were no metrics per se. I would vigilantly monitor the Slack channels, not just for the sake of it, but because I genuinely cared about everyone's engagement.” Instead, she closely monitors team interactions in Slack channels and reaches out individually to team members who seem less engaged, demonstrating a personalized approach to maintaining team cohesion and well-being.

Throughout the interview, Carol's responses reveal a leader who has found ways to leverage the virtual environment while accommodating her introverted tendencies. Her approach

combines technological proficiency, creative engagement strategies, and a strong emphasis on maintaining personal connections, all underpinned by a clear understanding of her own communication preferences in a virtual setting.

### **Greg**

Greg primarily relies on Slack for communication, valuing its speed and ease of use. He appreciates that it eliminates the need for formal greetings and closures typically required in emails or phone calls. Greg expressed, “Slack is quick and easy. I send the message and I get a response. It takes out having to include greetings and closures you need to apply in an email or phone call.” This preference for instant messaging aligns with Greg's introverted nature, as he expresses feeling more comfortable behind a computer screen.

As an introverted leader, Greg finds that his personality helps him empathize with other introverts on his team. Greg stated, “I don't want to be on camera, so I'm not going to force anyone else to be on camera. It helps me to be a little bit more understanding. It helps you develop empathy for people who may not be the best at expressing themselves to other people and staying quiet.” He's mindful of not pushing team members into uncomfortable situations, such as mandating camera use during video calls. This empathy extends to understanding why team members might not immediately respond to messages, recognizing that it's often due to being busy rather than a personal slight.

Greg's primary strategy for engaging team members in a virtual setting is to build personal connections. Greg admitted, “My best strategy is to try to make everybody a friend. I try to get to know them on a personal level to get some of that awkwardness out of the way and learn that one person's sense of humor is not the same as the other.” He strives to get to know each team member on a personal level, adapting his communication style and sense of humor to

suit individual preferences. This approach helps break down barriers and creates a more welcoming environment for all team members.

In dealing with varying degrees of virtuality in the workplace, Greg demonstrates flexibility in his communication approach. He tailors his interaction style to match the preferences of each team member, whether that means being more energetic with outgoing individuals or opting for text-based communication with those who dislike meetings. To accomplish this, he stated, “I adjust my way of dealing with that person. If I have a more outgoing person that I need to communicate with, I try to be a little bit more outgoing myself and a little bit more bubbly and energetic.” This personalized approach aims to facilitate easier communication for each team member.

Interestingly, Greg doesn't extensively prepare for communication or engagement activities. Greg advised, “I don't prepare too much. I think if you overly prepare, you can come across as fake to certain people.” Instead, he aims for a more natural, relatable approach, only ensuring he has the necessary materials and a notepad for jotting down important points.

Greg's introverted nature has positively impacted his approach to virtual communication. Having been comfortable with digital communication since his teenage years, he finds the virtual environment natural and conducive to his working style. Greg said, “I've been using Instant Messenger since I was about 13 or 14 years old when I was using the email system. I've always been more comfortable behind the computer.” However, he acknowledges the challenges faced by more extroverted employees who thrive in busier, in-person environments.

The transition to a fully remote work setting prompted Greg to adapt his communication strategies. He introduced virtual games and encouraged personal updates during team meetings

to maintain social connections. These activities, such as sharing pictures of desk items for team guessing games, helped bridge the gap created by the lack of in-person interactions.

Despite his comfort with virtual communication, Greg admits to struggling with leading meetings. Greg expressed, “I have a hard time leading meetings or being in charge of a meeting because it's all on me. I am always worried that I’m going to mess up and everybody’s going to laugh at me.” He experiences anxiety about potential mistakes and finds small talk challenging. This self-doubt leads him to prefer behind-the-scenes roles rather than being the focal point of meetings.

Notably, Greg doesn't utilize specific metrics or feedback methods to gauge employee engagement. Greg said, “I've never been a fan of Metrics and haven’t looked for ways to measure employee engagement.” This lack of formal measurement tools suggests an area for potential improvement in his management approach.

Throughout the interview, Greg's responses reveal a leader who leverages his introverted nature to create an empathetic, personalized approach to virtual team management. His strategy focuses on building personal connections, adapting communication styles to individual needs, and creating a comfortable virtual environment for his team members.

## **Marica**

Marcia primarily uses Zoom and Microsoft Teams for virtual communication in her industry. As an introverted leader with a strong Type D personality, she finds virtual communication challenging. She struggles with maintaining focus and giving adequate attention to team members on screen, noting that her natural tendency is to prioritize task completion over extended interaction. Marcia is particularly aware of the difficulties in maintaining eye contact during video calls, recognizing the disconnect between looking at someone's eyes on screen and

appearing to make eye contact through the camera. She expressed, “I think when cameras are on, I’m more obviously aware of what people can see what I’m doing or if I’m doing.”

To engage team members in virtual settings, Marcia emphasizes interactive approaches, especially in large group meetings. Marcia indicated, “I think that one of the things I like to do when I do a big group team meeting is that I like it to be interactive. And I know that’s hard when you get more people on the call, but I also think it’s important to get some feedback on what’s going on.” She sets clear agendas, encourages feedback, and invites participation through actions like raising hands. This strategy aims to increase engagement and make meetings more inclusive and productive.

Marcia’s communication style varies depending on her audience. With her staff, she’s more relaxed and open due to established relationships. However, when interacting with vendors or corporate representatives, she’s more cautious, feeling the weight of representing her company. In staff meetings, she tends to be more talkative, while in corporate calls, she’s more reserved, often preferring to listen and learn.

Preparation is key to Marcia’s approach. She researches topics thoroughly and keeps notes handy, regardless of whether the meeting is virtual or in-person. Marcia admitted, “I make sure I have notes handy in front of me. I am one of those people who like to review my notes, so I’m prepared for what I am going to talk about today.” This preparation helps her feel confident and ready to address any questions or issues that may arise.

Marcia’s introverted nature becomes more apparent when interacting with unfamiliar individuals, especially those she perceives as having similar job titles but different personalities. She stated, “I think my being an introvert definitely shows when I’m on a call with people that I don’t feel comfortable with.” Marcia sometimes struggles with feelings of inadequacy or not

belonging, which can lead her to let more dominant personalities control conversations in these situations.

To enhance engagement, Marcia employs creative strategies like using video communications with surprise tests and rewards. She focuses on creating concise, valuable content to maintain her team's attention. Regular Zoom sessions have become a key part of her communication strategy. These sessions include personal sharing segments and recognition of team achievements, creating a more intimate, coffee-shop-like atmosphere. She also states, “I also use these sessions to recognize team members for their achievements, both within and outside of real estate. This helps acknowledge their lives and contributions to the community beyond just their work performance.”

Despite these efforts, Marcia finds it challenging to gauge engagement in video calls. She misses the ability to read facial cues and body language effectively, noting that participants can easily become distracted or appear disengaged on video.

To measure engagement, Marcia utilizes quantitative metrics. She tracks attendee numbers and drop-off rates for live sessions and uses video analytics to monitor viewing patterns of her recorded content. Marcia acknowledged, “Our video platform, Bom-Bom, tracks how many people watch my videos and for how long. I can see the percentage of viewers who watched the entire video, which helps me judge the content's effectiveness.” These metrics help her assess the effectiveness of her communication strategies and guide future content creation.

Throughout the interview, Marcia's responses reveal a leader who is acutely aware of her introverted tendencies and actively works to overcome the challenges they present in a virtual environment. Her approach combines thorough preparation, creative engagement techniques, and

data-driven assessments to create an effective virtual communication strategy that accommodates both her introverted nature and the needs of her team.

### **Peter**

Peter primarily relies on email, text messages, and phone or video calls for virtual communication. Peter said, “As someone who prefers virtual communication, I find that the digital realm allows for a more comfortable and effective interaction.” He particularly values the ability to process thoughts internally before sharing them, which is facilitated by written communication methods like email and text.

To engage team members in a virtual setting, Peter implements a structured approach centered around weekly team meetings. These sessions serve as a cornerstone for virtual collaboration, providing regular opportunities for project progress presentations and issue reporting. Peter emphasizes the importance of these meetings in fostering accountability, transparency, and open communication among team members.

When dealing with varying degrees of virtuality in the workplace, Peter adapts his communication approach accordingly. He recognizes the value of video calls in maintaining a sense of connection and engagement. Peter stated, “These monthly video meetings are a valuable opportunity for everyone to come together, share updates, and discuss any issues face-to-face, even through a screen. It helps build camaraderie and ensures that everyone feels a part of the team despite the physical distance.” During these calls, he utilizes screen-sharing extensively, particularly for visual explanations and training purposes.

Peter's preparation for virtual communication and engagement activities is meticulous. He creates detailed meeting agendas with clear objectives and time allocations, relying heavily on his calendar for organization and time management. Peter added, “Before any scheduled

meeting, I outline the main topics we need to cover, set clear objectives, and allocate time for each discussion point.” Before meetings, he reviews previous notes and action items to ensure continuity and follow-up on unresolved issues.

As an introvert, Peter finds the virtual environment more conducive to his working style compared to a traditional office setting. He leverages written forms of communication like emails, instant messaging, and project management tools, which allow him to articulate his thoughts clearly and concisely. While he uses video calls strategically, he ensures they are purposeful and structured.

To adapt his communication strategy in a more virtual setting, Peter has leveraged Customer Relationship Management (CRM) systems for task management and implemented digital charts for project visualization. Peter advised, “The combination of CRM task management and digital charts significantly improved our team's engagement and productivity in the virtual setting.” These tools have allowed him to maintain oversight of project progress while reducing the need for frequent check-ins, aligning well with his introverted nature.

To address challenges in engaging employees virtually, Peter has introduced regular team surveys and established a system of one-on-one check-ins. These methods allow him to gather feedback and build stronger relationships with team members in a manner that suits his introverted communication style. He has also implemented tools to monitor employee productivity, aligning with his preference for data-driven approaches.

For gauging employee engagement, Peter relies on a combination of team surveys and one-on-one check-ins. These methods provide both quantitative and qualitative insights into team morale, job satisfaction, and individual experiences. Peter admitted, “These personal interactions are crucial for understanding the individual experiences of each team member.” The anonymity

of surveys encourages honest feedback, while personal check-ins allow for more in-depth discussions and tailored support.

Throughout the interview, Peter's responses reveal a leader who has effectively leveraged his introverted traits to create a structured, thoughtful approach to virtual team management. His strategies demonstrate a balance between utilizing technology for efficient communication and maintaining personal connections with team members, all while accommodating his own communication preferences and strengths as an introvert in a virtual leadership role.

### **Jan**

Jan utilizes a diverse array of communication tools in her virtual project management role, including Zoom for video conferencing, Slack for instant messaging and group chats, Smartsheet for project management, and Outlook for email. She also frequently uses screenshots to illustrate points when screen sharing isn't possible.

As an introverted leader, Jan tends to favor communication tools like Slack messages and Smartsheet comments over video calls. She appreciates the opportunity these platforms provide to carefully articulate her thoughts and convey messages more effectively. However, Jan recognizes the importance of adaptability and will offer Zoom calls when necessary, particularly if she senses miscommunication occurring.

To engage team members in a virtual setting, Jan employs a group Slack channel where both work-related questions and casual interactions, such as sharing memes, are encouraged. Jan stated, "I can @here the channel for announcements. I'll often say add an emoji to this if you read it to ensure the message was received and remains fun."

Jan's approach to managing varying degrees of virtuality in the workplace involves a mix of strategies. She conducts weekly internal project calls and multiple external project calls,

sending out agendas to ensure appropriate participation. For hybrid meetings, she books conference rooms with cameras to facilitate collaboration between in-person and remote participants. Jan consistently shares her screen and camera during Zoom calls to aid non-verbal communication.

Preparation is a key aspect of Jan's communication strategy. Before meetings or presentations, she ensures her Smartsheet dashboard is organized, thoroughly prepares and tests any demos, and maintains a professional appearance for video calls. Jan notes that she tends to invest more time in preparation than some peers, creating detailed PowerPoints for complex ideas and using annotated screenshots to convey information clearly.

Jan's introverted nature influences her approach to virtual communication in several ways. She prefers to spend less time speaking and more time accurately conveying her message through visual aids and detailed descriptions. This approach aims to minimize miscommunication and reduce the need for extended verbal explanations.

To address communication challenges, Jan has adapted her strategies as needed. For instance, when working with a client who struggled to understand weekly tasks, she began recording Zoom sessions for later reference and follow-up. She also started providing written summaries of tasks via email and tagging them in Smartsheet.

Jan acknowledges that her preference for text-based communication sometimes conflicts with team members who prefer video calls. To address this, she tries to offer choices in communication methods and makes an effort to be more proactive about in-person interactions with office-based colleagues.

To gauge employee engagement, Jan conducts sprint reviews at the end of each sprint cycle to gather feedback. She also considers project schedule adherence and risk levels as

indirect indicators of engagement. Weekly calls provide additional opportunities for ongoing feedback and engagement assessment.

Throughout the interview, Jan's responses shows a leader who leverages her introverted tendencies to create a thoughtful, well-prepared approach to virtual team management. Her strategies demonstrate a balance between utilizing technology for efficient communication and maintaining personal connections with team members, all while accommodating her own communication preferences and strengths as an introvert in a virtual leadership role.

### **Bobby**

Bobby primarily relies on quick, impromptu one-on-one meetings and instant messaging for communication in a virtual environment. He uses tools like Webex for virtual meetings and notes that email usage has significantly decreased in his communication approach.

As an introverted leader, Bobby describes his natural tendency to listen and ensure conversations flow properly. He emphasizes the importance of inclusivity, encouraging full participation and ideas from all team members. Bobby acknowledges that his introverted nature can sometimes pose challenges, particularly in environments where team members are hesitant to contribute. Bobby states, "I want there to be dialogue, negotiation, and come to a consensus where we can collectively agree on a path forward." However, he strives to create an atmosphere where everyone feels comfortable sharing insights and information.

To engage team members in a virtual setting, Bobby focuses on fostering collaboration and eliminating silos. He leverages instant messaging tools like Slack to keep everyone involved and feeling acknowledged. Bobby also emphasizes the importance of frequent one-on-one meetings and small group tactical discussions. Bobby emphasized, "It's small conversations, direct pointed conversations, short conversations, 15-minute meetings, 30-minute meetings,

where decisions are being made and things are getting put pulled together.” These shorter, more focused conversations allow for strategizing, alignment, and dissemination of information throughout the team.

When dealing with varying degrees of virtuality in the workplace, Bobby has adapted his approach. He color-codes meetings to better understand his audience and has become more flexible about camera use during video calls. Bobby also considers factors like time zones and dress codes, adjusting his approach based on the audience and the formality of the interaction. He stated, “I also don't require necessarily coming going on camera. There was a time where everybody had to jump on camera, so 1st thing in the morning, everybody getting ready, it's really being cognizant of that aspect of it are in different time zones and those types of things.”

Preparation is key to Bobby's communication strategy. For internal conversations, he often engages in preparatory micro-conversations through Slack before moving to larger meetings. He emphasizes the importance of having clear objectives and gathering background information to ensure productive discussions. Bobby described this by saying, “In terms of preparation, it's a lot of what I do, which is smaller, tactical preparatory conversations that occur prior to pulling a larger group together.”

Bobby's introverted nature significantly impacts his approach to virtual communication. He prefers smaller, preparatory conversations where he can ask questions and gather information before larger group meetings. This approach allows him to be better prepared and more effectively disseminate information to the entire team. He emphasized, “Because you have to now retract from all these people instead of working one-on-one with an individual, I am much better in those smaller conversations, where you can ask the questions, and then when you're going into the larger conversation, you're prepared, and you can disseminate that information and

goes out to everybody. And there may be things that come out of that larger conversation where you need to circle back on or take action on.” Bobby is not hesitant to cancel or postpone larger meetings if he feels more preparation is needed to avoid confusion and wasted time.

To adapt his communication strategy in different settings, Bobby has employed various techniques. In physical office settings, he favored quick desk huddles for team discussions. In the virtual environment, he uses Slack huddles and ensures written follow-ups and task tracking. He advised, “They're still not as meaningful and as impactful as when you're in a small group. It's almost like having a virtual meeting throughout the day with everybody, and then people can choose to join or not. They can listen in, listen to the conversation, and jump in if they want while they're on another call, adding context and conversation to it.”

Bobby acknowledges that one of his main challenges has been building rapport with larger groups, particularly with frontline staff. He finds it difficult to get to know individuals in large group settings and prefers one-on-one interactions. Bobby stated, “I don't necessarily like big groups. I'm better in one-on-one settings and creating those opportunities for one-on-ones and having specific conversations where they're more personal.” To address this, he's been focusing on creating opportunities for more personal, career-oriented conversations with team members.

Regarding metrics for employee engagement, Bobby takes a more subjective approach. He focuses on observing who provides insights, completes tasks, and takes accountability for action items. Bobby stated, “Your output shows and speaks for itself.” While he doesn't use formal metrics, he evaluates engagement based on output, effectiveness, and the quality of one-on-one interactions.

Throughout the interview, Bobby's responses reveal a leader who has leveraged his introverted tendencies to create a thoughtful, collaborative approach to virtual team management. His strategies demonstrate a balance between utilizing technology for efficient communication and maintaining personal connections with team members, all while accommodating his own communication preferences and strengths as an introvert in a virtual leadership role.

### **Cindy**

Cindy utilizes a range of communication and collaboration tools in her virtual workplace. She relies on Google Teams for chatting with colleagues across the company, Gmail for email correspondence, and platforms like Zoom or Google Meets for virtual phone calls and video conferencing. These tools offer flexibility, including the option to turn off cameras during calls.

As an introverted leader, Cindy finds virtual communication more comfortable and efficient. She appreciates the ease of sending messages and emails to team members when seeking answers. Cindy said, "I find it easier to communicate with my team virtually, because it's easier for me to send messages and emails to team members when I need answers" Additionally, Cindy values the ability to document interactions and responses, which aligns well with her preference for written communication.

To engage team members in virtual settings, Cindy employs several strategies. When facilitating calls, she prioritizes agenda items from most to least important. She also strategically calls on team members with relevant expertise to contribute to discussions rather than following a predictable order. Cindy illustrated this by saying, "When discussing agenda items, I often think of someone on the call that may be able to assist with issues that are being discussed and call on a particular person that specializes in the situation. Going down a list of names on the call or on an agenda is sometimes unavoidable, but I like to not keep a standard order so that

everyone needs to remain engaged and have their attention be devoted to the call.” This approach aims to keep all participants engaged throughout the call. Outside of scheduled meetings, Cindy uses instant messaging for quick check-ins with her team.

Cindy adapts her communication approach based on the scenario and audience. In large group calls, she maintains a more business-oriented tone. However, in smaller gatherings, she engages in "small talk" to build more personable relationships with team members. Cindy acknowledges feeling more reserved with unfamiliar individuals. She admitted, “I find myself more quiet and shy with people that I don't know well.”

Preparation is key to Cindy's communication strategy. She said, “I always draft an agenda to send out an hour before the call starts.” She is careful to avoid acronyms or department jargon that might confuse participants from other teams. Cindy also utilizes in-call polls or surveys to maintain engagement, especially during longer meetings where attention might wane.

Cindy's introverted nature significantly influences her approach to virtual communication. While initially hesitant to reach out for help, her project management training has improved this skill. She strongly prefers electronic communication over phone calls, noting that this aligns well with many colleagues' preferences and availability. Cindy stated, “I'd rather send an electronic communication versus picking up the phone to call someone. I find more times than not, people will not answer the call because they are either away from their desk, on another call, or frown upon a verbal conversation.”

To adapt her communication strategy and maintain engagement, Cindy has modified her approach to team updates during calls. Rather than following a predictable alphabetical order, she now randomly selects participants to provide updates. This method ensures that all team

members remain attentive throughout the meeting. Cindy advised, “It helps keeps everyone to pay attention to the call.”

Cindy faces challenges in engaging extroverted employees in the virtual environment. She notes that these team members often struggle with camera-off interactions, preferring face-to-face conversations. As an introvert who prefers electronic communication, Cindy finds it difficult to break her habit of avoiding camera use to accommodate these extroverted team members. She describes this by saying, “Because I do not want that face-to-face interaction, I find it difficult to break that habit of not using the camera and sticking with the electronic form of communication.”

Regarding metrics for employee engagement, Cindy doesn't employ specific quantitative measures. However, she solicits feedback from stakeholders at the end of each project. She stated, “At the end of each project, I send an email to all the stakeholders to ask for feedback regarding the project to help manage the next project created.” Cindy’s email to stakeholders covers aspects such as participation, call cadence, and lessons learned. Cindy acknowledges that developing a more formal measurement tool could be beneficial for ensuring positive employee engagement.

Throughout the interview, Cindy's responses reveal a leader who has effectively leveraged her introverted tendencies to create a structured, thoughtful approach to virtual team management. Her strategies demonstrate a balance between utilizing technology for efficient communication and maintaining personal connections with team members, all while accommodating her own communication preferences and strengths as an introvert in a virtual leadership role.

## Identified Key Themes

The overarching concept structures each participant's account. Every concept is presented alongside supporting evidence drawn from the study. This evidence comprises the respondent's statements and related experiences that substantiate their perspective. Each concept also illuminates its relevance to the research questions guiding the study. A visual representation of how individual participants' key concepts align with and contribute to the broader, synthesized concepts that emerged from the collective analysis can be found in Appendix M.

A prominent theme across all participants is the strength and comfortability with electronic communication. This suggests that introverted PMLs generally find virtual environments conducive to their communication preferences, allowing them to leverage their strengths in written and asynchronous communication.

Personal connections emerged as another significant theme, particularly emphasized by Mike, Carol, Greg, and Jan. This highlights the importance of maintaining interpersonal relationships despite the physical distance in virtual settings.

Adapting to the environment was a recurring theme for several participants, including Carol, Greg, Bobby, and Cindy. This indicates the need for flexibility and responsiveness to different virtual work scenarios and team dynamics.

Several participants, such as Mike, Marcia, and Jan, stressed the importance of visual cues in virtual communication. This was expressed through themes like encouraging camera use on calls, increasing cameras for eye contact, and screen sharing. These strategies aim to enhance non-verbal communication and engagement in virtual meetings.

Interactive participation was highlighted by Marcia, Peter, and Bobby, suggesting a focus on keeping team members engaged and involved during virtual interactions. Cindy specifically mentioned using random name selection on calls to maintain attention and participation.

Meeting preparation and structure were common themes, with several participants emphasizing the importance of meeting agendas, checking technology setups, and taking notes for talk-tracks. This reflects the need for thorough preparation in virtual environments to ensure smooth and productive interactions.

The impact of introversion on virtual communication varied among participants. While many reported feeling positively influenced by the virtual environment, noting less anxiety and a preference for written communication, others like Marcia expressed some negative influences, such as self-doubt when communicating.

Regarding employee engagement metrics, there was a notable lack of formal tools across most participants. Some, like Mike, Peter, and Cindy, mentioned using surveys for feedback, while others reported monitoring communication interactions or action items completed. Jan specifically mentioned using sprint reviews as a feedback method.

Introverted PMLs in virtual environments generally leverage their comfort with electronic communication while striving to maintain personal connections and adapt to varying virtual scenarios. They employ various strategies (Table 4.3) to enhance visual communication, encourage participation, and structure meetings effectively.

Table 4.3



While the virtual setting often aligns well with introverted tendencies, challenges remain in areas such as maintaining engagement and measuring team performance. The diversity of approaches highlighted in this summary underscores the complexity of managing virtual teams and the need for tailored strategies that account for both leader and team member preferences and needs.

### **Strength & comfortability with electronic communication**

Each participant identified a preference for or comfort with electronic forms of communication in the virtual work environment. This theme emerged consistently across their responses, highlighting how introverted leaders often leverage digital tools to enhance their communication effectiveness.

Mike articulated this preference clearly, stating, "I tend to use electronic messaging because I'm more comfortable with it." He noted that the virtual environment aligns well with his

communication style, reducing face-to-face interactions and allowing for more independent work time. Similarly, Peter was inclined towards digital communication methods, saying, "I find that the digital realm allows for a more comfortable and effective interaction." This preference for asynchronous communication tools was a recurring theme among the participants.

However, the participants also recognized the need for flexibility in their communication approaches. Jan mentioned, "I will offer a Zoom call if the other party wants one. If I feel like there is miscommunication, I'll switch to Zoom." This demonstrates an understanding that while electronic communication is preferred, adaptability is crucial for effective leadership.

The theme of strength and comfortability with electronic communication manifested differently for each participant, but it consistently emerged as a significant aspect of their leadership style in virtual environments. This preference for digital communication tools appears to be a common trait among introverted leaders, allowing them to leverage their strengths and manage their energy more effectively in leadership roles.

### **Personal Connections**

Each participant identified the importance of fostering personal connections with their team members in the virtual work environment. This theme emerged consistently across their responses, highlighting how introverted leaders strive to maintain and deepen relationships despite the physical distance.

Carol similarly recognized the value of personal connections, noting, "Think having that personal connection is important, so trying to keep some of the conversations light and, and airy." She highlighted the need to compensate for the lack of spontaneous interactions that typically occur in physical office spaces, such as break room conversations or hallway encounters.

Jan and Cindy both highlighted the use of digital tools to maintain personal connections. Jan mentioned using group channels for both work-related and casual interactions, saying, "Team members can ask work questions or also post silly memes." This approach blends professional communication with personal engagement. Cindy focused on maintaining individual connections through regular check-ins, stating, "I often send instant messages that are meant for check-ins to stay engaged with my team."

The theme of personal connections manifested differently for each participant, but it consistently emerged as a crucial aspect of their leadership style in virtual environments. Their efforts demonstrate an understanding that effective leadership in virtual settings requires intentional strategies to maintain and strengthen personal connections.

### **Adapt to Virtual Environment**

Several participants identified the need to modify their communication style to adapt the virtual environment and the specific context of their interactions. This theme emerged consistently across their responses, highlighting how introverted leaders adjust their approaches to ensure effective communication in various virtual settings.

Greg described a flexible approach tailored to individual team members' preferences. He explained, "I adjust my way of dealing with that person. So, if I have a more outgoing person that I need to communicate with, I try to be a little bit more outgoing myself and a little bit more bubbly and energetic." This adaptive strategy extends to the choice of communication medium, with Greg noting, "If I know someone doesn't like meetings, I won't throw a meeting on them; I'll just send them an email or send them a Slack message."

Mike admits that he joins in light-hearted teasing and joking during video calls. He stated, “ If I hear good-humor banter between other employees happening on the call, I try to join in as well to feel like I’m part of the group.”

Marcia highlighted how her communication style varies depending on the audience and context. She stated, "My interactions do vary depending on who I'm talking to. With my staff, I'm more relaxed and open because we know each other well. When dealing with vendors or corporate representatives, I'm more careful about my behavior and speech." Participants' awareness of different communication needs in various professional contexts was a recurring theme.

The theme of adapting the environment manifested differently for each participant, but it consistently emerged as a crucial aspect of their leadership style in virtual settings. These introverted leaders recognized the need to be flexible and adaptive in their communication approaches, tailoring their style to the specific context, audience, and technical constraints of virtual interactions. Their efforts demonstrate an understanding that effective leadership in virtual environments requires a nuanced approach that can adjust to the unique demands of each situation.

### **Meeting agendas**

Several participants identified specific approaches to preparing for and conducting virtual meetings, though their strategies varied considerably. This theme emerged consistently across their responses, highlighting how introverted leaders navigate virtual meeting environments' unique challenges and opportunities.

Carol's approach to meeting agendas centered on engagement activities, particularly for team meetings. She explained, "I would put together activities for my team meetings. I would put

together different games that we could play over web Webex during our 1 hour meeting like Pictionary or scavenger hunts or trivia." This strategy demonstrates a focus on maintaining team cohesion and motivation in virtual settings through interactive elements.

Peter emphasized a meeting agenda approach. He stated, "When preparing for communication or engagement activities in a virtual environment, I prioritize organization and clarity to ensure each interaction is productive and meaningful. One key tool I rely on is creating detailed meeting agendas." This consistency in preparation, regardless of the meeting format, was a unique perspective among the participants.

Cindy's response provided the most detailed insight into her meeting agenda strategy. She explained, "I always draft an agenda to send out an hour before the call starts. Depending on the audience, I try not to have acronyms or department jargon in my agenda to avoid confusion for teams that are not aware of my department terms." She also described using interactive elements like polls or surveys to maintain engagement during longer calls.

The theme of meeting agendas manifested differently for each participant, reflecting diverse approaches to virtual meeting preparation and execution. While some leaders emphasized thorough preparation and structured agendas, others preferred a more flexible approach.

### **Prefer written communication**

Several participants identified a preference for written communication in the virtual work environment, though their reasons and the extent of this preference varied. This theme emerged consistently across their responses, highlighting how introverted leaders often leverage written forms of communication to enhance their effectiveness and comfort in leadership roles.

Mike expressed a clear preference for virtual communication, stating, "I think it's better. I don't have the same anxieties that I might in a face to face setting or in a big group." This

sentiment was echoed by Greg, who noted, "I think it impacts mine in a positive way because I have always been more comfortable behind the computer screen and talking through email or instant messaging." Both leaders found that written communication allowed them to overcome some of the challenges they face in more traditional, face-to-face settings.

Carol explicitly stated her preference for written communication, saying, "I tend to go more with written communication as opposed to verbal communication." She also highlighted a tendency common among introverts to try to solve problems independently before reaching out, which written communication may facilitate.

Jan's response focused on the preparation aspect of written communication. She explained, "I like to prepare PowerPoints if conveying a more complex idea, I use screen shots with highlights and arrows, I use detailed descriptions." This approach allows her to convey information more accurately and efficiently, reducing the need for extended verbal explanations.

Cindy's perspective aligned closely with the others, noting, "Now that I'm virtual, I have been more comfortable in sending messages or emails. I'd rather send an electric communication versus picking up the phone to call someone." She also observed that this preference seems to be shared by many of her colleagues.

Interestingly, while Marcia and Bobby didn't explicitly state a preference for written communication, their responses suggested discomfort with certain aspects of verbal communication, particularly in group settings. Marcia mentioned feeling out of place in certain verbal interactions, while Bobby expressed a preference for smaller, more prepared conversations over large group meetings.

The theme of preferring written communication manifested differently for each participant, but it consistently emerged as a significant aspect of their leadership style in virtual

environments. For some, it provided a way to overcome social anxieties or discomfort with large group interactions. For others, it offered an opportunity for more thoughtful, prepared communication. All participants seemed to recognize the benefits of written communication in allowing them to leverage their strengths as introverted leaders.

This preference for written communication in virtual settings appears to be a common trait among introverted leaders, allowing them to communicate more comfortably and effectively. It provides them with the time and space to formulate their thoughts, reduces the immediate pressures of face-to-face interactions, and allows for more precise and considered communication. However, the responses also suggest an awareness of the need to balance this preference with other forms of communication to meet the diverse needs of their teams and organizations.

### **Surveys for Feedback**

Each participant identified different approaches to measuring and understanding employee engagement in their virtual work environments. This theme emerged with notable variations across their responses, highlighting the diverse strategies introverted leaders employ to gauge team involvement and satisfaction.

Mike mentioned the use of formal survey tools, stating, "We use the poll survey by Gallup. Those are sent out across the company to get feedback at every level of the business." He emphasized the importance of anonymity in these surveys, noting that it "gives everybody the freedom to express their thoughts." This approach to using standardized, company-wide surveys was unique among the participants.

Marcia described a more data-driven approach, focusing on quantitative metrics. She explained, "We track engagement by monitoring attendee numbers and drop-off rates. This helps

us gauge if the meeting is too long or if we're losing people at certain points." She also mentioned using video analytics to measure engagement, noting, "Our video platform, Bom-Bom, tracks how many people watch my videos and for how long."

Jan's approach combined formal and informal methods. She mentioned, "I do a sprint review at the end of each sprint to get feedback." She also noted that project progress and risk levels serve as indirect indicators of engagement.

Peter conveyed he has a formal approach as well. He explained, "One of the primary tools I use is team surveys."

In contrast, Carol's approach was more informal and personalized. She explained, "There were no metrics per se. I would vigilantly monitor the Slack channels, not just for the sake of it, but because I genuinely cared about everyone's engagement." Her strategy involved direct observation and proactive outreach, demonstrating a more intuitive approach to gauging team engagement.

Bobby's response highlighted a more subjective approach to assessing engagement. He stated, "NO to metrics, it's almost, but it's subjective, right?" He emphasized the importance of output and effectiveness rather than traditional engagement metrics, noting, "even though you may not be highly interactive, you're knocking it out of the park."

The theme of surveys and engagement measurement manifested differently for each participant, reflecting a range of approaches from formal, company-wide surveys to informal, intuitive assessments. Some leaders relied heavily on quantitative data, while others preferred qualitative observations or output-based evaluations. This diversity in approaches demonstrates that introverted leaders in virtual settings employ varied strategies to understand and foster team engagement, adapting their methods to their personal leadership styles and the unique needs of

their teams. The responses also suggest a potential area for development in virtual leadership practices, as several participants expressed interest in or need for more structured engagement measurement tools.

### **Summary**

As Chapter Four presented the key findings that emerged from the analysis of qualitative interview data with introverted Project Management Leaders (PMLs), Chapter Five will discuss the interpretation and implications of these results. The findings illuminated several important themes related to how introverted leaders navigate communication and employee engagement in Virtual Work Environments (VWEs), including their preference for electronic communication, strategies for building personal connections remotely, flexibility in adapting communication styles to different virtual contexts, approaches to structuring virtual meetings, and methods for measuring engagement.

Chapter Five will explore the significance of these findings in relation to the research questions and existing literature on introversion, leadership communication, and virtual work. It will examine how the results expand our understanding of effective leadership practices for introverts in increasingly prevalent VWEs. The discussion will consider practical implications for organizations and leaders adapting to more virtual work arrangements. Additionally, Chapter Five will address the limitations of the current study and propose directions for future research to further investigate introverted leadership in virtual settings. By synthesizing the rich qualitative data with relevant theory and prior studies, the final chapter aims to provide a comprehensive interpretation of how introverted PMLs can optimize their natural strengths to successfully engage employees and lead teams in virtual environments.

## CHAPTER 5: DISCUSSION

The purpose of this study was to describe, explain, and examine the link between how introverted PMLs communicate with their employees and how to engage those employees in VWEs. To that end, this research sought to answer two key questions:

RQ1: What communication do introverted PMLs use to engage employees in a VWE?

RQ2: What communication strategies support employee engagement most under introverted virtual leaders?

This chapter will interpret the findings in relation to these research questions, address the study's limitations, discuss their theoretical and practical implications, and propose directions for future research.

### Interpretation of Findings

The findings reported in Chapter Four provide valuable insights into the communication strategies employed by introverted PMLs in VWEs, addressing the study's two main research questions. The connections between the research questions, interview questions, interviewee responses, and general themes are represented in Appendix N and Appendix O.

Regarding RQ1, which asked about the communication methods used by introverted PMLs to engage employees in VWEs, the results revealed a strong preference for electronic and written communication. Participants consistently reported feeling more comfortable with digital tools such as email, instant messaging, and project management software. This aligns with the introverted tendency to prefer thoughtful, prepared communication.

The introverted project management leaders describe using a variety of communication tools in their virtual environments. These include instant messaging platforms like Slack, video conferencing tools such as Webex, email, and phone calls. Greg emphasizes the efficiency of

Slack for quick and easy communication, while Bobby mentions the importance of impromptu one-on-one meetings and the constant use of instant messaging throughout the day.

When discussing how being introverted influences their communication in managing virtual teams, the respondents generally express a preference for methods that align with their introverted tendencies. Mike notes that the virtual environment allows him to communicate in ways he's more comfortable with, often working alone. Carol and Cindy both express a preference for quick emails or instant messages over phone calls, appreciating the ability to document interactions and carefully compose their thoughts.

Preparation for virtual communication and engagement activities is a key theme among the responses. Peter, Bobby, and Cindy all mention the importance of creating detailed meeting agendas. These agendas help them stay focused, set clear objectives, and ensure that all participants are prepared to contribute effectively.

The project management leaders reflect on how their introverted nature impacts their approach to virtual communication. Carol mentions a tendency to rely on written communication and to attempt to solve problems independently before reaching out to others. Greg and Peter both express feeling more comfortable communicating through digital means, such as email and instant messaging, which allow them to convey their thoughts clearly and concisely.

Challenges in virtual communication due to introverted tendencies are also addressed. Bobby highlights the difficulty in building rapport with larger groups, particularly in getting to know individuals on a personal level. Cindy notes that engaging extroverted employees can be challenging, especially when cameras are not enabled during calls, as these team members often prefer face-to-face interactions.

Overall, the responses reveal several common themes: a preference for and comfort with electronic communication tools, the importance of structured preparation through meeting agendas, a comfort level towards written communication, and challenges in building personal connections and engaging certain personality types in a virtual environment. These insights provide a nuanced understanding of how introverted PMLs navigate communication in virtual work environments, leveraging their strengths while addressing potential areas of difficulty.

In response to RQ2, which sought to identify the most effective communication strategies for employee engagement under introverted virtual leaders, the findings highlighted the importance of personal connections, adaptability, and structured approaches. Introverted PMLs employed creative strategies to foster team cohesion, such as virtual team-building activities and casual check-ins. They also demonstrated remarkable flexibility in adjusting their communication styles to suit various virtual contexts and individual team member needs. The use of well-prepared meeting agendas and materials emerged as a key strategy for effective leadership in VWEs.

When reviewing what communication strategies support employee engagement most under introverted virtual leaders, Mike stated, “I try to engage with team members as much as I can. I want to try to get to know my team more on a personal level so that we can do things, explore areas that pique both of our interests and try to find common ground where we both like doing things. And then, as far as activities within work, we may play games or just have conversations.” This also aligns with Carol, who conveyed, “I think having that personal connection is important,” These statements coincide with the evidence by Susan Cain (2013) that suggests that introverted project management leaders have unique ways of engagement that offer insights into fostering robust virtual team dynamics, nurturing talent, and driving project success.

Each introverted project management leader provided responses related to the six general themes: strength & comfortability with electronic communication, the importance of personal connections, adapting to the environment, meeting agenda, preference for written communication, and surveys for feedback. As shown in Appendix P, these general themes found in the study's findings are connected with the literature review presented in Chapter Two.

Some participants identified the importance of fostering personal connections with their team members in the virtual work environment, consistently highlighting how introverted leaders strive to maintain and deepen relationships despite the physical distance, which is supported by Madlock (2008), who advised that personal connections in the workplace are crucial as they fulfill interpersonal needs and significantly impact employees' job satisfaction, organizational commitment, and burnout levels through both task-related and relational interactions with coworkers and supervisors.

Another key finding of the study is that participants consistently expressed a preference for and comfort with electronic forms of communication in the virtual work environment. This aligns with literature suggesting that introverts are quiet, do not engage in small talk, reflect longer when analyzing a problem before making decisions (Stephens-Craig et al., 2015), and prefer electronic communication to manage the pace and timing of their interactions (Cain, 2013). The study found that digital tools enhance the communication effectiveness of introverted leaders, which corresponds with the understanding that introverts tend to reflect longer when analyzing problems and making decisions.

The study also revealed that participants consistently identified the need to adapt their communication style to the virtual environment and specific contexts. This adaptability of introverted leaders ensures effective communication in various virtual settings. This finding

aligns with literature suggesting that leaders must manage, consider, and adapt to the characteristics of the context in which relationships are conducted in remote environments. To manage perceptions of leadership style in the remote environment [...], leaders must manage, consider, and adapt to the characteristics of the context in which the relationships are conducted (Avolio et al., 2014).

Participants in the study expressed the need for itemized lists and meeting agendas to stay organized in virtual meetings and maintain engagement during video calls. This finding is corroborated by literature emphasizing that team leaders must set and communicate clear agendas in advance to prevent meetings from getting off-track and optimize attention, creativity, focus, and enthusiasm in virtual meetings. Team leaders must set and communicate clear agendas in advance to prevent meetings from getting off-track and ensure that virtual meetings optimize attention and foster creativity, focus, and enthusiasm (Malhotra et al., 2007).

The study found that introverted leaders prefer written communication as it gives them time to reflect and articulate ideas thoroughly, leading to more thoughtful and effective interactions with virtual teams. This preference is supported by literature highlighting that introverts often prefer written communication over face-to-face interactions, allowing them to think deeply and express themselves more clearly. Cain (2013) emphasizes that introverts often prefer written communication over face-to-face interactions because it allows them to think deeply and express themselves more clearly. This preference for written communication can translate well to electronic communication, such as emails and messaging, where introverts can take their time to articulate their thoughts.

The study identifies various approaches used by participants to measure and understand employee engagement in virtual work environments, such as employee surveys, polls, and sprint

reviews. This finding aligns with literature emphasizing the importance of gathering employee feedback through surveys or other metrics of engagement. It's important to gather employee feedback through surveys or other metrics of engagement because leaders have the responsibility for being role models during tough times, integrating employee feedback into company culture, communicating clearly and consistently, and keeping motivation high with rewards and recognition (Chanana & Sangeeta, 2021). Such feedback integration is crucial for leaders to be effective role models, communicate clearly and consistently, and maintain high motivation through rewards and recognition.

### **Limitation of the Study**

While this study provides valuable insights into the communication strategies of introverted PMLs in VWEs, it is important to acknowledge its limitations. The small sample size of eight participants, though appropriate for an interpretative phenomenological analysis (IPA), may not fully represent the diverse experiences of all introverted PMLs in VWEs.

The IPA method was chosen because it allowed for a thorough investigation of the participants' fundamental experiences (Smith et al., 2022). Nevertheless, the use of self-reported data may introduce potential biases, as participants' perceptions of their own communication strategies may differ from their actual behaviors. The lack of observational data or input from team members limits the ability to triangulate findings and verify the effectiveness of reported strategies.

The design of the study only shows a picture of the participants' experiences. It doesn't show how their communication styles might change over time or in response to changes in virtual work conditions. Despite these limitations, the study gives us useful information about how quiet PMLs experience VWEs and is a catalyst for more research in this area.

### **Implications for Theory and Research**

The findings of this study offer several important implications for theory and research regarding introverted project management leadership in VWEs. These implications build upon and extend the theoretical foundations and existing literature discussed in Chapter Two.

This study contributes to the ongoing discourse on Introversion/Extraversion Theory in leadership contexts. As highlighted by Jung (1923) and later expanded by Cain (2013), introversion is characterized by an inward focus and a preference for low-stimulation environments. The findings suggest that VWEs may provide a uniquely suitable context for introverted leaders to leverage their natural strengths. The preference for written communication and thoughtful reflection, as demonstrated by the introverted PMLs in our study, aligns well with the asynchronous nature of many virtual interactions. This supports and extends Spataro's (2005) proposition that introverts' tendency for careful communication helps mediate the lack of nonverbal cues in computer-mediated environments.

Furthermore, our results provide nuanced insights into the application of Media Richness Theory (Daft & Lengel, 1986) in the context of introverted leadership. While this theory speculates that richer media are generally more effective for complex communication tasks, our findings suggest that introverted leaders may excel in using "leaner" media, such as written communication, to convey complex ideas and engage employees. This implies that the effectiveness of media richness may be moderated by leadership style and personality, a concept that warrants further investigation.

The study also contributes to the evolving understanding of Transformational Leadership Theory in virtual contexts. Bass and Riggio (2006) state that the four components of transformational leadership, idealized influence, inspirational motivation, intellectual

stimulation, and individualized consideration, manifest differently for introverted leaders in VWEs. Our findings suggest that introverted PMLs may excel particularly in intellectual stimulation and individualized consideration through their thoughtful, personalized communication approaches. However, they may need to develop adaptive strategies for idealized influence and inspirational motivation in virtual settings. This extends the work of Grant et al. (2011) on the strengths of introverted leaders and suggests new avenues for research on how transformational leadership can be effectively enacted by different personality types in virtual environments.

The study's findings also have implications for research on employee engagement in VWEs. Building on the work of Schaufeli et al. (2002) and Kahn (1990), our results suggest that engagement in virtual settings may be fostered through mechanisms different from those in traditional face-to-face environments. The emphasis on written communication, active listening, and creating psychological safety aligns with recent research on virtual team engagement (e.g., Ferri & Bradbury, 2021) but adds the dimension of introverted leadership as a potential facilitator of these processes.

Moreover, this study addresses the call for more research on moderators influencing introverted leadership effectiveness in virtual settings, as highlighted by Grant et al. (2011). Our findings provide a foundation for future studies to explore how factors such as team size, project complexity, and degree of virtuality may influence the effectiveness of introverted leadership communication strategies.

The study contributes to the broader discourse on diversity in leadership styles. By highlighting the unique strengths and adaptive strategies of introverted leaders in VWEs, this research challenges the traditional extrovert-centric view of leadership effectiveness. This aligns

with and extends Cain's (2013) work on the power of introverts in leadership roles and suggests a need for more inclusive models of leadership that recognize and value diverse personality types.

### **Implications for Practice**

The findings of this study offer several practical implications for executive leadership in VWEs, particularly for introverted PMLs. Organizations should recognize and leverage the strengths of introverted leaders in digital communication. The study reveals that introverted PMLs excel in written communication and thoughtful, prepared interactions, which are highly valuable in VWEs. Therefore, companies should provide tools and platforms that support asynchronous, written communication, allowing these leaders to maximize their effectiveness.

Leadership development programs should incorporate training on virtual team-building and personal connection strategies, as the study shows these are critical for maintaining team cohesion in remote settings. This could include workshops on creative virtual engagement activities and the effective use of digital tools for relationship-building.

Organizations should encourage and support the development of adaptive communication skills among their leaders. The study demonstrates that successful introverted PMLs adjust their communication style based on the context and audience, suggesting that flexibility is key in virtual leadership. Companies should implement structured approaches to measuring employee engagement in VWEs, as the study indicates a lack of consistent methods among leaders. This could involve developing standardized virtual engagement surveys or training leaders in data-driven engagement assessment techniques.

Generalizability allows the findings of this study to be applied across various disciplines. This enables researchers in fields such as leadership, higher education, and sociology to draw relevant conclusions and adapt the insights to their specific topics.

Organizations should create supportive environments that allow introverted leaders to leverage their natural strengths while also providing opportunities for them to stretch beyond their comfort zones when necessary. These practical implications are directly derived from the study's findings and offer actionable strategies for enhancing leadership effectiveness in increasingly prevalent virtual work contexts.

### **Recommendations for Further Research**

Future research should consider continuous studies to examine how introverted PMLs' communication strategies evolve over time in VWEs. This could provide insights into the adaptability and long-term effectiveness of these leaders in virtual settings.

Also, given the global nature of many virtual teams, future studies should explore how cultural differences influence the effectiveness of introverted leadership communication in VWEs. This could involve comparing introverted PMLs' strategies across different cultural contexts.

Future studies should investigate the impact of virtual leadership on the stress levels and well-being of introverted PMLs, considering the unique challenges they face in maintaining visibility and engagement in VWEs. In addition, exploring how the personality types of team members interact with introverted leadership styles in VWEs could provide insights into optimizing team composition and communication strategies.

While this study focused on communication strategies and employee engagement, future research should investigate the relationship between introverted PMLs' communication approaches and quantitative team performance metrics in VWEs. Several participants indicated that no quantitative metrics were used in surveys for feedback. Finding participants that do

utilize metrics that gauge employee engagement could provide valuable insights into the tangible impacts of these leadership styles.

In regards to a research method for this type of study, future studies could benefit from a mixed-methods approach, combining qualitative interviews with quantitative surveys of team members. This would provide a more comprehensive view of the effectiveness of introverted PMLs' communication strategies from both leader and employee perspectives.

These recommendations address both the strengths and limitations of the current study and aim to deepen our understanding of introverted leadership in increasingly prevalent virtual and hybrid work environments. By pursuing these research directions, we can continue to refine our theoretical frameworks and practical approaches to effective leadership in the digital age.

### **Conclusions**

The key takeaway from this research is that introverted Project Management Leaders (PMLs) can effectively leverage their natural strengths in virtual work environments (VWEs) through thoughtful, structured, and adaptive communication strategies. This study reveals that introverted leaders excel in written communication, personal connections, and structured interactions, which are particularly valuable in virtual settings.

This research has shed light on the unique ways introverted PMLs navigate the challenges of virtual leadership. It demonstrates that these leaders can thrive in VWEs by capitalizing on their preferences for electronic communication, their ability to foster deep personal connections despite physical distance, and their flexibility in adapting their communication style to various virtual contexts. The study also highlights the importance of structured approaches, such as well-prepared meeting agendas and thoughtful written communications, which align well with introverted leaders' tendencies.

Furthermore, this research challenges the traditional notion that extroverted traits are necessary for effective leadership, especially in virtual environments. It reveals that introverted leaders bring valuable skills to virtual team management, including the ability to create meaningful connections through digital mediums and to provide clear, well-considered communication.

The findings of this study have significant implications for leadership development, team management in virtual settings, and organizational strategies for leveraging diverse leadership styles. They suggest that organizations should recognize and nurture the strengths of introverted leaders, particularly as remote and hybrid work models become increasingly prevalent.

This research journey has taught me the value of embracing diverse leadership styles and the importance of creating inclusive work environments that allow all personality types to thrive. I've gained a new appreciation for the unique strengths that introverted leaders bring to the table, particularly in virtual settings where thoughtful, written communication is often paramount.

The process of conducting in-depth interviews and analyzing the rich data provided by participants has honed my skills as a qualitative researcher. It has taught me the importance of active listening, the value of seeking diverse perspectives, and the need for rigorous, systematic analysis to uncover meaningful insights.

This research has reinforced the understanding and leveraging of individual differences in leadership. It has inspired me to advocate for more inclusive leadership models that recognize and value the contributions of both introverted and extroverted leaders, particularly as we navigate the evolving landscape of virtual work.

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## APPENDIX A: MYERS-BRIGGS PERSONALITY TEST

NOTE: Licensing restrictions prevent the instrument from appearing in this manuscript.

The instrument is readily available for purchase at:

<https://www.mbtionline.com/en-US/Products/For-you>.

The instrument is © 2024 by Peter B. Myers and Katharine D. Myers.

## APPENDIX B: INFORMED CONSENT

### Informed Consent

You are invited to participate in a research study conducted by Ronnie Milam, from the University of Charleston Doctorate of Executive Leadership. I hope to learn how introverted project management leaders communicate and engage with employees who work virtually. You were selected as a possible participant in this study because you met the criteria of being a project management leader with at least 5 years experience, are an introvert, and work in a virtual environment.

If you decide to participate, I will conduct a 45- 60-minute interview via Zoom to collect data regarding your leadership experience as an introverted project management leader in a virtual work environment. The interview will be recorded with your permission and professionally transcribed.

There is no cost for you to participate in this research. The benefit of participating in this research is providing me with valuable information that will help enhance my understanding of communication introverted project management leaders use to engage their employees in virtual work environments. However, I cannot guarantee that you personally will receive any benefits from this research. There will be no compensation provided for participating in this research.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Subject identities will be kept confidential by treating all data with the utmost confidentiality. Your identity will remain anonymous throughout the research process and in any subsequent dissemination of findings. To ensure confidentiality, several measures will be implemented. First, any potential identifiers, such as your name, organizational affiliations, or specific project details, will be redacted or coded to protect your identity. Pseudonyms or unique identifiers will be assigned to you, and a separate key linking these identifiers to your actual identity will be stored securely and accessed only by the primary researcher. Furthermore, all physical and electronic data, including transcripts, notes, and audio/video recordings, will be stored electronically under a passcode and accessible only to the research team through secure passwords. Any hard copies of data will be kept in a locked cabinet within a secure location. While direct quotations from you may be used to illustrate findings, care will be taken to ensure that these quotes do not inadvertently reveal identifiable information. All data will be stored in encrypted files on a password-protected computer. Only the primary researcher will have access to this data. Plans for data dissemination will exclude any personally identifiable information. All data will be destroyed five years post-study completion through secure digital deletion methods.

Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with your agency. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions, please feel free to contact Ronnie Milam by phone: 910-465-6347 or email: [RonnieMilam@UCWV.edu](mailto:RonnieMilam@UCWV.edu). You may also contact my advisor, Dr. Kristen Dugan, by email: [KristenDugan@UCWV.edu](mailto:KristenDugan@UCWV.edu), office phone 828-302-2791; or mail University of Charleston, School of Leadership, 2300 MacCorkle Ave., SE, Charleston, WV 25304. . If you have questions regarding your rights as a research subject, contact Dr. Calvin Lathan, Chair University of Charleston, Institutional Review Board [phone: 904-910-9440, email: [calvinlathan@ucwv.edu](mailto:calvinlathan@ucwv.edu)]. You will be given a copy of this form to keep.

Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you will receive a copy of this form, and that you are not waiving any legal claims.

**Participant's Name:** \_\_\_\_\_

**Participant's Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Researcher's Name:** \_\_\_\_\_

**Researcher's Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## APPENDIX C: PARTICIPATION

### **Subject: Volunteers Needed for Dissertation Study on Introvert Project Management**

#### **Communication**

Are you an introvert who has led or is currently leading a virtual/remote project team? If so, I need your help with my doctoral dissertation research!

My study aims to explore and understand the communication methods, strategies, and techniques that introverted project management leaders use to effectively engage their virtual employees. As someone with first-hand experience in this area, your perspectives and insights would be invaluable.

#### **What's Involved?**

I am seeking volunteers to participate in a 45-to-60-minute virtual interview via Zoom or Microsoft Teams. During the interview, I will ask you about your experiences as an introvert leading virtual teams, the communication approaches you've used, the challenges you've faced, and successful methods for engaging remote employees.

Your identity and all information will be kept completely confidential. Interviews will be recorded and transcribed, but only for analysis purposes.

#### **Who Should Apply?**

You should consider volunteering if you meet the following criteria:

- Self-identify as an introvert (a personality test will be provided to test your introversion personality level if selected).
- Have been or currently are a project manager leading virtual/remote teams.
- Have at least 5 years of experience in this type of role.
- Are willing to share your experiences and perspectives openly.

If you are interested in participating or have any other questions, please email me at [RonnieMilam@UCWV.edu]. Please include a brief introduction about yourself and your experience leading virtual teams.

Thank you in advance for your consideration. Your participation will provide meaningful insights that will help improve our understanding of effective virtual leadership for introverts.

## APPENDIX D: INTERVIEW QUESTIONS

1. Please describe what you use to communicate with your teams as a project manager in a virtual environment.
2. How do you think being introverted influences your communication when managing virtual teams?
3. What strategies do you use to engage your team members in a virtual setting?
4. How do you modify your communication approach when dealing with varying degrees of virtuality in the workplace?
5. How do you prepare for communication or engagement activities in a virtual environment?
6. In what ways do you think your introverted nature impacts your approach to virtual communication?
7. Please provide an instance where you had to adapt your communication strategy to better engage with your team in a more virtual or less virtual setting.
8. What challenges have you faced in engaging employees virtually due to your introverted communication?
9. Are there any metrics or feedback methods you use to gauge employee engagement?

## APPENDIX E: MIKE – INDIVIDUAL THEMES

### Appendix E

#### Mike - Individual Themes

Participant	Theme	Responses
	Strength & Comfortability with electronic communication	I think it causes me to communicate more into what I'm comfortable with because it's virtual. There's a lot less face-to-face, because we've got some video calls where some require the camera to be enabled to provide a face to face environment. For the most part, you're still kind of alone most of the time you're by yourself. So I tend to use electronic messaging because I'm more comfortable with it.
	Personal connections	I try to engage with team members as much as I can. I want to try to get to know my team more on a personal level so that we can do things, explore areas that pique both of our interests and try to find common ground where we both like doing things. And then, as far as activities within work, we may play games or just have conversations.
Mike	Encourage camera use on calls	I think the only thing that I made differently is requiring the camera to be on or off. I'm much more conscious about facial expressions when the camera's on, and which all those things are natural in a, in a face-to-face conversation with somebody where you're actually, you know, in person, but it's a little different virtually.
	Check technology set-ups	I prepare my materials ahead of time and make sure my technology is set up and working correctly so that everything's seamless. With it being virtual, it just makes everything more relaxed.
	Positively influenced / less anxiety	I think it's better. I don't have the same anxieties that I might in a face to face setting or in a big group. I have to be conscious about my introvert nature, because if I'm in a meeting with a lot of people, I tend to get quiet, and it's real easy to disappear.
	Surveys for Feedback	I use the poll survey named Gallup. Those are sent out to get feedback at every level of the business. Metrics and surveys are a good thing.

## APPENDIX F: CAROL – INDIVIDUAL THEMES

### Appendix F

#### Carol - Individual Themes

Participant	Theme	Responses
Carol	Strength & Comfortability with electronic communication	I'm just the type that prefers to send a quick email or a Slack instead of a phone chat. Sometimes the phone call makes more sense, though, and you know down the hook on a call if that need to, but if it can be done within a Slack or a quick email, I'm probably more inclined to do that instead.
	Personal connections	Think having that personal connection is important, so trying to keep some of the conversations light and, and airy.
	Adapt to environment	Being in a virtual environment, I am mindful of having people on the phone trying to talk on a call with other people who are virtual too. I try to allow some banter on the call if attendees want to chat or go straight to business if the mood of the call is more of getting down to business.
	Meeting agenda	I am the ringleader of coming up with engagement activities. I would put together an agenda and add a time for activities for my team meetings.
	Positively influenced / prefer written communication	I tend to go more with written communication as opposed to verbal communication, and I'm real bad to try to figure things out myself before reaching out to someone and fear that I might be bugging them yeah ok that's probably the most impactful things that that you know, hold me back or whatever.
	Numerically monitor communication interactions	There were no metrics per se. I would vigilantly monitor the Slack channels, not just for the sake of it, but because I genuinely cared about everyone's engagement. If I noticed someone being quiet one day, I would give them a day or two, and then I would reach out with a quick side chat, showing them that their well-being was a priority for me.

## APPENDIX G: GREG – INDIVIDUAL THEMES

Appendix G  
Greg - Individual Themes

Participant	Theme	Responses
Greg	Empathic	I think the best thing it helped me with is spotting other introverts and not trying to get them to do things that they might not be comfortable with.
	Personal connections	I try to get to know them on a personal level to get some of that awkwardness out of the way and learn that one person's sense of humor is not the same as the other.
	Adapt to environment	I adjust my way of dealing with that person. So, if I have a more outgoing person that I need to communicate with, I try to be a little bit more outgoing myself and a little bit more bubbly and energetic. I try to tailor it to the person I'm interacting with virtually.
	Notes for talk-track	I don't prepare too much. I just make sure I have everything I need for whatever meeting or project it is, and then the little notepad so I can jot down things that I like key points that I have to hit.
	Positively influenced / prefer written communication	I think it impacts mine in a positive way because I have always been more comfortable behind the computer screen and talking through email or instant messaging.
	Lack of metric tools	Not really. I've never been a fan of Metrics and haven't looked for ways to measure employee engagement.

## APPENDIX H: MARCIA – INDIVIDUAL THEMES

### Appendix H

#### Marica - Individual Themes

Participant	Themes	Responses
Marcia	Increase cameras for eye contact	It makes it harder for me to communicate virtually because, as an introvert and a strong type D personality, I tend to want to get things done. I have to focus on the person to make sure that I'm giving them the attention that they need because they tend to need more than my personality gives. I think it's different with the camera on versus the camera off. I think when cameras are on, I'm more obviously aware of what people can see what I'm doing or if I'm doing.
	Interactive participation	I think that one of the things that I like to do when I do a big group team meeting, is I like it to be interactive.
	Individual acknowledgement	I make a conscious effort to see and acknowledge everyone as they join a call, which can be more challenging than in face-to-face settings.
	Notes for talk-track	I like to be prepared for anything that I'm doing. So, I do research on the topic I do. I make sure I have notes handy in front of me.
	Negative influence / self doubt when communicating	I think my being an introvert definitely shows when I'm on a call with people that I don't feel comfortable. I think it's more like people I feel like I don't know personally; inside, I don't feel like I fit in with them.
	Numerically monitor communication interactions	I track engagement by monitoring attendee numbers and drop-off rates. This helps us gauge if the meeting is too long or if we're losing people at certain points. I also use video analytics to measure engagement.

## APPENDIX I: PETER – INDIVIDUAL THEMES

### Appendix I

#### Peter - Individual Themes

Participant	Themes	Responses
Peter	Strength & Comfortability with electronic communication	As someone who infinitely prefers virtual communication, I find that the digital realm allows for a more comfortable and effective interaction. The ability to communicate through text and email aligns perfectly with my natural inclination to process thoughts internally before sharing them. This preference for written communication over speaking in person offers several advantages in a virtual team setting.
	Interactive participation	Engaging team members in a virtual setting requires a thoughtful and structured approach to ensure everyone stays connected, motivated, and aligned with the team's goals. One key strategy I use is organizing weekly team meetings. These meetings serve as a cornerstone for our virtual collaboration, providing a regular touchpoint to discuss all active projects in detail. During these weekly sessions, we ensure that each team member can present their progress on ongoing projects.
	Screen share	Screen sharing is particularly useful for visual and training purposes. When introducing new tools, explaining complex processes, or reviewing project progress, being able to show my screen in real time helps in making the information clear and accessible.
	Meeting agenda	I rely on is creating detailed meeting agendas. Before any scheduled meeting, I outline the main topics we need to cover, set clear objectives, and allocate time for each discussion point. Living by my calendar is another crucial aspect of my preparation.
	Positively influenced /easier to multi-task	For me, it's much easier to cope in a virtual environment than in a traditional office setting. The idea of being in a big office surrounded by people can be overwhelming and distracting. I find that written communication gives me the time to reflect and articulate my ideas thoroughly. It also helps me to multi-task better during busy times.
	Surveys for Feedback	One of the primary tools I use is team surveys. I also strongly emphasize frequent one-on-one check-ins.

## APPENDIX J: JAN – INDIVIDUAL THEMES

### Appendix J

#### Jan - Individual Themes

<b>Participant</b>	<b>Themes</b>	<b>Responses</b>
Jan	Strength & Comfortability with electronic communication	I feel like I tend to use slack to message or smart sheet comments more than zoom.
	Personal connections	I feel like the group slack is a great way to message everyone at the same time. Plus I can @here the channel for announcements. I'll often say add an emoji for a personal connection to this if you read it to ensure the message was recieved and remain fun.
	Screen share	I have weekly internal project calls and 2-3 external project calls a week. I share my screen and camera while on zoom to help with non-verbal communication.
	Check technology set-ups	I will ensure my smart sheet dashboard is in order. I'll ensure I'm prepared for the agenda. If I'm doing a demo, I'll make sure I have a prepared examples and I thoroughly tested ahead of time.
	Positively influenced / time to prepare	I feel like I prepare more than some peers with my meetings. I would like to spend less time speaking and more accurately convey my message so there isn't miscommunication and I don't have to speak more than needed.
	Sprint reviews	I do a sprint review at the end of each sprint to get feedback. We also have the weekly calls where we can gain feedback.

## APPENDIX K: BOBBY – INDIVIDUAL THEMES

### Appendix K

#### Bobby - Individual Themes

Participant	Themes	Responses
Bobby	Strength & Comfortability with electronic communication	I am introverted, especially my personality type, but I also like to be inclusive. So, encouraging the full participation, thoughts, and ideas from everybody are always promoted. I don't want to be the one that's dictating everything that needs to be done. I want there to be dialogue, negotiation, and come to a consensus where we can collectively agree on a path forward.
	Interactive participation	The objective or strategy would be to ensure collaboration, ensure that the team is communicating with one another, and be in a virtual type of environment, eliminating any sense of silos.
	Adapt to environment	It's really just a matter of adjusting your approach based on the audience and, you know, that isn't it, is it a conversation with folks and individuals that you're going to be on camera with and that you have an established relationship with where you can be casual or not.
	Meeting agenda	I typically have an agenda with maybe one or two action items that need or agenda items that need to be discussed. One to three agenda items, then there's a list that's put together.
	Negative influence / lose meaning in communicating	So, in the virtual environment, it's a little bit different because you don't have the personal interaction, you don't have the one-on-one personal interaction. So, moving into the kind of Slack huddles, those tactical conversations In Slack are still not as meaningful and as impactful as when you're in a small group.
Lack of metric tools/ monitor action items completed	I can't say that there aren't necessarily any metrics. I think in terms of engagement, it's really a matter of who's providing insight, who's getting things done, who's taken action items and accountability of any action items that are assigned, and things are getting done there. So, it's very subjective and a trust filled environment. It's kind of where things are expected, and it's very loosely managed.	

## APPENDIX L: CINDY – INDIVIDUAL THEMES

### Appendix L

#### Cindy - Individual Themes

Participant	Themes	Responses
Cindy	Strength & Comfortability with electronic communication	I find it easier to communicate with my team virtually, because it's easier for me to send messages and emails to team members when I need answers.
	Random name selection on calls	Going down a list of names on the call or on an agenda is sometimes unavoidable, but I like to not keep a standard order of team member names so that everyone needs to remain engaged and have their attention be devoted to the call.
	Adapt to environment	I find myself modifying my communication approach differently, depending on the type of scenario involved and the audience on the call.
	Meeting agenda	I always draft an agenda to send out an hour before the call starts.
	Positively influenced / prefer written communication	I am more comfortable in sending messages or emails. I'd rather send an electric communication versus picking up the phone to call someone.
	Surveys to Feedback	I don't really have any metrics I use in measuring employee engagement. At the end of each project, I send an email to all the stakeholders to ask for feedback regarding the project to help manage the next project created.

## APPENDIX M: PARTICIPANT'S GENERAL THEMES

### Appendix M

#### Participant's General Themes

Participants	Theme #1	Theme #2	Theme #3	Theme #4	Theme #5	Theme #6
Mike	Strength & Comfortability with Electronic Communication	Personal Connections	Encourage camera use on calls	Check technology set-ups	Positively influenced / less anxiety	Surveys for Feedback
Carol	Strength & Comfortability with Electronic Communication	Personal Connections	Adapt to Environment	Meeting Agenda / initiate games	Positively influenced / Prefer Written Communication	Lack of metric tools/ Numerically monitor communication interactions
Greg	Empathic	Personal Connections	Adapt to Environment	Notes for talk-track	Positively influenced / Prefer Written Communication	Lack of metric tools/ Numerically monitor communication interactions
Marcia	Increase cameras for eye contact	Interactive participation	Individual acknowledgement	Notes for talk-track	Negative influence / self doubt when communicating	Lack of metric tools/ Numerically monitor communication interactions
Peter	Strength & Comfortability with Electronic Communication	Interactive participation	Screen share	Meeting Agenda	Positively influenced /easier to multi-task	Surveys for Feedback
Jan	Strength & Comfortability with Electronic Communication	Personal Connections	Screen share	Check technology set-ups	Positively influenced / time to prepare	Sprint reviews
Bobby	Strength & Comfortability with Electronic Communication	Interactive participation	Adapt to Environment	Meeting Agenda	Negative influence / lose meaning in communicating	Lack of metric tools/ monitor action items completed
Cindy	Strength & Comfortability with Electronic Communication	Random name selection on calls	Adapt to Environment	Meeting Agenda	Positively influenced / Prefer Written Communication	Surveys for Feedback
<b>General Themes</b>	<b>Strength &amp; Comfortability with Electronic Communication</b>	<b>Personal Connections</b>	<b>Adapt to Environment</b>	<b>Meeting Agenda</b>	<b>Prefer Written Communication</b>	<b>Surveys for Feedback</b>

## APPENDIX N: CONNECTIONS WITH RQ1, INTERVIEW QUESTIONS, DATA, & THEMES

### Appendix N

#### Connections with Research Question 1, Interview Questions, Data, & Themes

Research Question	Interview Question	Responses	Themes
	Please describe what you use to communicate with your teams as a project manager in a virtual environment.	<b>Greg:</b> I mainly use Slack. Slack is quick and easy. I send the message and I get a response. it takes out having to include greetings and closures you need to apply in an email or phone call. <b>Bobby:</b> In a virtual environment, I think, setting up quick one-on-one meetings, you know, leveraging a lot of the tools that, that we have, especially Webex and so these virtual kinds of, quick impromptu meetings, nothing really scheduled or formal, and then instant messenger is, you know, all day long kind of thing. There are very few emails that I'm sending at this point.	Google Teams, email, text, phone/video calls
	How do you think being introverted influences your communication when managing virtual teams?	<b>Mike:</b> I think it causes me to communicate more into what I'm comfortable with because it's virtual. For the most part, you're still kind of alone most of the time you're by yourself. <b>Carol:</b> I'm just the type that prefers to send a quick email or a Slack instead of a phone chat. Sometimes the phone call makes more sense, though, and you know down the hook on a call if that need to, but if it can be done within a Slack or a quick email, I'm probably more inclined to do that instead. <b>Cindy:</b> I find it easier to communicate with my team virtually, because it's easier for me to send messages and emails to team members when I need answers. I also like to document my interactions and responses, so sending an email or instant message allows me to accomplish this.	Strength & Comfortability with electronic communication
What communication do introverted PMLs use to engage employees in a VWE?	How do you prepare for communication or engagement activities in a virtual environment?	<b>Peter:</b> One key tool I rely on is creating detailed meeting agendas. Before any scheduled meeting, I outline the main topics we need to cover, set clear objectives, and allocate time for each discussion point. This helps me stay focused and ensures that everyone knows what to expect and can come prepared to contribute effectively. <b>Bobby:</b> I typically have an agenda with maybe one or two action items that need or agenda items that need to be discussed. <b>Cindy:</b> I always draft an agenda to send out an hour before the call starts.	Meeting Agenda
	In what ways do you think your introverted nature impacts your approach to virtual communication?	<b>Carol:</b> I tend to go more with written communication as opposed to verbal communication, and I'm real bad to try to figure things out myself before reaching out to someone and fear that I might be bugging them yeah ok that's probably the most impactful things that hold me back. <b>Greg:</b> I think it impacts mine in a positive way because I have always been more comfortable behind the computer screen and talking through email or instant messaging. <b>Peter:</b> To engage my employees, I primarily use written forms of communication like emails, instant messaging, and project management tools. These platforms allow me to convey my thoughts clearly and concisely, ensuring my messages are well-organized and easily accessible.	Prefer written communication
	What challenges have you faced in engaging employees virtually due to your introverted communication?	<b>Bobby:</b> I think my main challenge has been building rapport with the large group, as this is with the analyst handling operations and frontline. I never got an opportunity to really build rapport and have a conversation with them and get to know who they were as individuals. <b>Cindy:</b> I found the most challenging thing is engaging employees that are extroverts rather than introverts. They have a more difficult time staying engaged with team members on a call if their camera is not enabled.	Decreased Rapport and Engagement

## APPENDIX O: CONNECTIONS WITH RQ2, INTERVIEW QUESTIONS, DATA, & THEMES

### Appendix O

#### Connections with Research Question 2, Interview Questions, Data, & Themes

Research Question	Interview Question	Responses	Themes
	What strategies do you use to engage your team members in a virtual setting?	<p><b>Mike:</b> I try to engage with team members as much as I can. I want to try to get to know my team more on a personal level so that we can do things, explore areas that pique both of our interests and try to find common ground where we both like doing things. And then, as far as activities within work, we may play games or just have conversations. <b>Carol:</b> Think having that personal connection is important, so trying to keep some of the conversations light and, and airy. <b>Greg:</b> My best strategy is to try to make everybody a friend. I try to get to know them on a personal level to get some of that awkwardness out of the way and learn that one person's sense of humor is not the same as the other. <b>Marica:</b> I think that one of the things that I like to do when I do a big group team meeting, is I like it to be interactive. I'll say, hey, raise your hand; I want to hear from you, and I want your feedback. I think the more that they get to participate, I think the easier it is for them.</p>	Importance of personal connections
	How do you modify your communication approach when dealing with varying degrees of virtuality in the workplace?	<p><b>Greg:</b> I adjust my way of dealing with that person. So, if I have a more outgoing person that I need to communicate with, I try to be a little bit more outgoing myself and a little bit more bubbly and energetic. I try to tailor it to the person I'm interacting with virtually. <b>Bobby:</b> I think most recently we've, we've modified quite a bit, and I say most recently because, now a lot of folks are back in the office and you have, you know, people dressing the part, very formal conversations, when, when they're in the office, whereas before when everybody was home, it was, it was a very casual conversation. <b>Cindy:</b> I find myself modifying my communication approach differently, depending on the type of scenario involved and the audience on the call.</p>	Adapt to Environment
What communication strategies support employee engagement most under introverted virtual leaders?	Please provide an instance where you had to adapt your communication strategy to better engage with your team in a more virtual or less virtual setting.	<p><b>Carol:</b> I increased the meetings, and those were for 1 hour instead of 30 minutes. <b>Peter:</b> I like to increase the amount of meetings. I find if I spend more time with my team, I can help resolve issues that happen with projects before it affects the scope and timeline committed to the stakeholders. <b>Mike:</b> I'm not a fan of being the center of attention in a larger group. If we're in the center or something like that, I don't I don't like having all eyes on me. When I was in a less virtual environment, like a call center, I would try to make big groups and small groups and break them down into smaller chunks. In this way, I've got more personalized conversations. I don't have the anxieties that I would normally have because I'm introverted when it's a smaller group like that. That's what helped me deal with my introvertedness by just breaking large groups into smaller groups.</p>	Increase meeting invites
	Are there any metrics or feedback methods you use to gauge employee engagement?	<p><b>Marcia:</b> For our sessions, we track engagement by monitoring attendee numbers and drop-off rates. This helps us gauge if the meeting is too long or if we're losing people at certain points. I also use video analytics to measure engagement. Our video platform, Bom-Bom, tracks how many people watch my videos and for how long. I can see the percentage of viewers who watched the entire video, which helps me judge the content's effectiveness. <b>Jan:</b> I do a sprint review at the end of each sprint to get feedback. Also, in general if the project is on schedule with minimal risk I feel like we are doing well with engagement. We also have the weekly calls where we can gain feedback. <b>Mike:</b> We use the poll survey by Gallup. Those are sent out across the company to get feedback at every level of the business. They're anonymous, because it gives everybody the freedom to express their thoughts, and then we get those reports back. Metrics and surveys are a good thing.</p>	Surveys for Feedback

## APPENDIX P: CONNECTIONS WITH STUDY FINDINGS, THEMES, & LITERATURE REVIEW

### Appendix P

#### Connections with Study Findings, Themes, and Literature Review

Study Findings	General Themes	Literature Review
Each participant identified a preference for or comfort with electronic forms of communication in the virtual work environment because digital tools enhance their communication effectiveness.	Strength & Comfortability with electronic communication	Introverts are quiet, do not engage in small talk, reflect longer when analyzing a problem before making decisions (Stephens-Craig, et al., 2015), and prefer electronic communication to manage the pace and timing of their interactions (Cain, 2013).
Each participant identified the importance of fostering personal connections with their team members in the virtual work environment, consistently highlighting how introverted leaders strive to maintain and deepen relationships despite the physical distance.	Importance of personal connections	Personal connections in the workplace are crucial as they fulfill interpersonal needs and significantly impact employees' job satisfaction, organizational commitment, and burnout levels through both task-related and relational interactions with coworkers and supervisors (Madlock, 2008).
Each participant identified the need to adapt their communication style to the virtual environment and specific context, consistently highlighting how introverted leaders adjust their approaches to ensure effective communication in various virtual settings.	Adapt to environment	To manage perceptions of leadership style in the remote environment [...], leaders must manage, consider, and adapt to the characteristics of the context in which the relationships are conducted (Avolio, et al., 2014).
Participants expressed preparations for communication requires the need for itemized lists and meeting agendas to stay organized in virtual meetings and keep engagement present during video calls.	Meeting agenda	Team leaders must set and communicate clear agendas in advance to prevent meetings from getting off-track and ensure that virtual meetings optimize attention, foster creativity, focus, and enthusiasm (Malhotra, et al., 2007).
Preferring written communication gives time to reflect and articulate ideas thoroughly, which can lead to more thoughtful and effective interactions with a virtual team.	Prefer written communication	Cain (2013) emphasizes that introverts often prefer written communication over face-to-face interactions because it allows them to think deeply and express themselves more clearly. This preference for written communication can translate well to electronic communication, such as emails and messaging, where introverts can take their time to articulate their thoughts.
Each participant identified different approaches to measuring and understanding employee engagement in their virtual work environments; such as employee surveys, polls and sprint reviews.	Surveys for Feedback	It's important to gather employee feedback through surveys or other metrics of engagement because leaders have the responsibility for being role models during tough times, integrate employee feedback into company culture, communicate clearly and consistently, and keep motivation high with rewards and recognition (Chanana & Sangeeta, 2021).