Distributed Team E-leadership: A Phenomenological Inquiry into Subordinate Perceptions of Career Development

by

Coby Andrew True

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We the undersigned committee hereby recommend that the attached document be accepted as fulfilling in part of the requirements for the degree of Doctor of Business Administration

Distributed Team E-leadership: A Phenomenological Inquiry into Subordinate Perceptions of Career Development, a dissertation by Coby Andrew True

Darrel L. Sandall, Ph.D.
Associate Professor, Management
Nathan M. Bisk College of Business
Dissertation Advisor

B. Andrew Cudmore, Ph.D.
Professor, Management
Nathan M. Bisk College of Business

Troy Glassman, Ph.D.
Assistant Professor, Management
Nathan M. Bisk College of Business

Robert Schaller, Ph.D.
Associate Professor, Business
Nathan M. Bisk College of Business

Theodore Richardson, Ed.D.
Dean and Professor
Nathan M. Bisk College of Business
Abstract

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Dissertation Advisor: Darrel L. Sandall, Ph.D.

As changes in the global economy coupled with fast-paced advancements in technology continue to evolve and merge, the need to deploy a distributed workforce becomes increasingly important to remain competitive. Just as managers adapt traditional leadership styles to meet the needs of the distributed environment, individual team members must also overcome the challenges of increased geographic proximity, or physical distance between team members and team leader. As distributed teams continue to become more prevalent in the work environment, adaptations of traditional leadership styles must evolve to account for the unique conditions. The increasing use of Advanced Information Technology (AIT) has become an intermediary between leaders and followers. E-leadership has emerged within recent literature to bridge this gap by taking existing leadership styles and combining advanced information technology to form a holistic approach to meet the leadership needs of the distributed workforce. However, current literature has yet to adequately address the effects on career development on distributed teams.
Through this qualitative phenomenological study, the lived experience of the subordinate on a distributed team and what impact e-leadership has on the subordinate’s perception of career development was explored.

**Keywords:** e-leadership, transformational leadership, shared leadership, emergent leadership, distributed teams, virtual teams, colocated teams, career development
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Dedication

I dedicate this dissertation to my family. You allowed me to chase my goals and put your own on hold. I cannot thank you enough for that sacrifice. Your support is a testament to what can be achieved when others believe in you. I’ve grown so much through this journey, and could not have achieved a fraction of this without your love and support. My hope is that I can now make the same sacrifices and help you achieve your goals and dreams as well.
Chapter 1. Introduction

Overview

The fast-paced advancement and acceptance of technology has set aside geographic boundaries that at one time limited the effectiveness of the global economy. Organizations have undergone remarkable transformations in structure as they extend further away from home markets (Kozlowski & Bell, 2013). In order to remain competitive in the new era of globalization, some organizations are finding it necessary to alter past business models and leadership strategies to accommodate a global workforce of dispersed teams and virtual leaders (Kanter, 2013). The growth of the global workforce and the use of virtual workers has exploded, increasing by 115 percent during 2006-2015, a rate that is nearly ten times faster than the traditional workforce (Global Workplace Analytics [GWA], 2018). Figure 1 represents the growth in telecommuting compared to the traditional workforce since 2005. It is not unusual for the majority of workers to experience a form of virtual work at some point in their career. A study by the Gartner Group (Kanawattanachai & Yoo, 2002) found 60 percent of professional employees work in teams characterized by virtuality. A recent study by CultureWizard (2016) found in 1372 businesses across 80 countries, 85 percent work on virtual teams, with 41 percent having never met face-to-face. Dulebohn and Hoch (2017) attribute the growth of virtual teams to the rapid rise in globalization and advancements of
collaboration technologies. Technology advances have been a catalyst for the rapid increase in virtual teams, a trend that continues to increase based on recent studies.

![Figure 1](image_url)


Recent shifts in how organizations maintain a global presence have seen a growing reliance on virtual teams as permanent fixtures (Avolio, Sosik, Kahai, & Baker, 2014). Teams that reside in the virtual landscape have traditionally been used to complete short-term projects (Gibson & Cohen, 2003). This enabled the organization to match talent and transfer resources when needed. Organizations with virtual teams are not limited by geographic boundaries to build teams with unique skillsets and experience (Schaubroeck & Yu, 2017). Not unlike traditional
teams, virtual teams are typically structured with an established hierarchy, with the contribution of each team member varying by individual experiences and expertise (Driskell, Goodwin, Salas & O’Shea, 2006). Members of a team can be independent because of the specific tasks they perform, but at the same time, these tasks can affect the other team members (Guzzo & Dickson, 1996). Team outcomes, therefore, are a product of the interaction of team members, not simply the aggregated outputs of individuals who perform tasks independently (LePine, 2003, p. 30). Team performance is thereby partially attributed to technical expertise, but also to how the teams adapt to new technologies as well as the strength of interpersonal trust (Jarvenpaa, Knoll & Leidner, 1998; Kayworth & Leidner, 2000; Rutkowski, Saunders, Vogel & van Genuchten, 2007; Walther & Bunz, 2005). For a successful deployment and continued operation of the virtual workforce, organizations must effectively balance the social cost of the technology investment with the realized benefit, or risk negatively impacting both the employee and organization (Bannister & Remenyi, 2009).

Research on telecommuting, remote teams, and virtual teams has until recently dominated the literature about teams that communicate via technology (Hinds & Bailey, 2003). It was assumed that team members would at some point meet and collaborate face-to-face and that virtual teams were only temporary. The global economy now dictates that some organizations need to maintain a global presence, with technology advancements being a key resource for distributed teams.
Virtual teams and distributed teams use much of the same technology to communicate; however, with virtual teams, not all team members are dispersed from other team members (Kirkman & Mathieu, 2005). Distributed teams are structured much like any traditional team or virtual team; however, distributed teams are permanently geographically dispersed, and thus the team members do not work directly with each other or the team leader (O’Leary & Mortensen, 2010). The arrangement of team members being geographically dispersed can present significant challenges for the team to coordinate projects and for the leader to manage team goals and individual development (Fiol & O’Connor, 2005). The degree of complexity substantially increases when relationships must be formed and maintained without periodic reinforcement from face-to-face interaction (Inkpen, Mandryk, Dimicco, & Scott, 2004).

Organizations that implement distributed teams must stay knowledgeable and keep current with the most effective way to use technology. Technology is critical for the distributed team for collaboration and used to create a nexus enabling the sharing of information and to provide support. Lu, Watson-Manheim, Chudoba, and Wynn (2006) studied 1200 global employees of Intel to determine how technology was implemented by the organization. The authors discovered that using technology creates challenges for team communication and the more complex the technology implementation is, the greater the challenges become for teams to
communicate, coordinate, build trust, and meet deadlines. The resulting effects could manifest as delayed project completions, strained relationships, and even team members leaving the organization (Pinjani & Palvia, 2013). The challenge for organizations that adopt new technologies is how to economically implement technology and create social value to increase team productivity to maintain corporate competitiveness (Crossman & Kelley, 2004). Organizations that add social value and positively impact team collaboration with technology report a higher level of user confidence in the systems being used (Igbaria & Tan, 1997). The global dispersion of team members connected through technology fundamentally alters interpersonal relationships and could negatively impact each individual on the team (Baba, Gluesing, Ratner, & Wagner, 2004).

The reality is that globalization and the increasing presence of distributed teams has transformed the work paradigm and this shift has placed emphasis on how leaders and followers can build successful relationships (Germain & McGuire, 2014). As organizations invest more in distributed teams, leadership effectiveness has not kept pace to overcome the challenges of building relationships that the virtual environment creates (Strobl & Kohler, 2013). Members of distributed teams miss out on formal and informal opportunities for socialization and communication (Masuda, Holtschlag & Nicklin, 2017). Without spontaneous face-to-face interaction, the leader misses the subtle visual cues that would normally be recognized (Burke, Stagl, Salas, Pierce, & Kendall, 2006). Face-to-face interactions
facilitate nonverbal cues such as body, face, voice, appearance, touch, distancing, timing, and physical surroundings that together make communication whole (Burgoon, Guerrero, & Floyd, 2016). E-leadership has emerged within the literature regarding virtual leadership to provide a framework that combines existing leadership styles with advanced information technology to meet the leadership needs of the distributed workforce. In a study conducted by Jacobs (2008) of 16 field-based engineers and 8 managers from two UK companies, it was found that organizational commitment can be reinforced if there is continuous proactive support and personalized relationship building. A leader must be conscious that individuals perceive career success as intrinsic with job satisfaction or extrinsic by achieving increased pay or leadership roles as a result of their work experiences (Judge, Higgins, Thoresen, & Barrick, 1999). Distributed team members are concerned about how their respective career development will progress given the limitations for communication on distributed teams and rely on the team leader to be cognizant of individual needs for growth (Fisher & Fisher, 2001). The differences between colocated, virtual, and distributed teams go beyond distance and technology, how leaders and followers adapt to the environment will dictate the level of success for the organization, the team, and ultimately the individual (Clemons & Kroth, 2011).

This qualitative phenomenological study was constructed as a method to explore the lived experience of subordinates and gain an understanding of the
perceptions of leadership activities that support or hinder career development on distributed teams. The intent of this study was to explore why the distributed environment alters leadership strategies from the perspective of the dispersed team member. Researchers use phenomenology to examine the lived experience of participants and their perceptions with regard to the phenomenon in their environment (Moustakas, 1994). The lived experience, as explored through qualitative research, is an understanding of how individuals respond to and are shaped by the experiences they encounter in everyday life (Given, 2008). Phenomenology creates meaning of the embodied experience contributing to a deeper understanding of the experience (Starks & Trinidad, 2007). According to Creswell (2014), a qualitative research study focuses on the people in their natural environment to interpret and bring meaning to their experience of the phenomenon.

Through this phenomenological study, the researcher explored the phenomenon of leadership and career development on distributed teams in a geographically dispersed environment. A review of the literature on organizational teams detailed how distributed teams are inherently more complex than traditional teams with distributed teams having a focus on the social challenges as a result of geographic dispersion (Hinds & Kiesler, 2002). Leaders can guide subordinate career development by devoting time to encourage individual team members by promoting participation with empowering activities and roles (Judge, Simon, Hurst & Kelley, 2014). Leadership is charged with fostering trust, communication, and
development for individuals while guiding the team to meet organizational goals and enhance team effectiveness (Morgeson, DeRue & Karem, 2010). The overarching objective of this study was, therefore, to provide further insight into what subordinates identify as significant influences of leadership activities that support or hinder career development on distributed teams in geographically dispersed environments.

**Background and Rationale of the Study**

As organizations are relying more on geographically dispersed teams and the team’s collaborative efforts, the workplace has evolved to provide more accommodations to allow teams to communicate and work together (Avolio & Dodge, 2001). From phone, messaging, and live video conferencing, technology has made communicating over distances less of an effort than in years past. The staggering pace of the development of Advanced Information Technology (AIT) has continued to impact not just how people live, but how they work (Avolio et al., 2014). Avolio, Kahai, and Dodge (2001) built upon earlier work by DeSanctis and Poole (1994) to define AIT as “tools, techniques, and knowledge that enable multiparty participation in organizational and inter-organizational activities through sophisticated collection, processing, management, retrieval, transmission, and display of data and knowledge” (p. 616). As the use of AIT transforms an organization, the impact on the way people build relationships and communicate has transformed as well. How organizations and leaders implement AIT within the
distributed team environment can impact more than the overall team’s performance, it can have significant effects on how individual team members perceive career development.

Organizations remain reliant upon techniques and leadership styles to manage colocated teams and have not made significant strides in adjusting leadership techniques to meet the demands of virtual teams and have not fully recognized the additional challenges of distributed teams (Avolio et al., 2014). As organizations continue to expand globally and rely more on teams to achieve organizational goals, distributed teams have begun to distinguish themselves apart from traditional colocated teams and virtual teams. Colocated teams reside within a common workplace and have established their working habits within the corporate culture (Olson & Olson, 2000). Colocated teams benefit from consistent face-to-face communication and use technology to enhance communication between the leader and team members. Virtual teams tend to rely more on technology to communicate; however, they can be colocated or dispersed, and have more regular opportunities to meet face-to-face with the leader or other team members (Bell & Kozlowski, 2002). The reality of the current global environment, however, is that teams very often do not have regular opportunities to meet face-to-face, with some teams forming and operating without the team leader or team members ever meeting outside of technology-driven communication. These teams, referred to as distributed teams, are geographically dispersed and must carry out interdependent
tasks to achieve a common goal while using technology as the primary means for communication and collaboration (Bell and Kozlowski, 2002). The literature on teams and leadership has not provided enough focus on the individuals within distributed teams and the individual perceptions of career development.

Traditional styles of leadership such as transformational according to Burns (1978) exists when leaders transform their subordinates by engaging with them in such a way that both leaders and followers are elevated to higher motivation and ethical behavior. Transformational leadership has been linked to higher commitment, involvement, loyalty, and performance in geographically dispersed teams (Bass, 1999). The influence of transformational leadership is particularly true in situations where the team lacks traditional face-to-face collaboration (Allen & Vakalahi, 2013).

Leaders who exhibit transformation leadership behaviors are rated higher by followers (Judge & Bono, 2000; Yukl, 2008) however the effectiveness begins to diminish as virtuality increases with larger and permanent geographic dispersion (Lilian, 2014). Leaders can strengthen the effectiveness of transformational leadership by applying additional forms of leadership that enhance transformational characteristics (Hoch and Kozlowski, 2014). Two prominent forms of supplemental leadership found in distributed team literature are shared leadership and emergent leadership. Shared leadership is where the leader distributes leadership influence across multiple team members (Carson, Tesluk, and Marrone, 2007). Emergent
leader, therefore, is where subordinate’s step-up and take on unofficial leadership positions by initiating, scheduling, and integrating between team members (Pearce, Yoo, & Alavi, 2004). E-leadership has emerged within leadership literature by providing a framework for leaders to use existing leadership styles and combine advanced information technology to meet the leadership needs of the distributed workforce.

E-leadership used as a framework for leaders to use technology as a successful mediator does not replace the core attributes of traditional leadership theory (Gurr, 2004). E-leadership can be used by leaders as a social influence process mediated by AIT when teams are geographically dispersed (Avolio et al., 2001). The e-leadership constructs can enhance relationships across organizational teams that are geographically dispersed and where communication is mediated by AIT (Avolio & Kahai, 2002). By focusing on technology as the mediating factor and using traditional leadership theories and styles, e-leadership is postured to connect how leadership is defined within the global landscape.

Leadership, as defined by Yukl (2006), is “the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives” (p. 8). In a colocated environment, people who are brought in to form a team often have already established interpersonal relationships with other team members and the team leader (Harrison, Mohammed, McGrath, Florey, &
Vanderstoep, 2003). The impact of face-to-face interaction cannot be understated, with examples evident at the highest level of global interaction. Recent historical events where Secretary of State Mike Pompeo said, “Anytime you get the chance to meet face-to-face with someone, you get a better read about what they’re thinking” (Scanlan & Finnegan, 2018, para. 3) underscores the importance of face-to-face relationships.

Leaders must monitor organizational goals and objectives but cannot lose sight that leaders are a significant part of employee growth and development to achieve individual career goals (Renee Barnett & Bradley, 2007). An important function of a leader is to provide individual coaching and feedback to promote career growth in subordinates (Kozlowski & Bell, 2003). Career development aligns the organization, leader, and employee to common values, interests, and skills as a continuous lifelong learning and growth process (Giannantonio & Hurley-Hanson, 2006). Career development should be a collaborative effort between the leader and subordinate, where each contributes equally to achieve individual success. Distributed teams create a unique environment that mediates the leader-follower relationship with AIT, using e-leadership to combine leadership and technology to manage geographically dispersed teams and facilitate subordinate career development.

Technology has expanded the global economy, and some organizations have found the need to deploy a distributed workforce has become increasingly
important to remain competitive (Gilson et al., 2015). Unlike traditional teams, a
distributed team works across space, time, and organizational boundaries with links
strengthened by webs of communication technologies (Schulze & Krumm, 2017).
Organizations that have or are planning to deploy distributed teams as a business
process to meet the requirements of globalization would benefit from
understanding the challenges leaders and team members face from mediating
relationships with AIT while geographically dispersed (Schulze, Schultze, West, &
Krumm, 2017). Organizations and processes are managed and executed by people,
who have a direct impact (good or bad) on the end result. The use of distributed
teams creates challenges for both leaders and followers to build and maintain
relationships and could impact career development. By conducting this qualitative
phenomenological study, the gap in the literature on leadership and teams will have
more focus on what specific areas of study regarding career development need
future research.

**Statement of the Problem**

Many organizations continue to adopt distributed teams as a primary way to
structure global work, and the recent growth in utilization has outstripped theory
and research on distributed teams (Dulebohn & Hoch, 2017). The expanding global
economy demands that organizations often place highly experienced and
knowledgeable workers far from the home office. The geographic dispersion of
distributed teams precludes spontaneous social interaction between team members
and the team leader. As a result, team members can experience lower motivation and organizational commitment in a distributed team environment (Fiore, Salas, Cuevas & Bowers, 2003). Judge and Kammeyer-Mueller (2012) noted only in recent years has research demonstrated that interpersonal relationships and leadership have a profound effect on individual job satisfaction.

Harker, Martin, and MacDonnel (2012) conducted empirical research using 19 studies on the effectiveness of dispersed work, finding some studies combined the leader and follower perspectives leading to an ambiguous understanding of the individual effects. Leadership in a virtual environment must compensate for the absence of the elements inherent in a traditional colocated environment, such as non-verbal cues, face-to-face interactions, and interpersonal social relationships that provide context and help establish a shared understanding of the setting (Zofi, 2012).

The leadership of a distributed team must account for not just technology, but it also must recognize the unique constant of permanent geographic dispersion that identifies a distributed team separate from a traditional colocated team (DasGupta, 2011). A review of past and recent leadership research involving geographically dispersed teams uncovered that there had been little to no focus on the subordinate and their perceptions of career development. Understanding how e-leadership can impact individual career development is one step to bridge the gap in leadership research (Avolio et al., 2014). This qualitative study focused on
answering questions related to what distributed team members perceive to be significant leadership influences that can support or hinder career development. The results of this study added knowledge to the existing literature while also providing organizations insight into the effectiveness of distributed team leadership.

**Purpose of the Study**

The purpose of this qualitative phenomenological study was to explore subordinate perceptions of leadership activities that support or hinder career development of members of distributed teams. The findings added to the existing body of knowledge of e-leadership by providing insight into the effectiveness of e-leadership with respect to the career development in distributed teams. By focusing on the individual experience, this study shared the perspective of distributed team members and whether they perceive the challenges of geographic dispersion affect career development and if the challenges can be overcome by mediating leader-follower relationships with AIT. This study also explored whether distributed team members feel individual career development is potentially at risk due to the geographic distance from their team leader. Understanding whether distributed team members perceive being at a disadvantage by not being part of a colocated team will aid organizations and leaders in evaluating the process of using distributed teams and how subordinate career development is managed. The qualitative research conducted by this study expanded the knowledge base that
serves as a tool for organizations and leaders of distributed teams to understand and improve the distributed team environment. Understanding why subordinates perceive career development differently on distributed teams puts a focus on the gap in the literature on leadership and teams regarding career development. By identifying specific areas of study regarding career development in need of future research, a quantitative research method in the future can be used to generalize the findings from a larger sample population.

**Questions that Guided the Research**

This study explored the principal research question RQ1 and additional sub-questions number RQ1a and RQ1b.

**RQ1.** What do subordinates perceive to be significant influences of leadership activities that support or hinder career development on distributed teams?

**RQ1a.** Are distributed team leaders effectively utilizing technology to mitigate the challenges resulting from the lack of face-to-face interaction?

**RQ1b.** Do distributed team members consider themselves being at a disadvantage compared to colocated team members on aspects of career development?
Definition of Terms

This section clarifies the terms used in this study. The terms clarified include acronyms, terms that have special meaning, and other common terms that have a particular meaning in the context of this study.

Career development. The alignment of the organization, leader, and employee to common values, interests, and skills by embarking on a continuous lifelong learning and growth process (Super, 1957; Baruch, 2006; Giannantonio & Hurley-Hanson, 2006).

Colocated team. Teams that exist in the same location and gain the advantage of face-to-face communication within their workspace (Hinds & Weisband, 2003).

Distributed team. Teams of geographically dispersed employees with a common goal of carrying out interdependent tasks using technology for communication and collaboration (Bell and Kozlowski, 2002; Jarvenpaa and Leidner, 1998; Majchrzak et al., 2000).

Effectiveness. Refers to aspects of control and external processes which emphasize competition, goal achievement, production, and benefit-oriented measures (Aube & Rousseau, 2011; Quinn & Rohrbaugh, 1983).

E-leaders. Know technology, its effective use, and the business direction of the organization (Mohammad, 2009).

E-leadership. “A social influence process mediated by AIT to produce a
change in attitudes, feelings, thinking, behavior and/or performance with individuals, groups and/or organizations” (Avolio et al. 2001, p. 617).

**Face-to-face.** Physical interactions where nonverbal cues such as body, face, voice, appearance, touch, distancing, timing, and physical surroundings all play a part in creating the total communication (Burgoon, Guerrero, & Floyd, 2016).

**Geographic dispersion.** Physical dispersion of group members across geographically distant locations, thus necessitating the use of technology support for group tasks (Gibson & Cohen, 2003).

**Globalization.** The concept of international integration of products, ideas, and culture brought about by advancements in technology, transportation, and the internet. Globalization results in greater interdependence of economics and cultural activities (Strobl, & Kohler, 2013).

**Job satisfaction.** The level of contentment employees have with their work, especially that which can impact performance (Amundsen, & Martinsen, 2014).

**Job attitudes.** “Evaluations of one’s job that express one’s feelings toward, beliefs about, and attachment to one’s job” (Judge & Kammeyer-Mueller, 2012, p. 344).

**Leadership.** “The process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives” (Yukl, 2006, p. 8).
**Teams.** “Collectives who exist to perform organizationally relevant tasks, share one or more common goals, interact socially, exhibit task interdependencies, maintain and manage boundaries, and are embedded in an organizational context that sets boundaries, constrains the team, and influences exchanges with other units in the broader entity” (Mathieu, Maynard, Rapp, & Gilson, 2008, p. 411).

**Trust.** “The willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party” (Mathieu et al., 2008, p. 429).

**Virtuality.** The degree to which a group has temporal, cultural, spatial, and organizational dispersion and communicates through electronic means (Shin, 2004).

**Virtual team.** Teams that can be colocated or dispersed, sometimes across different time zones and might not regularly meet face-to-face. They collaborate through electronic communication, even if colocated (Bell & Kozlowski, 2002).

**Significance of the Study**

Organizations in the 21st century have changed dramatically in response to globalization and technological advancements (Avolio et al., 2014). The increasing prevalence of distributed teams as a means for organizations to react to globalization can impact the relationships between leaders and followers (Hinds & Mortensen, 2005). While distributed teams can equally benefit from the
advancements of technology, these teams are more susceptible to professional and social isolation over time (Golden, Veiga & Dino, 2008). Organizations, leaders, and subordinates must understand how these fundamental changes affect them professionally and personally. Current research has not kept pace with distributed team development and utilization, creating a gap in the leadership and organizational team literature regarding the challenges distributed teams face. Most notably, there is little to no research on the effect the absence of face-to-face interaction and permanent geographic dispersion has on the perceptions of individual career development. This qualitative study added knowledge to the existing literature on e-leadership while benefiting all levels of organizational leadership where distributed teams are used and provide needed research concerning the impacts of e-leadership on individual career development.

**Assumptions and Limitations**

The focus of this study centered on what subordinates identify as significant influences of leadership activities that support or hinder career development on distributed teams in geographically dispersed environments. To achieve a successful study, the researcher considered any assumptions and limitations that could potentially affect the outcome. The first assumption was the value of the data and that the data collected from the participants through the interview process would be relevant to the study. The second assumption was that the participants would answer all questions truthfully and understood the study being conducted.
The third assumption was that enough participants would volunteer to provide their candid and truthful responses to explain their individual lived experiences on distributed teams.

The limitations of this study were on the selection and sample of participants. This study canvassed three distributed teams belonging to a single industry-leading global aviation corporation that utilizes an extensive network of field support representatives (FSR) to provide product support for domestic and international customers at their operating sites across the world. Another limitation was that this was a US company and all participants are US citizens, acknowledging cultural or ethnic differences could exist but not factored. Limiting the participants to a US company and to only US citizens was due to export control regulations in place on some of the supported contracts and customers that could impact participant availability.

**Organization of the Remainder of the Study**

Chapter one introduced the background and rationale of the study, statement of the problem, purpose of the study, questions that guided the research, definition of terms, and significance of the study. The remainder of this qualitative study will be covered in Chapter two, the review of the literature and Chapter three, the qualitative methodology chosen to conduct this study. Presented in Chapter four is the data analysis, while the conclusions, recommendations, implications for practice, and suggestions for future research are presented in Chapter five.
Chapter 2. Literature Review

Overview

The purpose of this chapter was to review historical and current research that enriched the knowledge of various types of organizational teams, the use of advanced information technology and the way team leadership has evolved in today’s global workplace. This literature review attempted to promote an understanding of the key topics to this study. Along with providing the context of each topic, the review explored the relationships between each topic to promote an understanding of how they could impact subordinate perceptions of career development on distributed teams.

The first section focused on colocated teams, virtual teams, and distributed teams. The review highlighted the similarities of team structure while pointing out key differences that make them unique. The second section expanded upon how Advanced Information Technology (AIT) has become an intermediary between leaders and followers. The types of technology used across organizations were compared to the advantages and disadvantages of how technology affected the individual. Following the section on technology applications, the review explored key leadership theories and how they are used to manage organizational teams. The leadership theories researched are transformational, shared leadership, and emergent leadership. Each of these leadership theories can apply to the various types of teams while also providing focus to individual team members. The next
section was a culmination of leadership research, which served as the foundation for the development of the current e-leadership construct. Finally, the last section looked at career development and how leadership can shape the growth of subordinates. This section explored the responsibilities of the organization, leader, and subordinate when it came to balancing organizational goals and objectives while meeting subordinate career aspirations. The literature review was formed by the e-leadership construct, which identified key theories and literature that distinguish distributed teams from other forms of traditional and virtual teams. The review highlighted that even though much literature exists on teams and leadership, the gap that needs to be explored centers around the e-leadership framework and the influence technology has on subordinate career development.

Questions that Guided the Research

The principal question which guided the research and scope of the literature review was: What do subordinates perceive to be significant influences of leadership activities that support or hinder career development on distributed teams? This is then supplemented by two additional sub-questions that highlight the constraints of a distributed team and how ultimately this could affect subordinate perceptions.

**RQ1a.** Are distributed team leaders effectively utilizing technology to mitigate the challenges resulting from the lack of face-to-face interaction?

**RQ1b.** Do distributed team members consider themselves being at a
disadvantage compared to colocated team members on aspects of career development?

The principal research question determined the literature reviewed regarding organizational teams, advanced information technology, and leadership theory. The secondary questions broadened the scope of the literature reviewed to illustrate how technology mediates relationships on distributed teams and the effect this could have on individual perceptions of career development.

**Method for Reviewing the Literature**

The literature review was conducted using multiple keyword searches, backward reference searches, and forward reference searches. In addition, backward author searches were used to uncover additional literature which may have been part of a developmental process for the topic. Articles were cataloged by subject with the source and database documented. Multiple journals were used along with books, previous dissertations, and conference papers. Not all literature was found to be useful for this study; thus, it was not included in the reference section of this study. The researcher discovered that recent literature had not addressed the follower to the same extent as the leader. To convey the scope of this absence, it was necessary to include older literature to supplement the current research available. The range of dates for the literature review emphasizes that more progress needs to be made to understand this phenomenon. The literature search concluded when there was a saturation of the material, and no new
information was present. The literature chosen represents the chronological evolution of each topic’s historical and current relationship to the study.

**Organizational Teams**

In order to understand how a distributed team structure can impact career development, it is necessary to recognize that the published literature on teams and leadership is copious, albeit diverse (Kozlowski & Bell, 2013). Literature has been found to group colocated, virtual, and distributed teams together, especially in today’s environment, when advanced technologies are being utilized for communicating around the globe (Saunders & Ahuja, 2006). Additionally, the literature to date has predominantly focused on the organization or the leader, viewing the follower in a passive context (Avolio, 2007). Organizations rely upon teams across the business, but as these organizations expand globally, traditional face-to-face teams are not practical (Olson & Olson, 2000). Within the current literature, one will find various terms, such as remote teams, virtual teams, and distributed teams (Saunders & Ahuja, 2006). On the surface, these teams are similar in concept but do have subtle differences that need to be taken into consideration (Anderson, McEwan, Bal & Carletta, 2007). Organizations are embracing the transformation of teams from a brick & mortar cohabitation to an all-digital global team, with emerging research contributing to the growth of scholarly knowledge (Gilson et al., 2015).

As teams continue to be used more prevalently within the organizational
structure, the quantity of research addressing team theories has expanded (Kozlowski & Bell, 2013). Recent studies have benefited from the wealth of credible research and relevant information focused on organizational teams (Day, Fleenor, Atwater, Sturm & McKee, 2014). To relate the academic literature to how the current global organization operates, defining teams from the development of groups provides the necessary foundation that organizations continually rely on even today (Kozlowski & Bell, 2003).

Tuckman (1965) provided the structure of development of small groups through four stages of development, comprised of forming, storming, norming, and performing, with a fifth stage, defined as adjourning added years later by Tuckman and Jensen (1977). The Tuckman model was an important milestone for team research that emphasized groups and teams are part of the mainstream organization characteristics but were under-defined by relevant research (Bonebright, 2010). The author noted that key to this research is though originally defined for use mainly in the practitioner environment, acceptance eventually found its way into academic literature as well (Bonebright, 2010). The early stages of team development afford opportunities to build relationship and trust, which becomes more difficult as teams move further away from the colocated structure and become more geographically dispersed (Furst, Reeves, Rosen & Blackburn, 2004). Humphrey and Aime (2014) noted that even though the Tuckman Model only had a single direct empirical test (Runkel, Lawrence, Oldfield, Rider, & Clark, 1971), it still retains acceptance
within the academic literature. Finally, the Tuckman model relates to current team research and definition in that individual team members will have unique interpersonal challenges in each stage of development (Humphrey & Aime, 2014).

As researchers continued to cultivate the understanding of teams, Mathieu et al. (2008) adopted the definition proposed by Kozlowski and Bell (2003) describing teams as:

Collectives, who exist to perform organizationally relevant tasks, share one or more common goals, interact socially, exhibit task interdependencies, maintain and manage boundaries, and are embedded in an organizational context that sets boundaries, constrains the team, and influences exchanges with other units in the broader entity. (p. 411)

This definition encompasses the team concept and describes a concise and relevant framework that can be applied to various organizations while also noting that teams have a degree of interdependence (Mathieu et al., 2008). The Tuckman model heavily influences the colocated team where the face-to-face interaction is prominent, thus aligning with the spirit of the traditional definition of teams (Stark, Bierly, & Harper, 2014).

**Colocated Teams**

Colocated teams align seamlessly with the traditional definition of a team, in that they reside in close proximity, routinely communicate face-to-face, and build interpersonal relationships through informal social interaction (Hind &
Kiesler, 2002). This is because a colocated team can exist without external limitations due to the constant interaction among team members (Marks, Mathieu & Zaccaro, 2001). Colocated teams typically are long-term teams who have established their working habits within a corporate culture and reside in the same community (Olson & Olson, 2000). Each team member is also more visible to the leader, other team members, and the organization, which allows for long-term influence on shaping employee behavior (Kozlowski & Bell, 2003). Kiesler and Cummings (2002) posit that face-to-face discussion has a substantial impact on team relationships and is the most influential medium for team coordination.

It is true that most colocated teams use technology to communicate, but Mortensen and Hinds (2001) emphasize this is by choice, not out of necessity. Colocated teams that communicate through AIT typically use such technology to supplement face-to-face communication (Bell & Kozlowski, 2002) (see Figure 2). Baumeister and Leary (1995) found in their research that human beings are fundamentally and pervasively motivated by a need to belong, that is, by a strong desire to form and maintain enduring interpersonal attachments. A colocated team will develop together by sharing a common space and developing individual roles using the physical interaction as the catalyst (Bishop, Scott & Burroughs, 2000). The interpersonal connection and socialization that a colocated team provides tend to strengthen the commitment of individuals to the team and the organization (Powell, Galvin & Piccoli, 2006).
Figure 2. Colocated Team. This figure represents a colocated team and team leader located at the same location. Face-to-face interaction is represented by the solid line. The outside box represents the physical organization. The dashed lines represent the virtuality of the team.

Colocated teams are likely to transition through Tuckman’s stages of team development quickly when there are no permanent geographic boundaries which require technological mediation (Hinds & Bailey, 2003). In this situation, team leaders also have direct contact with subordinates to monitor visual cues through daily interaction, providing feedback based on observed behavior (Powell et al., 2006). Followers who are colocated with their team leader tend to develop stronger interpersonal relationships over time and can increase the potential for growth (Currie & Ryan, 2014). Colocated teams adhere closely to the traditional team definition, but as organizations expand globally, they must adopt alternate team structures that can operate with reduced social interaction and reliance on virtual communication, these virtual teams must overcome the proximity boundaries (Zhou & Shi, 2011).
Virtual Teams

The decentralization and globalization of the economy have forced many organizations to develop dynamic environments where collaboration is through predominantly digital communication, and team members are at times geographically dispersed (Hertel, Geister & Konradt, 2005). Bell and Kozlowski (2002) differentiated between virtual teams and conventional (traditional) teams by distinguishing (a) spatial distance and (b) information, data, and personal communication (See Figure 3).

![Figure 3. Characteristics Between Virtual Teams and Conventional Teams. The attributes in bold represent the primary mode used by each team. Adapted from A typology of virtual teams: Implications for effective leadership, by B. S. Bell & S. W. Kozlowski, 2002, Group & Organization Management, 27(1), 14-49, p. 22. Copyright 2002 by Sage Publications.]

The key component that makes the team virtual is not the distance between team members, but instead, the preference of team members to use AIT (Bell & Kozlowski, 2002). Teams located in the same office often use e-mail to avoid a trip
to another floor or building; this decision makes them technology dependent but not geographically dispersed (Gibson & Gibbs, 2006). Virtual teams are less about the distance which separates them from other team members and the organization but a function of the team (Liao, 2017). Alternately, teams can be placed along a continuum that represents various levels of virtuality (Kirkman & Mathieu, 2005; Lu et al., 2006). Though virtuality on a team provides flexibility to the team and the organization, this can promote interpersonal challenges from the decrease in social interaction (Hoch & Kozlowski, 2014).

Virtual teams allow people to collaborate productively at a distance, but the loss of spontaneous social interaction can degrade relationships and trust (Ebrahim, Ahmed & Taha, 2009). Anderson et al. (2007) suggest that during the early stages of team development, team members must effectively use communication to establish trust. Communication on a virtual team needs to be more predictable, and often times should be scheduled well in advance (Gilson et al., 2015). This holds true when the team spans multiple time zones, which could make coordinating times more difficult (Rutkowski et al., 2007). These challenges are manageable if the organization deploys the right technology and provides the proper training to all team members (Wildman & Griffith, 2015).

Despite the challenges associated with virtual teams, they do promote opportunities for organizations to conduct business without proximity constraints (Avolio & Kahai, 2002). Virtual teams can recruit talent regardless of their
location, decrease response time, and provide greater flexibility to individuals working within a central facility or remotely (Hunsaker & Hunsaker, 2008). Virtual teams also can reduce overhead if team members work directly from their homes (Lojeski & Reilly, 2008). Virtual team structures are comprised of team members who colocate and have team members who are geographically dispersed (Dulebohn and Hoch, 2017) (See Figure 4). The nature of team virtuality inherently affords some or all team member’s opportunities to meet face-to-face, however recent shifts in how organizations maintain a global presence has seen a growing reliance on distributed teams, teams that do not have face-to-face opportunities, as permanent fixtures for an organization (Avolio et al., 2014).
Figure 4. Virtual Team. This figure represents a colocated team and team leader located at the same location while virtual members of the team are geographically dispersed. Face-to-face interaction is represented by the solid line. The outside box represents the physical organization. The dashed lines represent the virtuality of the team.

Distributed Teams

As the globalization of markets, business, and production continue to expand; more organizations are recognizing that the workforce needs to maintain a permanent geographically dispersed presence (Liukkunen & Markkula, 2012). The growth of globalization in recent decades has often been cited by economic analyst as a result of the following seven factors:

- Increase in and application of technology;
- Liberalization of cross-border trade and resource movements;
• Development of services that support international business;
• Growth of consumer pressures;
• Increase in global competition;
• Changes in political situations and government policies;
• Expansion of cross-national cooperation (Daniels, Radebaugh & Sullivan, 1998).

The global virtual workforce continues to grow at a rapid pace, with more companies utilizing global teams as a critical mechanism for integrating information, making decisions and implementing actions around the world (Maznevski & Chudoba, 2000; Canney, Davison & Ward 1999). Organizations capable of rapidly creating teams of talented people who can respond to the needs of the customer are destined for success in the competitive and complex global economy (Bergiel, Bergiel & Balsmeier, 2008; Kankanhalli, Tan & Wei, 2007). In the global economy, distributed teams become an extension of the company, providing a presence the company otherwise would not have (Cummings, 2004; Greer & Payne, 2014).

Distributed teams are often labeled as virtual teams, essentially teams which communicate using technology to overcome location and time dispersion (Saunders & Ahuja, 2006; Cramton, 2001). Virtuality of a team does not preclude some members of the team from meeting face-to-face; thus, geographic dispersion is not a constant restriction on the team (Fuller, Hardin & Davison, 2006). Distributed
teams, therefore, are defined by geographic dispersion, relying on AIT throughout all aspects of team collaboration (Liukkunen & Markkula, 2012). The distributed team becomes a highly effective competitive advantage, one that can respond to changes in the dynamics and holistic business environment (Karia & Asaari, 2016).

Distributed teams are distributed work modes that enable employees to perform tasks while working from remote locations using information and communication technologies to interact with others within and outside the workplace (Gajendran, Harrison & Delaney, Klinger, 2015). Unlike virtual teams or colocated teams with permanently located team members in central locations or hubs, distributed teams at times will place only the team leader in a central location (Bos, Shami, Olson, Cheshin & Nan, 2004) (See Figure 5). This allows the team leader to have direct access with various support and administrative functions within the organization (Duarte & Snyder, 2006). This arrangement is perceived as normal within a distributed team, and all members are exposed to the same social limitations (Gajendran et al., 2015).
A distributed team must embrace digital social interaction in today’s environment by recognizing there are fewer restrictions from the absence of physical boundaries and accepting technology mediates interpersonal relationships (Montoya, Massey, Hung & Crisp, 2009). Relationships on distributed teams take longer to form since team member familiarity is molded without physical, social interaction (Hinds & Mortensen, 2005). Sorenson and Stuart (2001) contend that individuals typically must meet in space and time or a decline in interpersonal interaction will result from the geographic and social distance. The team structure
and work process are at significant risk if uncertainty and ambiguity from the lack of face-to-face exists among team members (Nurmi, 2011). Without the physical interaction as a catalyst to develop relationships, as distributed teams develop, they will struggle to follow the framework outlined by the Tuckman model of team development (Duarte & Snyder, 2006). Social behaviors will be less noticeable without visual cues making conflicts harder to identify (Lipnack & Stamps, 1997). Fortunately, temporary disruptions rarely have lingering effects on the group dynamics, simply because there is not enough time for such reactions to take hold (Saunders, Van Slyke & Vogel, 2004). Teams that form by only using AIT to communicate and collaborate will need to be cognizant that team dynamics are affected by both the task and social development (Duarte & Snyder, 2006). If the social development of the team is slow to form from geographic dispersion, team members may become isolated, feeling their personal contributions are not crucial to the team’s success (Hertel, Konradt & Orlikowski, 2004).

The increased virtualization of today’s economy no longer requires people to work together in physical locations; they only need the tools and resources to collaborate (Whitehead, Wheeler & Harrison, 2004). Distributed teams allow for the greatest flexibility within an organization, but at the same time require specific resources and leaders who understand the challenges of geographic dispersion to be successful (O’Leary & Cummings, 2007). The geographic dispersion of the distributed team can have significant social and psychological impacts on
individuals (Hinds & Bailey, 2003). Technology is the mediator used to lessen the impact on distance, thus how the organization and team leader implements technology will influence the team's social structure (Avolio et al., 2014).

**Technology Applications**

The reliance on geographically dispersed teams has increased the need for organizations to adopt more advanced methods of communication to allow teams to communicate and work together (Avolio & Dodge, 2001). The advancement and the widespread adaptation of AIT has changed the way people interact by virtually connecting people across physical distance and allowing teams to become a key resource for the global workforce (DeSanctis & Poole, 1994; Orlikowski, 2000; Orlikowski & Scott, 2008; Yoo, Boland, Lyytinen & Majchrzak, 2012). Customers are spread around the globe, making AIT the standard for communication when an organization must use geographically disperse people and teams to establish localized customer support (Vomberg, Homburg & Bornemann, 2015). Technology is viewed as the virtual bridge to close the spatial gap caused by the increased geographic proximity of team members and to shrink markets by connecting people and industry (Koehne, Shih & Olson, 2012). Organizations need to develop the infrastructure that will facilitate the distributed team requirements, which if properly deployed can result in positive influences on the overall performance of teams to meet organizational goals (Saunders & Ahuja, 2006).

Technology was marketed as a potent response to the challenges associated
with downsized and lean organizations, and the resulting geographical dispersion of essential employees (Townsend, DeMarie & Hendrickson, 1998). Organizations needed a way to virtually link workers within the central office and around the globe in a way that they can communicate, structure, and share information with colleagues anytime and anyplace (Bélanger & Allport, 2008). Standard suites of technology facilitate communication and increase productivity to complete projects (Griffith, Sawyer & Neale, 2003). The following list is not all-inclusive but represents the enormous selection of mediums to choose from:

- Landline telephones;
- Pagers;
- Conference calling;
- Video conferencing;
- e-mail;
- Real-time data streaming;
- Real-time alerts;
- Graphical user interfaces (i.e., multitasking operating systems);
- Digital dashboards;
- Mobile telephones;
- SMS/text messaging;
- Digital cameras;
- Browsers (the Internet/Web);
• Chat rooms;
• On-line messaging;
• Social networking (Bannister & Remenyi, 2009, p. 3).

As technology continued to advance, mobile devices allowed for instantaneous sharing of information and collaboration, incorporating many of the technologies available (Bélanger & Allport, 2008). Kirkman, Rosen, Tesluk, & Gibson (2004) stated that as technology became an ever-increasing part of the work environment, colocated teams and distributed teams were sharing resources and methods. Technology has permitted greater sharing of information and can supplement face-to-face interaction on colocated teams through video conferencing or other video sharing platforms (Bell & Kozlowski, 2002). What technology cannot equal is how face-to-face interactions facilitate nonverbal cues such as body, face, voice, appearance, touch, distancing, timing, and physical surroundings (Burgoon, Guerrero, & Floyd, 2016).

The individual, ultimately for whom all this technology is meant for, must not be neglected for the sake of advancements (Asthana and Panda, 2002). The very tools that the organization supplies to the individual team members to cope with the remote environment can induce more stress, and consequently, individuals need to develop personal coping strategies as a result (Koehne et al., 2012). Nurmi (2011) stated that an individual adopts coping strategies with the intention of reducing the effects of stress. If the technology deployed by the organization leads
to a lack of autonomy, competence, or relatedness, then the individual can experience stress, demotivation, and low commitment (Cascio & Montealegre, 2016). Differences in local physical context, time zones, culture, and language all persist despite the use of advanced information technologies (Olson and Olson, 2000). Technology and leadership influence each reciprocally; leaders lead through technology, and leadership itself affects how technology is used (Avolio et al., 2014).

**Leadership in Organizations**

Just as teams have evolved and adapted to how AIT has mediated the way teams communicate, organizations and team leaders must consider how technology influences people and decisions (Avolio & Kahai, 2002). The literature review of organizational teams emphasizes that even though the global economy continues to evolve, teams are the core building block of organizations (Kozlowski & Bell, 2013). The field of leadership is not focused solely on a leader’s individual characteristics or differences, but also on followers, peers, and global work settings (Avolio, Walumbwa & Weber, 2009). Leaders are actively recruited to maximize the potential of the organization and ultimately grow the business (Northouse, 2018). As organizations shift from work organized around individual jobs to team-based work structures, so must leaders (Kozlowski & Bell, 2013). Team leaders monitor team performance while achieving organizational goals but are also responsible for developing and shaping the team (Kozlowski & Bell, 2003). As
traditional leadership theories evolved to account for the demands of the organization team, leaders must also evolve to meet the challenges of managing teams that are geographically dispersed (Malhotra, Majchrzak & Rosen, 2007).

**Traditional Leadership Theories**

Organizations have responded to the growth of the global economy by advancing how they deploy teams and by adopting new technologies that teams can use to stay connected (Cascio & Montealegre, 2016). Leadership within teams has historically followed the traditional leadership theories and models that amassed from the vast collection of empirical studies of leadership research (Zhang & Fjermestad, 2006). Avolio and Kahai (2002) suggested that leadership mediated by technology could exhibit the same content and style as traditional face-to-face leadership. Leadership, therefore, has been widely accepted to enable organizations to function effectively by guiding and inspiring the efforts of individuals and teams to achieve organizational goals (Carter, DeChurch, Braun and Contractor, 2015).

Leadership research, and specifically how leadership applies to organizational teams, has shifted from the study of traits and behaviors of the leader to a focus on relationships between leaders and followers (Bass, 1999). Organizational teams operate in dynamic environments where situations may change, but how the leader and the team respond will dictate whether they achieve success for the organization (McCleskey, 2014). Team leaders must not only influence each team member, but they must also maintain effective team interaction
and integration (Zaccaro, Rittman & Marks, 2001). Transformational leadership is not just a strong predictor of individual and team performance; it is one of the most prevalent leadership theories across all types of organizational teams (Hoch & Kozlowski, 2014).

*Transformational Leadership*

Leadership influences the culture within an organization (Bass & Avolio, 1993) and transformational leadership instills trust and motivation to organizational teams through the inspiration of the leader (Bass, 1999). Often mentioned and researched alongside transformational leadership is transactional leadership, which relies on leading through a reward and discipline premise (Jogulu & wood, 2007). Some research has stated the two complement each other. However, within the literature on leadership and teams mediated by AIT due to geographic dispersion, transformational leadership has been linked to higher commitment, involvement, loyalty, and performance (Bass, 1999). The influence of transformational leadership is particularly true in situations where the team lacks traditional face-to-face collaboration (Allen & Vakalahi, 2013).

Face-to-face communication has been theorized to be preferred over technology-mediated communication since, (a) Face-to-face communication is richer in nonverbal clues (visual and auditory), (b) Face-to-face communication minimizes information loss brought on by multiple channels of communication, (c) Face-to-face communication maximizes social presence and conversation, (d) Face-
to-face communication conveys social standing and social context, and (e) Face-to-face communication is less physically and cognitively demanding (Purvanova & Bono, 2009). Even with the advancements and integration of technology into the global workplace, those mediums used most frequently, such as e-mail, messaging, or telephone are absent of the visual cues facilitated by face-to-face communication (Malhotra, Majchrzak & Rosen, 2007). Video conferencing can lessen the disruption and enable periodic instances where mediated communication can be enhanced with visual cues, however most often these are not spontaneous and require more effort and stress to those involved (Gibson & Cohen, 2003). Transformational leaders must then inspire through motivation and energize their teams by directing individual focus on each follower despite the absence of proximal social interaction (Bell & Kozlowski, 2002). Transformational leadership establishes a leader-follower culture by anchoring to the four tenets of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1993).

These four tenets of transformational leadership have been studied in the context of face-to-face and virtual teams (Purvanova & Bono, 2009; Hoch & Kozlowski, 2014) and within research on advances in leadership development (Judge & Piccolo, 2004; Braun, Peus, Weisweiler & Frey, 2013; Day et al., 2014). Each tenet is a leadership characteristic that has a profound effect on the follower (Purvanova & Bono, 2009) but moderators of virtuality may weaken this effect
(Hoch & Kozlowski, 2014) as outlined in Table 1. In the study by Hoch and Kozlowski (2014), transformational leadership was positively affected by the structural support that strengthens communication and by applying additional forms of leadership that enhance transformational characteristics.

Table 1. Tenets of Transformational Leadership.

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<tr>
<td><strong>Idealized Influence</strong></td>
<td>• A charismatic role model</td>
<td>• Lack of personal contact</td>
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<td>• Admiraible, trustworthy, and identifiable</td>
<td>• Isolation</td>
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<td>• Pays attention to the followers needs</td>
<td>• Ambiguity</td>
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<td>• Loyalty to the team and organization</td>
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<td><strong>Inspirational Motivation</strong></td>
<td>• Geographic dispersion</td>
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<td>• Motivates with challenge and meaning</td>
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<td>• Optimistic and develops clear vision</td>
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<td>• Consistent communication</td>
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<td><strong>Intellectual Stimulation</strong></td>
<td><strong>Minimal to no face-to-face</strong></td>
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<td>• Encourages innovation and creativity</td>
<td>• Inconsistent communication</td>
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<td>• Problem solving, solicits followers</td>
<td>• Weak interpersonal relationships</td>
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<td>• Encourages followers to reframe situations</td>
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<td>• Rational, looks for new perspectives</td>
<td>• Less camaraderie</td>
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<td><strong>Individualized Consideration</strong></td>
<td>• Technology infrastructure</td>
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<td>• Coaches and mentors</td>
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<td>• Listens and fosters follower development</td>
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<td>• Supportive of growth and empowerment</td>
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<td></td>
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**Shared Leadership**

Shared leadership, as defined by Carson, Tesluk, and Marrone (2007), is the distribution of leadership influence across multiple team members. Shared team leadership promotes collaborative decision making and gives individual team members increased responsibility (Hoch & Kozlowski, 2014). On distributed teams, shared leadership can create stronger relationships, instill trust, and enforce commitment within the team (Conger & Pearce, 2003). Empirical research has found that team performance increases when leadership is shared with subordinate team members (Avolio, Jung, Murry, & Sivasubramaniam, 1996; Ensley, Hmielecki, & Pearce, 2006; Pearce & Sims, 2002; Sivasubramaniam, Murry, Avolio, & Jung, 2002). Shared leadership creates informal leaders that are part of the everyday dynamics resulting from geographic dispersion; thus, they can effectively adjust actions accordingly (Morgeson et al., 2010). Research has demonstrated that shared leadership compliments transformational leadership, however, Bell and Kozlowski (2002) posit that functions of leadership relating to individual development are more difficult to disperse.

Leaders monitor team performance and progress toward organizational goals (Bell & Kozlowski, 2002) but are also responsible for developing and shaping the team (Kozlowski & Bell, 2003). Teams that collaborate during decision-making and share responsibility for outcomes lead one another to accomplish goals (Day, Gronn & Salas, 2004). As individuals gain greater responsibility within the team, they tend to take ownership if a problem should
arise (Hoch, Pearce & Welzel, 2010b). A team that has strong motivation and commitment to organizational goals using shared leadership to disperse task decisions allows the leader to focus on the individual needs of followers (Carson et al., 2007). Shared leadership fully engages the team with mutual influence, empowering the team while recognizing formal and informal leaders will emerge (Pearce, & Manz, 2005).

**Emergent Leadership**

Leadership does not only stem from a formal role in a top-down structure but can also emerge informally from within the team itself (Mathieu et al., 2008). Emergent leaders are those who rise among the group and are “elected” to the leadership position by initiating, scheduling, and integrating between team members (Pearce, Yoo, & Alavi, 2004). Within the distributed team, it is likely one or more members will step up and informally carry out the leadership functions of the team when time and distance affect the ability of the leader to respond (Carte & Becker, 2016). Along with AIT, emergent leaders can reduce the impact on geographic dispersion and influence the team's social structure on distributed teams (Charlier, Stewart, Greco, & Reeves, 2016).

Distributed teams are connected through technology-enabled organizations, interacting through other than conventional methods of communication (Carte & Becker, 2016). Recognizing emergent leaders who embrace the collaborative technologies used on distributed teams promotes increased participation (Kahai,
Emergent leaders tend to focus their communication around task-oriented dialogue, typically initiate the communication first, scheduled the meetings between the team members, and integrated their ideas to relate them to each other, keeping the team on track and in rhythm (Pearce, Yoo, & Alavi, 2004). As teams have evolved due to geographic dispersion and the use of AIT, leaders have adopted various styles of leadership, but they must also change the way decisions are made given the mediating effects AIT can have on the team and organization (Avolio & Kahai, 2002).

**E-leadership**

How organizations maintain a global presence has seen a growing reliance on distributed teams as permanent fixtures for an organization (Avolio et al., 2014). Although the basic principles of leadership have not changed, how leaders and followers interact using AIT over geographic distances has shifted focus to understanding this paradigm on distributed teams with e-leadership (Avolio & Kahai, 2002). Research has seen the emergence of e-leadership defined by Avolio et al. (2001) as “a social influence process mediated by AIT to produce a change in attitudes, feelings, thinking, behavior and/or performance with individuals, groups and/or organizations” (p. 617). The e-leadership constructs can effectively enhance relationships across organizational teams that are geographically dispersed and where communication is mediated by AIT (Avolio & Kahai, 2002). Leaders that do not embrace and adopt these virtual methods of communication could jeopardize
the success of the team and organization (Ghilic-Micu, Maracine, Stoica & Ciocan, 2011).

E-leadership does not replace the core attributes of leadership theory such as the traits of a transformational leader; e-leadership instead provides a framework for leaders to use technology as a successful mediator (Gurr, 2004). Avolio and Kahai (2002) summarized a number of key issues that will impact how organizations use e-leadership. These issues are as follows:

- Leaders and followers have more access to information and each other, and this is changing the nature and content of their interactions;
- Leadership is migrating to lower and lower organizational levels and out through the boundaries of the organization to both customers and suppliers;
- Leadership creates and exists in networks that go across traditional organizational and community boundaries;
- Followers know more at earlier points in the decision-making process, and this is potentially affecting the credibility and influence of leaders;
- Unethical leaders with limited resources can now impact negatively a much broader audience of potential followers;
- The amount of time and contact that even the most senior leaders
can have with their followers has increased, although the contact is not in the traditional face-to-face mode (Avolio & Kahai, 2002, p. 333).

Leaders must be aware that even if they are using the same leadership style found on traditional teams, how it is applied will be different on a distributed team using e-leadership (Konradt & Hoch, 2007). To be a successful e-leader, relationships and trust must be built quicker than when leading traditional face-to-face teams since relationships do not benefit from social interaction (Avolio & Kahai, 2002, p. 331).

The team structure defined by the organizational needs most often cannot be changed, but e-leaders who successfully navigate the complexity of the environment can build and enhance relationships (Gurr, 2004). On teams mediated by AIT, trust becomes critical since direct supervision cannot take place as on a traditional team (Avolio et al., 2001, p. 652). Trust as defined by Mayer, Davis and Schoorman (1995) is “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party” (Mathieu et al., 2008, p. 429). The relationship between technology and trust is important because information technology can change the context of human relationships (Jarvenpa, Shaw & Staples, 2004; Yukl, 2010).

Leaders who rely on AIT mediated communication face unique challenges
to successfully influence the team, including building trust, sharing information, feelings of isolation, encouraging participation, and enhancing collaboration (Savolainen, 2014). The e-leader must take the role of (a) Team liaison, (b) Team direction setter, and (c) Team operational coordinator (Avolio & Kahai, 2002, p. 335; Zaccaro & Bader, 2002, p. 382). These roles are necessary to achieve the nine principles of team effectiveness as follows:

- Enhancing cohesion;
- Nurturing trust;
- Developing efficacy;
- Generating shared understandings of the team task;
- Promoting sharing of information and ideas;
- Moderating team conflict;
- Managing team affect;
- Facilitating team coordination and integration;

Leaders must remember that e-leadership is just the framework for leadership and technology to coexist, by not using AIT to keep regular, timely communication and video to promote nonverbal cues, reduced communication can negatively impact the follower’s perception of the leader (Avolio & Kahai, 2002, p. 331).
Just as leaders are important to the direction of the team, followers are essential to shaping the team social structure by contributing their unique attributes, skills, and knowledge (Hoch & Kozlowski, 2014). Leaders must actively involve followers to keep them from feeling isolated from the team and organization (Gurr, 2004). Recognizing contributions can contribute to increased follower productivity, motivation, and effectiveness (Anderson, Krajewski, Goffin & Jackson, 2008). Leaders are responsible for developing and shaping the team, coaching and providing feedback, challenging followers, and providing exposure to the organization to open growth opportunities (DeShon, Kozlowski, Schmidt, Milner & Wiechmann, 2004; Judge & Piccolo, 2004; Braun, Peus, Weisweiler & Frey, 2013).

**Career Development**

A challenge organizations and leaders face is how to support employee growth and development to achieve individual career goals while keeping focus on the organization’s objectives (Renee Barnett & Bradley, 2007). Team leaders are responsible for monitoring team performance and team goals but must also be aware that team members are individuals functioning in a team environment (DeShon et al., 2004). Part of being a leader is to provide individual coaching and feedback while exposing followers to the wider organization by assigning challenging opportunities that promote career growth (Kozlowski & Bell, 2003). In a study conducted by O’Connell, McNeely, and Hall (2008), it was found that employee career development was strongly influenced by the level of leader
support and motivation. The support and guidance from a leader aids subordinate development while navigating their specific organizational career goals (Higgins & Kram, 2001).

Career development is unique to each employee, since each individual measures achievement of personal career aspirations and goals differently (Judge et al., 1999). Thus, career development is defined as the alignment of the organization, leader, and employee to common values, interests, and skills by embarking on a continuous lifelong learning and growth process (Super, 1957; Baruch, 2006; Giannantonio & Hurley-Hanson, 2006). Aligning the needs of the employee with those of the organization increases individual commitment, satisfaction, and contribution to the organization (Giannantonio & Hurley-Hanson, 2006). Organizations that develop and follow a strategy, form policies, and continuously evaluate resources to train employees hold a significant role in career development (Baruch, 2006). Organizations rely on leaders to build strong relationships with each team member by contributing to individual career development using positive influence and motivation (Anderson et al., 2008).

Leadership influence and involvement regarding employee career development is key to matching the organizations needs to employee career aspirations and goals (Baruch, 2006). Leaders who solicit employee involvement and listen to individual needs can gain a better understanding of what motivates individual growth (Judge et al., 1999). To facilitate employee career goals, leaders
can then use what motivates employee career growth to create a career
development plan (Gould, 2017). Career development plans act as a career map to
aid professional advancement by (a) understanding career aspirations and goals, (b)
identifying individual strengths and development opportunities, (c) creating a
structured plan that aligns with the organization, (d) implement and monitor plan,
and (e) conduct annual reviews (Van de Ven, 2007). Just as the organization and
leader can have a significant impact on an employee’s career, the individual
employee also plays a key role in career development (Renee Barnett & Bradley,
2007).

Career development is a collaborative effort where the leader can help
navigate the career development plan, but the employee must communicate the
direction for their career path to follow (Higgins & Kram, 2001). Employees who
are committed to career growth will be active participants in career development
planning and execution (Giannantonio & Hurley-Hanson, 2006). Motivated
employees actively seek opportunities for growth and understand that they must
align their goals to the organization’s needs (Renee Barnett & Bradley, 2007). This
includes learning new skills from other areas of the business outside their
immediate team, even if this is accomplished through a lateral move (Baruch,
2006). Employees who positively view career development as a continuous
learning process not only achieve career aspirations but also align with
organizational goals (Baruch, 2006).
Career development on a distributed team is not different than on other organizational teams; however, both the leader and follower must be fully committed to the process by recognizing the unique challenges a distributed environment can create (Fuller et al., 2006). Relationships between the leader and follower are mediated by AIT due to geographic dispersion, requiring a conscious effort to maintain consistent communication to monitor individual career development plans (Liukkunen & Markkula, 2012). Leaders and subordinates must stay proactive to identify growth opportunities (Renee Barnett & Bradley, 2007). The global economy has propelled the rise in AIT altering how leaders and followers interact; e-leadership binds traditional leadership theory and technology to establish a framework for organizational leadership and career development on distributed teams (Avolio et al., 2014).

**Conceptual Framework**

The conceptual framework, as proposed by Ravitch and Riggan (2016), guides the development of this research study. Further defined, the conceptual framework argues for the relevance of the study to the field and to position the research questions within the existing body of literature. Therefore, the conceptual framework not just encompasses the researcher’s passion, it frames the literature review that establishes the theoretical framework to extend their argument beyond the conclusions of previous research (Ravitch & Riggan, 2016). For this Qualitative study, e-leadership and the influence on leadership and career development was
used as the conceptual framework.

**Theoretical Framework**

Embedded within the conceptional framework are the theories that support the relationships within the literature review. These theories, in turn, construct the theoretical framework (Ravitch & Riggan, 2016). The key to understanding the phenomena being studied is often found within these theories (Maxwell, 2013). The theoretical framework thus is representative of a combination of formal theories. Whether the theories are borrowed from existing research or formed by the research being conducted, the theories illuminate aspects of the conceptual framework (Ravitch & Riggan, 2016).

The context that guided the framework for this study was that AIT influences both leaders and followers on distributed teams. In a technology-mediated environment, the foundational skills associated with leadership to motivate, develop, and lead teams toward common goals are more important than ever and at the same time even more complex to achieve (Pulley & Sessa, 2001). E-leadership has developed as a concept within emerging literature to provide a framework to explore leadership in an AIT mediated environment (Avolio & Kahai, 2002; Avolio et al., 2000; Gurr, 2004; Jameson, 2013). E-leadership, therefore, is not a new style of leadership. Instead, e-leadership enhances the effectiveness of traditional leadership, providing a framework to mediate leadership with AIT that benefits both leader and follower (Gurr, 2004).
Within the concept of e-leadership first coined by Avolio et al. (2000) is the argument that leadership and technology coevolve by permitting traditional leadership and AIT to be equally influential on distributed teams. Their study was guided by using a modified view of DeSanctis and Poole's (1994) Adaptive Structuration Theory (AST). AST proposed that leadership and AIT are organizational structures that influence and are influenced by human behavior (Gurr, 2014), further defining these structures as rules and resources that serve as templates for planning and accomplishing tasks (p. 120). This framework was used to identify the effects of technology as influenced by leadership, and also revealed leadership itself might be transformed as a result of interactions with the technology (Gurr, 2014). The e-leadership framework that emerged was not just an extension of traditional leadership but a fundamental change in how leaders and followers relate in a technology-mediated environment (Avolio & Dodge, 2003).

In traditional theories of leadership, the source of leadership is defined as the leader, and how it is transmitted and measured is based on the styles or behaviors of that leader (Avolio et al., 2014, p. 108). One of the most studied leadership theories found in traditional research and prominent within the e-leadership literature is transformational leadership (Hoch & Kozlowski, 2014). Transformational leadership aims to inspire and motivate (Judge & Piccolo, 2004) by increasing follower commitment, involvement, loyalty, and performance (Bass, 1999). Purvanova & Bono (2009) suggested transformational leadership has a
stronger effect in distributed teams with leaders who enhance their transformation leadership styles to increase positive influence on the team member. Applying additional leadership styles such as shared leadership can create stronger relationships, instill trust, and enforce commitment by facilitating informal leadership roles. (Conger & Pearce, 2003). Followers can contribute unique personal attributes, knowledge, skills, abilities, and cognitive styles through shared leadership (Hoch & Kozlowski, 2014). Emergent leaders are those team members who take on informal leadership roles without being asked (Pearce, Yoo, & Alavi, 2004). Emergent leadership encourages followers who have a strong desire to lead to take on these informal roles (Kahai et al., 2003). The weakening influences of leadership on distributed teams can be supplemented by alternative inputs using shared and emergent leadership (Hoch & Kozlowski, 2014). Figure 6 represents the framework used for this study. Scholars and practitioners recognize the potential impact of AIT (Avolio et al., 2014); thus, this study was conducted to understand the relationship between e-leadership and follower career development in geographically dispersed teams.
Synthesis

The sections within chapter 2 provided a review of applicable literature pertaining to organizational teams, advanced information technology, and organizational leadership. The qualitative nature of this study focused on interpreting the lived experience of participants to capture the meaning and interpret the meaning of the experience (Starks & Trinidad, 2007). According to Maxwell (2013), a conceptual framework is a system that the researcher constructs, and that guides the entirety of the research process. The development of this...
literature review entailed using the conceptual framework constructed and the theoretical framework from the literature review that guided the research. The literature review revealed that there is extensive research on leaders, teams, and team leadership. However, more research is needed to study the effects geographically dispersed teams have on the individual team member’s career development.

Organizational teams are the core building blocks of organizations (Kozlowski & Bell, 2013). Teams that are colocated are viewed to have more opportunities for face-to-face social interaction. The close proximity of team members during the early stages of team development affords opportunities to build relationship and trust. Each team member is also more visible to the leader, other team members, and the organization, which allows for long-term influence on shaping employee behavior (Kozlowski & Bell, 2003). The literature review on traditional teams was positioned to build the foundation of how an organizational team is structured and communicates.

Virtual teams were researched to understand what constitutes a team being designated as virtual. Bell and Kozlowski (2002) differentiated between virtual teams and traditional teams by virtue of the spatial distance between team members and the use of technology instead of face-to-face. This appeared to be the consensus through the literature, but that changed as technology became more standard within organizations. Traditional teams began to use technology even though there was no
spatial distance. Teams instead could be placed along a continuum that represents various levels of virtuality (Kirkman & Mathieu, 2005). Virtual teams became less about the distance, which separates them from other team members and the organization but more of a function of the team (Liao, 2017). Research on virtual teams did not account for permanently dispersed individuals.

The distributed team concept emerged from research on teams that are defined by geographic dispersion rather than just on the use of technology (Liukkunen & Markkula, 2012). Individuals on a distributed team must be comfortable with no face-to-face interaction with the team or team leader. Researchers did indicate that relationships on distributed teams take longer to form (Hinds & Mortensen, 2005), and there is a significant risk if uncertainty and ambiguity exist among team members (Nurmi, 2011). Literature about distributed team dynamics and individual perceptions is less bountiful than that on traditional teams.

The literature reviewed related to technology was focused on why organizations choose to use advanced information technology. Technology has bridged distance virtually and become the standard for communication when an organization must geographically disperse people and teams to establish localized customer support (Vomberg et al., 2015). Technology was adopted by most teams within organizations leading to teams being labeled as virtual, regardless of proximity. On distributed teams, technology can disassociate individuals from the
team leading to stress, demotivation, and low commitment (Cascio & Montealegre, 2016). Technology cannot change physical context; it can only mediate the absence of it. Technology and leadership influence each other reciprocally; leaders lead through technology, and leadership itself affects how technology is used (Avolio et al., 2014).

The leadership literature reviewed included transformational, shared, emergent, and e-leadership. Throughout the literature, the dominant theme is that a leader enables organizations to function effectively by guiding and inspiring the efforts of individuals and teams to achieve organizational goals (Carter et al., 2015). Teams are built on trust, and leaders who use transformational leadership instill trust and motivation to organizational teams through inspiration (Bass, 1999). Transformational leaders must embrace technology if they want to positively influence subordinates on distributed teams. The nature of distributed teams dictates that leaders cannot monitor subordinates through visual cues. They must rely on the performance and effectiveness of the individual. Leaders can provide growth opportunities by using shared leadership and emergent leadership to recognize motivated employees. Leaders must remember that e-leadership is meant to enhance the core attributes of leadership theory by providing a framework for leaders to use technology as a successful mediator (Gurr, 2004). Research on e-leadership has just begun to consider the issue of how technology and leadership complement each other.
Based on the literature reviewed, researchers have recognized that geographically dispersed teams are different from traditional teams, and more importantly, that geographically dispersed teams have disruptions and obstacles that affect people every day. The emergence of new leadership paradigms such as e-leadership is evidence there is a legitimate problem which needs research to address. The literature described studies reflecting that leadership must be tailored to the environment. However, very few studies addressed the individual and how being on a distributed team affects them personally or the impact on their career aspirations. Exploring the subordinate perception of career development on a distributed team provided insight into the effectiveness of leadership in globally distributed organizations.
Chapter 3. Methodology

Overview

Chapter three is intended to explain the research methodology that was used to collect the data and answer the research questions for this study. A qualitative research method with a phenomenological research design was used in this study focused on the significant influences of leadership activities that support or hinder career development based on perceptions and lived experiences of distributed team members. Qualitative research has been especially beneficial when studying new forms of leadership, such as e-leadership, where the emphasis is placed on the needs of the follower (Bryman, 2004). Phenomenology compliments qualitative research by opening a window into the lived experience of participants to gain insight into their perceptions with regard to the phenomenon in their environment (Moustakas, 1994). The lived experience, as explored through qualitative research, is an understanding of how individuals respond to and are shaped by the experiences they encounter in everyday life (Given, 2008). Phenomenology creates meaning of the embodied experience, contributing to a deeper understanding of the experience (Starks & Trinidad, 2007). According to Creswell (2014), a qualitative research study focuses on the people in their natural environment to interpret and bring meaning to their experience of the phenomenon.

This phenomenological study explored the phenomenon of how subordinates perceive opportunities for career development on distributed teams. A
review of the literature regarding organizational teams detailed how distributed teams are inherently more complex than traditional teams with a focus on the geographic and social challenges (Hinds & Kiesler, 2002). Leaders can guide subordinate career development by devoting time to encourage individual team members by promoting participation with empowering activities and roles (Judge, Simon, Hurst & Kelley, 2014). Leadership is charged with fostering trust, communication, and development for individuals while guiding the team to meet organizational goals and enhance team effectiveness (Morgeson, DeRue & Kareem, 2010). The overarching objective of this study was to provide further insight into what subordinates identify as significant influences of leadership activities that support or hinder career development on a distributed team.

**Worldview**

A qualitative study can be chosen once the researcher is familiar with the components of a research study, those being the philosophical worldview, research design, and research methods (Creswell, 2014). The worldview according to Creswell (2014) is a set of beliefs that guides action, thus for this study the philosophical worldview that best fit is social constructivism, which establishes the shared essence of a phenomenon through lived experience. The participants’ view of the experience is key to the research. Humans seek to understand the world around them and develop meaning to their individual experiences (Creswell, 2014). With this worldview, the experiences and the participants’ feelings are vital
contributors to this study. A deeper understanding of how subordinates on a distributed team perceive career development will allow the researcher to better appreciate the phenomena being experienced and how leaders of distributed teams can meet those expectations.

**Organization of the Remainder of this Chapter**

The proposed design of the study is described in twelve main sections composing this chapter. The first section presents the questions that guided this research. The second section of this chapter is the research design that introduces the methodological approach, phenomena, and the rationale for selecting the qualitative research methodology. The third section of this chapter provides the research approach that will be used in the study. The fourth section discusses the population and sample. The fifth section describes how participants were selected for this study. The sixth section discusses the instrumentation and includes the interview questions during the study. The seventh section covers the procedure used during the study. The eighth section details the approach used for data collection. The ninth section consists of an analysis of the data. The tenth section covers the ethical considerations for this study. The eleventh section will detail the researcher positionality. The twelfth and final section discusses the validity and trustworthiness of the study.
Questions that Guided the Research

This study explored the principal research question RQ1 and additional sub-questions RQ1a and RQ1b.

**RQ1.** What do subordinates perceive to be significant influences of leadership activities that support or hinder career development on distributed teams?

**RQ1a.** Are distributed team leaders effectively utilizing technology to mitigate the challenges resulting from the lack of face-to-face interaction?

**RQ1b.** Do distributed team members consider themselves being at a disadvantage compared to collocated team members on aspects of career development?

Research Design

Researchers choose a qualitative research method when the goal of the research problem is to examine, understand, and describe a phenomenon. A phenomenon in qualitative research is the concept being studied, which for the present study is the subordinate perceptions of leadership influence on career development (Silverman, 2015). The advantage of qualitative research is to allow for the studying of the human elements of a topic to examine how individuals see and experience the world (Given, 2008). Qualitative research is chosen when the
researcher’s intent is to conduct investigative research to understand the views and perceptions of the participants. The aim of qualitative research is to develop concepts that can help us understand social phenomena in natural settings, giving emphasis on the meanings, experiences, and views of the participants (Mays and Pope, 1995).

Numerous qualitative approaches are available (Table 2). This choice is guided by the purpose of the research, the role of the researcher, the data collected, method of data analysis, and how the results will be presented (Maxwell, 2013). There are five approaches that are commonly used to conduct qualitative research; narrative, phenomenology, grounded theory, ethnography, and case study (Creswell, 2014). Each approach has a specific focus and purpose; for example, a narrative study sets to explore the life of an individual and tell a chronological story, while the focus of grounded theory is to investigate a process and develop a theory or model. Consequently, the phenomenological approach was chosen as it attempts to understand and give meaning to the life experiences of the study participants related to a given phenomenon.
Table 2. Types of Qualitative Research Approaches and Their Characteristics. Adapted from Research Ready: Qualitative Research. Retrieved June 1, 2019 from cirt.gcu.edu. Copyright 2018 Grand Canyon University, Center for Innovation in Research and Teaching.

<table>
<thead>
<tr>
<th></th>
<th>Narrative</th>
<th>Phenomenology</th>
<th>Grounded Theory</th>
<th>Ethnography</th>
<th>Case Study</th>
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<tbody>
<tr>
<td><strong>Focus</strong></td>
<td>Explores the life of an individual; tells their story</td>
<td>Attempts to understand or explain life experiences or a phenomena</td>
<td>Investigates process, action or interaction with goal of developing a theory “grounded” in observations</td>
<td>Describes and interprets an ethnic, cultural, or social group</td>
<td>Examines episodic events in a definable framework; develops in-depth analysis single or multiple cases; generally explaining “how”</td>
</tr>
<tr>
<td><strong>Data Collection</strong></td>
<td>Interviews and documents</td>
<td>Primarily through interviews, sometimes observations</td>
<td>Interviews with 20-30 individuals to gather enough data</td>
<td>Interviews, observations, and immersion into the culture as an active participant</td>
<td>Documents of the case, archives, interviews, observations, physical artifacts</td>
</tr>
<tr>
<td><strong>Data Analysis</strong></td>
<td>Stories, review of historical content, development of themes</td>
<td>Study and describe experiences, examine meaning and context, look for themes, classify</td>
<td>Open, axial, and selective coding used to categorize the data and describe the implications of the categories</td>
<td>Describe and interpret findings by analyzing data and developing themes</td>
<td>Develop a detailed analysis; identify themes; make assertions</td>
</tr>
<tr>
<td><strong>Written Report</strong></td>
<td>Detailed picture of the person’s life; often a chronology or biography</td>
<td>Report of “essence” of the experience, description of the context of the experience or phenomena</td>
<td>Results in a theory, theoretical model, or figure that represents the phenomena</td>
<td>Description of the culture behavior of a group</td>
<td>In-depth study of a case that describes the case, its themes, and possible lessons learned</td>
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The design of the qualitative research method for this study comprised of a distributed team between six to eight members who are employed by an industry-
leading global aviation corporation that utilizes an extensive network of field support representatives (FSR) to provide product support for domestic and international customers at their operating sites across the world. Data was collected from each team member through scheduled phone interviews. Prior to conducting the interviews, a semi-structured, open-ended pilot study was conducted to ensure the questions are rational and logically lead to gain an understanding of the theme (Maxwell, 2013). This pilot study was used to validate the instrumentation used for this study. The purpose of this study was to uncover the individual perceptions of leadership activities that support or hinder career development on a distributed team where they must communicate almost always by Advanced Information Technology (AIT).

The qualitative method of this study used a phenomenological approach to understand how AIT influences both leaders and followers on distributed teams. The focus of this study was to conduct exploratory qualitative research to determine the experience and perceptions of distributed team members in relation to career development. The results were the lived experiences in the form of a transcendental phenomenological approach to describe the perceptions of career development on distributed teams. A transcendental phenomenological study is more focused on the experience of the participants and not the researcher (Creswell, 2014).
Overview of Research Approach Used in this Study

The purpose of phenomenological research is to seek the lived experience of individuals, to gain an understanding of their feelings, and to produce detailed descriptions of the phenomenon. An experience is the encounter between an individual and an event or occurrence. In phenomenological research, the meaning is not held in the experience itself, but instead in the lived experience of the individual (Schutz, 1967; Burch, 1990). Therefore, the lived experience emerges from explicit retrospection, where the meaning is recovered and reenacted through phenomenological interpretation and inscription (Burch, 1990). Phenomenology is a method of research to uncover distinct features and understand complex social phenomena (Moustakas, 1994). The limited research on distributed teams and specifically the perceptions of the individual team members regarding career development makes a qualitative design most appropriate, using a phenomenological approach. The phenomenological study provides the meaning and lived experiences for several individuals of a concept or phenomenon (Creswell, 2014). The transcendental approach followed for this phenomenological study centers the research on the experiences of the participants (Creswell, 2014; Moustakas, 1994).

Qualitative research with leadership and teams has been seen to be more personal than quantitative study’s since qualitative studies focus more on the phenomenon (Bryman, 2004). Qualitative research in leadership studies helps to
identify patterns, especially in emerging leadership concepts (Carter et al., 2015). Qualitative research seeks an in-depth understanding of “why” of social phenomena within the natural setting, relying on the direct experiences as meaning in everyday life (Klenke, Martin & Wallace, 2016). A qualitative study can uncover specific topics that lead to future research where e-leadership is studied to understand how leadership and technology are infused into a holistic approach to managing distributed teams. The nature of this study as qualitative and phenomenological relied on the experiences and feelings of the participants, along with the connection to the study of the researcher. The goal was to use this research method to bring meaning and value to the participants lived experience and uncover through the findings future research to explore.

**Population and Sample**

The participants for this study were selected from three distributed teams that are part of an extensive network of field support representatives (FSR) for an industry-leading global aviation corporation. These teams provide product support for domestic and international customers at their operating sites across the world. Due to the size and geographic dispersion of the programs supported, sub-teams are based on customer and geographic locations with leadership responsibilities shared across multiple team leaders. The company selected for this study is headquartered in the United States, and all participants will be US citizens supporting customers nationally at stateside locations and internationally in various countries. Limiting
the participants to a US company and to only US citizens is due to export control regulations in place on some of the supported contracts and customers impacting participant availability. Creswell stated (2014) that sample size should be limited to a few participants to facilitate collecting extensive detail about each individual studied. In a phenomenological study, Creswell (2014) recommends the range of participants should be three to ten individuals. Each participant was a distributed team member that does not interact with the team or team leader through face-to-face meetings and must rely on advanced information technology to facilitate daily communication. The pilot study was of similar size and also comprised of distributed team members.

**Selection of Participants**

This qualitative study relied on the researcher’s selection of a distributed team whose members are geographically dispersed from the organization, team, and team leader. This selection criterion was necessary to ensure that each team member conducts almost all communication between the team and the team leader through advanced information technology. Approval from the organization’s department head was obtained (See Appendix F). The specific teams chosen were not identified, and all participants remained confidential.

**Instrumentation**

Prior to conducting this study, the researcher gained approval from the
Institutional Review Board (IRB). The instrumentation for this study was in-depth, one-on-one scheduled phone interviews between the researcher and the participants (Creswell, 2014). Phone interviews allowed the researcher to gain access to all participants and provided a setting each participant was familiar with given their distributed environment. It was not known how comfortable each participant was with various forms of technology-mediated communication. Thus phone interviews provided a common medium for each participant. The interviews were conducted using a set of semi-structured, open-ended questions validated by the pilot study (Maxwell, 2013). Participants in this study signed a consent form and provided the form back to the researcher prior to the interview. To control bias and produce reliable data, interviews were recorded using a cellphone call recording application and also on a backup digital recording device. Each participant was asked on the recording if they agree to being recorded. Interviews were transcribed and analyzed using qualitative data analyses software such as NVivo Pro 12 or equivalent (Creswell, 2014).

**Procedures**

Prior to conducting the interviews, the researcher obtained IRB approval. A copy of the research summary was provided to each participant prior to the scheduled interview date and time. During the interview, the researcher supplemented the digital recordings by taking notes that were used during the analyses of the data. The interviews were conducted over the phone and were
scheduled for approximately 60-minutes. Prior to the interviews with the study participants, a pilot study was conducted with a similar distributed team within the same organization. The pilot study was used to validate the questions and the procedures addressed in the section. Upon the conclusion of the interviews, the recordings were transcribed and processed through the qualitative data analyses software NVivo Pro 12 to identify the themes (Creswell, 2014).

**Data Collection**

Data for this qualitative phenomenological study was collected from members of a distributed team that provide engineering and technical support to worldwide customers of an industry-leading global aviation corporation. Interview sessions were pre-scheduled and conducted over the phone using pre-screened, open-ended questions. The interview questions were semi-structured and open-ended to ensure consistency during each interview (Creswell, 2014). Interviews were conducted on a cellphone and recorded using a call recording application. The interviews were also recorded on a backup digital recording device. In addition, the researcher took hand-written notes during each interview to facilitate analytical thinking about the data (Maxwell, 2013). Interviews were transcribed and analyzed using the qualitative data analyses software NVivo Pro 12 (Creswell, 2014). The researcher took the necessary precautions to ensure all data collected was segregated and secured in a locked safe and destroyed upon completion of the study.
Data Analysis

The purpose of data analyses is to conceptualize the data from the participant interviews. This process will identify the main research themes linked to the purpose of the study and research questions, providing a voice to the lived experience (Creswell, 2014; Merriam, 2009). First cited by Moustakas (1994), the modified Stevick-Colaizzi-Keen method of data analysis was simplified by Creswell (2014) and included the following steps:

- Revisit and expand on the researcher experience with the phenomenon of the study. Labeled as epoche, and aids the researcher on setting aside bias and relation to the topic;
- Identify important statements made by participants about their experiences with the phenomenon using transcriptions and interview notes;
- Group important statements into research themes that can be combined based on overlap;
- Using textural description, describe what happened in relation to the phenomenon studied;
- Using structural description, describe how the phenomenon was experienced by the participants;
- Combine the textural and structural descriptions to create a narrative of the experience (Morris & Wester, 2018).
The researcher used phone interviews with semi-structured, open-ended questions that were recorded and later examined using the steps listed above.

**Ethical Considerations**

To protect the participants from any injury due to researcher actions, this study was submitted for review to the Institutional Review Board (IRB) at the Florida Institute of Technology. A copy of the approval of this study by the Institutional Review Board is in Appendix F. Each participant was informed of any possible risks and the potential benefits of this study. This research was expected to be a minimal risk on the IRB application. Participants received a consent form that was signed prior to participation and conducting the interviews for this study. The participants were not put in harm’s way or bodily danger. Finally, as stated in the IRB application, an executive summary of the results of this study was provided to all participants of this study. The data collected from this study was used to make general statements regarding the perceptions of subordinate career development on distributed teams.

Participants were informed that participation in this study is purely voluntary and can stop the interview at any time. The Participants identity remained confidential throughout and after the completion of this study. Privacy is of utmost concern to the researcher who ensured strict safeguarding of personal information was held. The data collected was secured at all times. The researcher expected each participant to answer each question truthfully and scheduled the phone interviews
at times convenient for them to ensure each participant is free from distractions. The researcher also reiterated to the participants that they should have their full and undivided attention. This is crucial to a qualitative study where the researcher aimed to gain insight into the lived experience of the participants. The researcher completed all applicable training for the certification in human subject protection through the Collaborative Institutional Training Initiative (CITI).

**Research Positionality**

The researcher for this qualitative study was once a distributed team member who was geographically dispersed, both within the Continental United States (CONUS) and Outside Continental United States (OCONUS) supporting foreign customers. As a distributed team member, the researcher experienced firsthand how the lack of face-to-face communication interfered with the creation of relationships and trust within the team and between the team leader. As the researcher traversed through the company by way of promotions, and being placed on different teams, distinct differences in how each team interacted were noticed. At times, the researcher was even subjected to frustration from established team members as a newcomer in a leadership position from another team. The researcher began to question why these individuals were not chosen for these roles, despite the extensive knowledge and obvious strong bond with the other team members. The researcher is now in a position where leadership actions can directly impact subordinates, teams, and the organization. The findings could not only help the
researcher understand the phenomenon being studied; the hope is that it can be used by other leaders of distributed teams. In order to understand any preconceived bias, values, and experiences, there was a need for the researcher to undertake reflexivity for this qualitative study.

_Epoche_

Researchers can use a method called epoche, also known as bracketing, to set aside biases when conducting phenomenological research (Creswell, 2014; Moustakas, 1994). The process involves the researcher outlining their own detailed description of the experience with the phenomenon in order to help prevent assumptions from interfering with the study. This proactive approach will allow the researcher to first consider personal opinions, so the research can be viewed as if it was the first time (Creswell, 2014).

**Validity and Trustworthiness**

Reflexivity is when the researcher engages in self-understanding about the biases, values, and experiences that can be injected into a qualitative research study (Creswell, 2014). The validity and trustworthiness of a study is found through the ability to replicate the findings (Merriam, 2009). The validity of a research study is when the results and conclusions are rational and support the research. Reliability for qualitative research lies with consistency, and qualitative research can have acceptable margins of variability provided the methodology consistently yields
results that are similar but may differ in richness and description (Carcary, 2009). The researcher for this study documented all processes and procedures. All interviews were conducted using the same techniques refined during the pilot study that ensured the trustworthiness of this qualitative study.

Phenomenological principles dictate that a study is trustworthy when the knowledge sought from the participants and told through their descriptions makes it possible to understand the meaning and essence of the experience (Moustakas, 1994). The nature of a qualitative study relies on the openness and sincere involvement of the participants. This was encouraged throughout the process. All participants were made aware that their participation is voluntary and confidential.

**Summary**

Chapter three introduced the research methods to be used in this qualitative study. The choice to use a phenomenological approach was provided. The focus of this study was to document the perceptions of distributed team members who are part of an industry-leading global aviation corporation providing products and support to worldwide customers. The interview questions facilitated the in-depth responses of the participants lived experience. Chapter four adds the data analysis, and Chapter five includes the conclusions, recommendations, and implications for practice, along with suggestions for future research.
Chapter 4. Findings

Overview

The purpose of this qualitative phenomenological study was to explore subordinate perceptions of leadership activities that support or hinder career development of members on a distributed team. The study explored the perceptions of seven team members on three different distributed teams working for a leading global aviation manufacturer as Field Support Representatives (FSR) geographically dispersed to support varying customers. This geographic dispersion required all team members to rely solely on advanced information technology (AIT) for everyday communication with others on their team and the wider organization. By using a qualitative research method with a phenomenological research design, this study was able to focus on the limited attention individual experience has in current literature. These experiences are deeply personal accounts and evoke raw emotion that otherwise would not necessarily surface if reduced to impersonal nonverbal questions analyzed and ranked by numbers.

This chapter is intended to identify and describe significant trends and key themes that relate to the current literature reviewed. The findings within this study will contribute to the extant literature on e-leadership by adding new and relevant research relating to individual career development. Chapter four details the data collection process and the techniques used to analyze the interview transcripts from
which the significant themes emerged. This chapter concludes with a synthesis and summary of the findings, as well as the contribution to the applied practice of practitioners seeking to improve processes related to deploying and leading distributed teams.

Data Collection

The seven participants for this study were members of a distributed team, those who are geographically dispersed and must use technology for communication and collaboration (Bell and Kozlowski, 2002; Jarvenpaa and Leidner, 1998; Majchrzak et al., 2000). An industry-leading global aviation corporation was chosen that utilizes an extensive network of field support representatives (FSR) to provide product support for domestic and international customers at their operating sites around the world. Participant selection within this community of FSR’s focused on locations where the individual was supporting the customer at that site as the only employee for the company on that team. This essentially ensured the employee had reduced contact in-person with others from their team or their company. All participants were the same grade within the company and shared common general job duty responsibilities as FSR’s, only varying for a customer or site-specific requirements for that program and product.

Participants were not limited on length of employment with the company or their specific geographic location. It was the intention of the researcher to select participants that were not at similar points in their career with the company. This
was to reflect the typical composition of a distributed team by recognizing that each team member is most likely at a different stage of career development. The intent was also to canvas the entire network to include international assignments, as this would provide a representation of the extent of geographic dispersion. The only stipulation was that the selected participants were US citizens. This was necessary due to export control regulations in place on some of the supported contracts and customers impacting participant availability.

The study was conducted in the participants natural work environment. Thus the collection method used was through cellphone interviews that were recorded using a call recording phone application and also on a backup digital recording device. Both sets of recordings provided clear audio and had no variations in quality, except for some background noise present on either end. Along with the audio recordings of each interview, the researcher supplemented the digital recordings by taking notes to be used during the analyses of the data. The interviews were then transcribed using the Wreally Studios Transcribe autotranscription service and exported into Microsoft Word to be reviewed for errors and finally formatted for analyses (Creswell, 2014). Each separate document, along with the researchers transcribed hand-written notes were then imported into NVivo Pro 12, a qualitative data analysis (QDA) software package distributed by QSR International (Creswell, 2014).

NVivo offers a word query search engine that was helpful to identify words
and phrases that were frequently used by each participant in their interview responses. The similarities in words and phrases used by participants when they addressed their perceptions about leadership influences on career development uncovered the emerging themes. The themes that emerged had to either address one of the two research sub-questions or relate to the overall principal research question. The following principal research question and sub-questions guided and provided the focus for this study:

**RQ1.** What do subordinates perceive to be significant influences of leadership activities that support or hinder career development on distributed teams?

**RQ1a.** Are distributed team leaders effectively utilizing technology to mitigate the challenges resulting from the lack of face-to-face interaction?

**RQ1b.** Do distributed team members consider themselves being at a disadvantage compared to collocated team members on aspects of career development?

*Pilot Study*

The data collection began with a pilot study that consisted of two distributed employees who met the participant requirements criteria. All instruments for the study were utilized to evaluate the entire process of the data collection effort. This began with contacting each individual to ask if they would
like to participate in this study. Once each individual agreed to participate, they were sent the required documentation to complete and sign.

The documents used to communicate between the researcher and participants consisted of an invitation to join the study (Appendix B), a confirmation letter (Appendix C), informed consent form (Appendix E), and a demographic form (Appendix D). Each of these was created in Microsoft Word with open text boxes that represented the blank spaces where the specific entries such as the interview call details, scheduling, and individual identifying information would be inserted. In addition, the demographic form used dropdown selections and check boxes to provide consistency of choices across the generalized response data. All were saved as fillable PDF forms with a digital signature block for the consent form and demographic form. This allowed for each participant to complete the required documentation digitally and send back to the researcher electronically, much as they would do in the typical work environment.

The pilot study interviews were conducted using the researcher’s cellphone to call the participant on the scheduled date at the predetermined time and number provided. This allowed for the participant to choose the time and location of their choice. By allowing the participant to make this decision, it put them in a position to control the setting, keeping them in their natural and most comfortable surroundings. By doing this, the goal was to put the participant at ease to enable open and honest communication.
Prior to beginning the interview, the researcher explained the purpose of the study and defined specific terms used in each section. The researcher also explained the consent form and reiterated specific points about confidentiality and the participant’s right to not answer any question they felt uncomfortable with. Interview questions 1-16 were derived from research question RQ1. Interview questions 17-21 were derived from research questions RQ1a. Interview questions 22-31 were derived from research question RQ1b. A total of 32 questions were asked during each interview, with the last question providing the participant an opportunity to expand upon or add anything that would be useful to aid those not familiar with distributed teams and the challenges each member faces.

The pilot study was an important step in the data collection process that gave the researcher the opportunity to check the phrasing of each question and work on delivery and timing between the researcher and participant during the interviews. Both the sequence of the questions and how they were interpreted by the participant was essential to ensure the responses addressed the intent of the overarching research questions. The feedback received from each participant during the pilot study was taken into consideration and implemented.

The consensus was that the interview questions allowed for reflection of their personal experiences and provided an avenue to discuss openly with someone outside their immediate team. It was also noted that the fact the researcher had firsthand experience, having been part of a distributed team, made them feel they
were being listened to and understood. This resulted in both pilot study participants going into length for most of the questions when answering, providing detailed and valuable insight into their perceptions and experiences. Due to this, however, both interviews did exceed the established 45-minute estimate for the interview. Adjustments were made to communicate that the interview would take approximately 1 hour, but could end earlier or go over the prescribed time. Future participants would be encouraged to take the time they need to answer each question how they want, with no pressure from the researcher to end or move on. Each participant during the pilot study felt the sequence of the questions flowed well, and they had no concerns over the phrasing of the questions and answered all questions asked.

The pilot study was beneficial to the researcher by exposing the environment in which the interviews would be conducted. The knowledge gained provided the confidence that the instrument being used was sound and would provide a successful and insightful interview session with each participant. The ability to practice timing and allow the participants ample time to respond also aided the researcher to use that time and practice good listening skills, a key aspect in formulating impromptu follow-up questions to expand upon. Armed with solid feedback and confidence that the interview instrument and associated material was in order, the researcher proceeded to send out the invitations for the research study interviews and start gathering data.
Research Participant Profiles

Participant 1

Participant 1 was a male who has been with the company for five years. He has supported the same program but served on different teams based on customer and geographic location. He has not been on a colocated team with this company. Through his employment with the company, he has had three different team leaders and has been assigned on two different teams. His current assignment has him supporting a customer who is Outside Continental United States (OCONUS). His team leader is not located within the same country.

Participant 2

Participant 2 is a male who has been with the company for fourteen years. He has been on four distributed teams supporting different programs and customers. He has not been on a colocated team with this company. Throughout this stretch, he has had four different team leaders. He has been on his current team for one year and has had two team leaders thus far. He is currently supporting a customer in the Continental United States (CONUS), and his team leader is located in the same country and time zone.

Participant 3

Participant 3 is a male who has been with the company for two years. This is his only distributed team supporting the same program and customer. He has not been on a colocated team with this company. He has had the same team leader
since joining the company. His current assignment has him supporting a customer who is Outside Continental United States (OCONUS). His team leader is not located within the same country.

**Participant 4**

Participant 4 is a male who has been with the company for one year. This is his only distributed team supporting the same program and customer. He has not been on a colocated team with this company. He has had two different team leaders since joining the company. His current assignment has him supporting a customer who is Outside Continental United States (OCONUS). His team leader is located within the Continental United States (CONUS).

**Participant 5**

Participant 5 is a male who has been with the company for two years. He has been on the same distributed team supporting the same program and customer. He has not been on a colocated team with this company. He has had one team leader. He supports a customer in the Continental United States (CONUS), and his team leader is located in the same country and time zone.

**Participant 6**

Participant 6 is a male who has been with the company for twelve years. He has been on two distributed teams supporting the same program based on customer and geographic location. He has not been on a colocated team with this company. Through his employment with the company, he has had three different team
leaders, two of them while assigned to his current location, where he has been assigned for the last three years. His current assignment has him supporting a customer who is Outside Continental United States (OCONUS). His team leader is not located within the same country.

**Participant 7**

Participant 7 is a male who has been with the company for eleven years. He has been on the same distributed team supporting the same program and customer. He has not been on a colocated team with this company. He has had one team leader. He supports a customer in the Continental United States (CONUS), and his team leader is located in the same country but in different time zone.

**Study Demographics**

Prior to conducting the interviews, each participant was sent a demographic form (see Appendix D) to complete and return. The demographics collected consisted of basic information (See Table 3) such as gender, marital status, education, years of employment, years in the current position and whether they received formal technology training with the company. The participants averaged 6.7 years with this company, Participant 2 being senior at fourteen years and Participant 4 with the company for just one year. Participant 1 has been in his current position for four years, while two participants (Participant 2 and Participant 4) at their current position for just one year. 43% of the participants (3 of 7) stated they had received formal training on the Advanced Information Technology (AIT)
used for daily communication. One of the more noticeable observations from the demographics was that all the participants were male, which in this particular career field is not unusual as discussed further.

Table 3. Demographic Data (Basic Information).

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Marital Status</th>
<th>Education</th>
<th>Years with employer</th>
<th>Years in current position</th>
<th>Formal technology training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>Male</td>
<td>Married</td>
<td>High School</td>
<td>5</td>
<td>4</td>
<td>No</td>
</tr>
<tr>
<td>Participant 2</td>
<td>Male</td>
<td>Married</td>
<td>High School</td>
<td>14</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Participant 3</td>
<td>Male</td>
<td>Married</td>
<td>Bachelors</td>
<td>2</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Participant 4</td>
<td>Male</td>
<td>Divorced</td>
<td>Associates</td>
<td>1</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Participant 5</td>
<td>Male</td>
<td>Married</td>
<td>High School</td>
<td>2</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>Participant 6</td>
<td>Male</td>
<td>Married</td>
<td>High School</td>
<td>12</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Participant 7</td>
<td>Male</td>
<td>Married</td>
<td>Associates</td>
<td>11</td>
<td>11</td>
<td>No</td>
</tr>
</tbody>
</table>

The fact that all participants were male is a direct reflection of the absence of diversity on the teams chosen for this study. Even though the company as a whole is well diversified, the reality is that this position has traditionally been male-dominated, due to the talent pool available that have the recommended background and experience. When gaining permission from the company to access the participants (See Appendix F), the Operations Manager who is involved in much of the hiring of new external candidates indicated that it is not from a lack of effort by the recruiting team. It is rare that a female candidate applies for these positions, but if they do, they are always given the same opportunity to compete and are not evaluated on gender. This aligns with research on the demographics of
non-pilot occupations in the aviation field. According to the FAA (FAA, 2019) for data collected in 2018 (see Table 4), of the 292,002 active aircraft mechanic certifications held, only 7,133 are women. This accounts for just 2.4% of the population that meet the job requirements and experience for a Field Support Representative within this field.

Table 4. Women That Hold FAA Certifications.

<table>
<thead>
<tr>
<th>All</th>
<th>Women</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>688,002</td>
<td>203,725</td>
<td>29.61%</td>
</tr>
<tr>
<td>292,002</td>
<td>7,133</td>
<td>2.44%</td>
</tr>
<tr>
<td>35,382</td>
<td>1,868</td>
<td>5.28%</td>
</tr>
<tr>
<td>6,430</td>
<td>631</td>
<td>9.81%</td>
</tr>
<tr>
<td>67,784</td>
<td>5,085</td>
<td>7.50%</td>
</tr>
<tr>
<td>21,465</td>
<td>4,086</td>
<td>19.04%</td>
</tr>
<tr>
<td>58</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>231,355</td>
<td>183,519</td>
<td>79.32%</td>
</tr>
<tr>
<td>33,526</td>
<td>1,403</td>
<td>4.18%</td>
</tr>
</tbody>
</table>

* Numbers represent all certificates on record. No medical examination required. Data for FAA certifications from FAA 2019

In addition to the general information about the participants, specific information was also collected about teams (see Table 5) including the number of teams each participant has been assigned to, the number of team leaders with the company and whether they are located outside the Continental United States (CONUS). The objective of the researcher was to identify participants who have had similar experiences on distributed teams but also are at different points in their
careers with the company. The participants averaged 3.6 years on their current teams, with Participant 7 having the longest assignment at eleven years while Participant 2 and Participant 4 the shortest at one year. 57% of the participants have only been on one team, while 43% indicated they have been on more than one distributed team, with Participant 2 being on four different teams. No participants have been on a colocated team with this employer. 57% have had more than one team leader with the company, Participant 2, leading the participants with four different leaders. Of those who have had a different leader on their current team, 29% stated they have. 43% of the participants are located within the Continental United States (CONUS), leaving 57% (4 of 7 participants) Outside Continental United States (OCONUS). All participants who are OCONUS do not have their team leader located in the same country as them. The demographic data reflects that the participants have varying experience with the company, but do have similar experiences when it comes to being on a distributed team.
Table 5. Demographic Data (Team Specific).

<table>
<thead>
<tr>
<th>Participant</th>
<th>Years on current team</th>
<th>Only team with employer</th>
<th>Other distributed teams</th>
<th>Other colocated teams</th>
<th>Different leaders with employer</th>
<th>Different leaders current team</th>
<th>Assigned CONUS</th>
<th>Leader in same country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>4</td>
<td>No</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Participant 2</td>
<td>1</td>
<td>No</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Participant 3</td>
<td>2</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Participant 4</td>
<td>1</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Participant 5</td>
<td>2</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Participant 6</td>
<td>3</td>
<td>No</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Participant 7</td>
<td>11</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3.6 57% 43% 0 57% 29% 43% 43%

Research Study Interviews

The researcher conducted in-depth, one-on-one scheduled phone interviews with seven study participants at an agreed upon date and time, with the participants choosing a setting most comfortable for them at their location. The researcher, who for this study was also the interviewer, primarily conducted the interviews from his home office. However, due to travel requirements, some interviews were conducted away from home, but always in a private location away from distractions and open areas. Each interview was scheduled for approximately 1 hour and left up to the participant to determine the overall length of the interview by the amount of detail they wanted to provide during their answers. Most interviews did, in fact, extend past an hour, but this was not a problem for the researcher or participant as they were fully invested in recalling their experiences to tell their individual story.
Before each interview, each participant was sent the Institutional Review Board (IRB) approved consent to interview form (See Appendix E), which they read and returned digitally signed. The interviews were conducted using the same interview protocol (See Appendix A) as in the pilot study.

The two pilot study participant responses are not included in the research study findings and were only used to validate the instruments and process used for the interview sessions. Three different distributed teams within the same company were used for this study. It was determined that to reach the broader team, including international team members assigned Outside Continental United States (OCONUS), phone interviews would facilitate access to all participants. Each participants’ unique situation regarding internet connection and individual comfort level with technology-mediated communication such as video was unknown. Thus phone interviews provided a common medium for the interview.

The interviews used a set of 32 semi-structured, open-ended questions validated by the pilot study (Maxwell, 2013). The responses from each participant were the influencing factor that determined the emergence of the significant themes, patterns, and relationships identified by this research study providing a voice to the lived experience of the individual (Creswell, 2014; Merriam, 2009). The significant themes, patterns, and relationships identified were supported by the majority of responses to the interview questions.
Interview Responses

Questions 1 through 16 supported answering research question 1.

The first three questions for the interview protocol are general questions about being part of a distributed team.

Interview question 1: What is it like for you being a member of a distributed team?

Common among all of the participants was the feeling of being alone, that due to their geographic location away from the organization, their team manager, and other team members they were on their own. Participant 2 stated that “you don’t have anybody looking over your shoulder per se, you don’t have anybody to check in with or check on you”. Participant 3 had a unique perspective in that he is located on an island, so with him being separated from the rest of the organization, he remarked that he is “literally and figuratively” on an island. From the aspect of performing their day-to-day jobs directly supporting and interacting with the customer, Participant 1, Participant 3, and Participant 7 talked about how they are the face of the company, and by being onsite with them, the customer knows exactly who to call for immediate assistance day or night. Participant 3 felt that this arrangement was good for the company because “it makes the customer definitely happier. I think they feel like they're getting more bang for their buck as it would be”. Participant 7 said that “I knew the airframe, I knew the customer, I knew everything but my own company which was interesting. So it was just kind of
backwards for me”. Participant 2 and Participant 6 believed it is just how business is done. According to Participant 2: “It becomes a natural way to do business on a day-to-day basis”. Participant 6 was more matter of fact in stating, “I really don’t know how to answer that because pretty much that’s what I’ve done through the past 12 years. So, in the corporate world, that’s pretty much what I know and understand”.

Participant 3: “It does pose some challenges due to the time change when I'm looking for guidance as far as engineering or even management guidance”. Participant 3 continued to describe the significance of the time difference, stating “Say I need an answer right away, sometimes I end up having to wait a full day to get any type of assistance or information”. Participant 4: “Timelines are the one thing that is a complication at times because I can be in my mid-afternoon and everybody else is done for the day”. The time differences and distance also can affect relationships, with Participant 7 comparing it to having a “long distance relationship”. Participant 7 went on to add that he has not seen his manager in 3 years. Participant 5 felt that any career growth is solely the responsibility of the individual to seek out opportunities to learn and grow on his own.

Participant 4 and Participant 7 did highlight that it becomes difficult to arrange a time for the whole team to come together. For Participant 4: “We frequently have teleconferences that involve the whole team, and the timeline can be difficult because you're trying to accommodate people globally”. Participant 7
mentioned it is difficult to arrange face-to-face team conferences, for team building and where people can network. According to Participant 7, even if the conference can be justified, there is always a cost and the logistics of bringing everyone back to a central location while leaving their customers without onsite support over that time period.

**Interview question 2: As an employee of a larger organization, does being on a distributed team make you feel disassociated from the organization?**

Participant 2, Participant 4, and Participant 7 believed that the information flow from corporate is sufficient. Participant 4: “There is enough information flow on a weekly basis from the main corporation on big picture things to where you don't feel as if you're not part of the company” adding “the corporation itself sends out an email distro to basically everybody”. For participant 4, he was glad that the information flow was happening even if it was to everybody and not directed at his smaller team specifically. Participant 7 said regarding the corporate flow down, “You can really feel disengaged if you don't make an active effort to reach out and grasp that stuff and absorb it”. Participant 1 felt disassociated with people at the corporate office but added: “You don't feel disassociated with your other fellow team members that are also in the same shoes as you”. Participant 1: “You can see more eye-to-eye with them and get along with them much better than an individual that works at a company headquarters”. Participant 3 and Participant 4 felt that bigger teams tend to get more attention. Participant 3: “So a lot of times I feel that
I'm not, you know, I'm part of the team, but I get that feeling of, I feel that dislocation a lot more heavily, I think than some of the other team members”.

Participant 4: “There are times because I'm part of one of the smallest groups that it seems as if at times the information that can come out of here, doesn't have the value that it would coming from the larger percentage of this group”.

Participant 5: “Unless you make a conscious effort to stay in touch with a group or an individual in particular then you're going to have that disassociation”.

Participant 6 talked about technology, and how since the information they receive is second hand, technology was supposed to at least increase the information flow. Participant 6: “Where you're in the environment at the home office, you can trade information and be part of the network”. Participant 6 continued to describe the difficulties with technology on a distributed team stating, “Mainly because of the inadequacies and security requirements of technology; it is time-consuming in order to get information or provide information”. Participant 6: “I just assume people back at the home office don't have the same similar challenges of connectivity”.

Interview question 3: Do you feel distributed teams face challenges unique to the organization?

All participants in their responses had a similar sentiment that colocated teams do not have to work around distance and time on a daily basis. Participant 1: “You have to rely on your IT to communicate to accomplish your job”. Participant
2: “When you're out of sight by yourself, it becomes a challenge. So you have to rely on either email or phone calls”. Participant 1 also added about IT support, “We have the lack of IT support or visibility as somebody in the home office because if they have a problem with their laptop, they can just bring it down to the IT shop and it gets taken care. But being away from home, you have to rely more so on your own abilities to get things done”. Participant 5 felt at the mercy of others when he has to wait on replies to emails or text messages, especially if he doesn’t know who is available. Participant 5 also added that he typically reaches out to five or six different people, since he does not know if a response will be in a couple of hours or a couple of days. Most of the time, the information he needs is time sensitive. Participant 7 commented, “Since we can only communicate through technology, if that goes down, then you’re essentially dead in the water”.

Participant 2: “When you're out of sight by yourself, it becomes a challenge. You have to rely on either email or phone calls, and hopefully, somebody will answer depending on how urgent the issue is, so it's definitely more of a challenge out by yourself”. Participant 7 gave an example where if you're just doing your job every day and you don't get calls, you can be forgotten about. Participant 7: “When there is a new person in a position unless someone sends out an email, you’ll never know”. Participant 6 felt that distributed teams have to work harder to accomplish the same tasks as colocated team members.

Participant 1: “Geographic distance can be a challenge because you're on
different time zones and you have to adjust your schedule”. When it comes to interacting with other team members, Participant 1 felt that interaction was good since they all have been in your shoes. Participant 3, however, felt there was not a sense of team membership, that you can feel lonely sometimes. “You don't have somebody you could just reach out to and say hey, what’s this, or how do I do that? Definitely that sense of isolation” added Participant 3. Participant 4: “I've found that it's easier for me to reach out to connections that are closer to my timeline than individuals that are closer in my group but further from the timeline, so I take the geographic separation of the group into account whenever I try to reach out to other individuals for information”.

When discussing relationships with the team leader, Participant 1 said that since the team leader does not spend time with each team member, it is harder to learn each individual’s personal characteristics and capabilities. Participant 1 added: “The manager because their team is geographically distant, they have to share their time with the rest of their subordinates”. Participant 3: “I've been out here two and a half years now, and again, there hasn't been a single management entity come out to visit”. Since his team leader has not visited his site, Participant 3 went on to say “I think it would be more difficult to recognize the challenges I have specific to this location, there are a lot of singular challenges to this location that I don't think he understands because he’s never been out here”. Participant 4 said about his team leader that it makes it harder to stay involved with him and if he
doesn’t volunteer information about him or the site, his team leader wouldn’t know what is going on.

Questions 4 through 7 pertain to organizational teams and how team members communicate.

*Interview question 4: Describe the structure of your current team.*

Participant 1 was able to provide the locations and names of his immediate team, however, when it came to the larger team, he was unsure of all the locations, stating he focuses more on the immediate team. Participant 2 was able to name all his team members and knew where each was located. Participant 3 said with confidence that he knew where all his immediate team members were located. For Participant 4, he was able to name some of his team members but thought there was another location that he could not remember. Participant 5, like the others, was able to list the customer site locations and the team members supporting those sites. Participant 6 gave a very detailed explanation of his team structure, going past his immediate team leader and included his team leader’s manager and the manager above them. Finally, Participant 7 was not sure he could name them all by memory but knew he could find out if needed.

Each participant was then asked if knowing the structure and location of other team members was important, to which Participant 1 responded, “Yes, it's a key thing. I actually have a clock; I have multiple clocks at my house and at work
with multiple time zones, so I know who's at work and when”. Participant 1 added, “So just trying to find the right times are one of the struggles, but we make it work”. Participant 2 stated that it is more difficult to contact team members located in another country, adding that there are fewer challenges to communicate when the team is all located within the Continental United States (CONUS). Participant 3: “As long as I know where the people that play a role in my position here are located and how to reach them”, adding it would definitely be beneficial, so he knew when to call. Participant 4 typically sticks to team members close to his time zone, saying it helps keep communication good. Participant 5 felt because of the amount of geographic dispersion that he should be able to reach a team member at one of the sites depending on the time of day. Participant 5 added that knowing the customer they support is important because some questions are customer related to processes, not just general technical questions. Participant 6 and Participant 7 both felt it was just important to know who is on your team and where they are located.

**Interview question 5: What do you find to be challenges that affect communication on distributed teams?**

All seven participants felt that the locations of the other team members, especially the international sites where they are on different time zones, was the biggest challenge that affects communication. Participant 5: “We have one individual on the team who is a 12-hour time difference, which puts it at a 13 hour time difference from the home office. So if he needs technical advice, he is 180
degrees off schedule from his own”.

Another challenge that was mentioned by almost all of the participants was connectivity at each site. Participant 1 stated that he supports his customer off-site from the primary location, and worries that the cell connection or internet connectivity might not be sufficient. Participant 3: “With our reliance on specific technology and when that technology is either out, or we have trouble connecting, it makes it really difficult to transmit data that might be necessary not just to me but to the rest of the team”. Participant 7 explained that no matter how much planning takes place, when you try to get everyone on the team together and share a presentation to discuss, you are bound to have someone not be able to connect or the connection is too slow to support.

Participant 7 described the comparison of talking to someone verbally as opposed to sending the same message over an email or text. The message according to Participant 7 “can be lost interpretation, the emotion of it, even though you spell it out, put it in parentheses and emphasize it, you can say a lot more with your words verbally”. Participant 7 added, “Your tone and inflection can say a lot, but things can get lost in translation in email and they certainly can in text”.

*Interview question 6: How often do you communicate with your team leader?*

Participant 1:

Less than once a month. It was planned to have a once-a-month
communication, but it slowly deteriorated. Before he was my team leader, we would communicate two to three times a week. Then he became my team leader, and it moved to twice a month and slowly deteriorated to less than once a month. Previous team leaders, it was once every three months and twice a year.

Participant 2: “Probably on average of two times a week, besides our weekly team call”. Participant 3: “Maybe twice a year, and that's during the performance review and then when he calls to talk about the raise percentage. Last year I talked to him, maybe three times one on one”. Participant 4: “I talk to him probably about twice a month over the phone, and on average, we communicate two to three times a week via email. It depends on what's going on as to whether or not the flow increases or decreases”. Participant 5: “We're going to say every 30 days”. Participant 6: “When he first came on, he wanted to do weekly or bi-weekly, but because of time zones and everything, I think I’ve talked to him about twice in the last year”. Participant 7 explained he communicates more with the FSR’s closest to him than he does with his manager, usually about twice a week.

During a follow-up question, the researcher asked each participant if they have met their team leader face-to-face. Participant 4: “Matter of fact, I have not met face-to-face with my supervisor at this point”. Participant 1 said he had not met his current team leader face-to-face, and added that with the ones he has met in the past, they had better relationships. Asked why he thinks that, Participant 1
responded “A good amount of communication is done through body language, facial expressions and like that. So when I'm always on the phone with them, I don't know how to read him”.

Participant 3 has not met his team leader face-to-face, but had a lot to say about what it means to him:

Well, there's a lot of things that I think you can learn when you meet and talk to someone face-to-face that aren’t conveyed over the phone. Attitude and emotions are one of those things. I think it is really important for a sub-located area like mine. I think the face-to-face type of meeting should have a little bit more value because again you call me. I can tell you everything's great. But then you come to my office and see the craziness that's going on around here. I think it weighs a little bit more value to the state of mind or state of being I guess, in a sense like that. Because again, you can only garner so much over the phone, especially when a phone call in most cases are limited to 10 or 15 minutes at the most, where face-to-face meetings could last hours, and you could really dig into situations that you wouldn't normally do over the phone.

Participant 4 has not met his team leader face-to-face, stating “I think that every individual regardless of where they're at should at least do what I would consider like a fly by with their supervisor to be able to sit down and talk with them”.

Participant 4 also added that after he was hired and travelled to the home office for
orientation and onboarding, his team leader was not present during his time there. Thus he has a better relationship with his team leader’s supervisor, who was present.

Participant 6 has met his team leader face-to-face; however, not while the team leader was a member of the company. Participant 6 went on to describe how his team leader worked with the customer that Participant 6 supported as an FSR earlier in his career. Participant 7 has met his team leader face-to-face, which was facilitated during an organizational level FSR conference, where select individuals were brought back to the home office.

**Interview question 7: How often do you communicate with other team members?**

Communication between the team members is on a routine schedule for all the participants, with each participant indicating that have either a daily or weekly call. Participant 2 and Participant 5 stated that these scheduled calls are primarily program driven. With Participant 4 and Participant 7 describing the calls as generally a technical call, but the only time that his team has the opportunity to hear everybody at one time. Participant 1: “We are always constantly in communication with each other via phone and email” and adding “The more you talk with someone, the more you have experiences with them and you just can share knowledge”. In order for Participant 3 to be part of these technical calls, he must adjust his schedule to call in at 2 AM. For Participant 3, it is nice to discuss
issues with the whole team at once, but he went on to say that he often reaches out at least once a week to other team members for technical assistance. When asked if he calls other team members for non-technical related topics, he said: “I don’t normally reach out to other people to just talk”.

For Participant 3, when he hired into the company and his current role, he initially only met a few of the other members on his team. With two of them no longer on the team, Participant 3 feels he doesn’t know anyone well enough for personal conversations. Participant 3: “There's no interpersonal relationship there. It's all professional. It's all business”. Participant 7 takes a different approach and tries to stay engaged by randomly calling other team members. It’s not that he needs anything; he just wants people to know he is still here.

Participant 6 mentioned his team has recently begun to have a non-technical call every other week. According to Participant 6, the call is scheduled around the majority of the teams’ typical work hours, which for those across international datelines like himself, makes calling in difficult. Participant 1 also has non-technical calls with his team, that for him allow a more free flow conversation to open up personalities. Participant 1: “Constant communication really helps to figure out and identify who is on the team”.

Participant 4 being new to the company was fortunate that during his orientation and onboarding at the home office, members of multiple teams supporting the larger program were there for a conference. Participant 4: “I got
business cards, I made contacts and had conversations with them; by the end, I felt if I had any problems or need information, I wouldn’t hesitate to contact them”. Participant 4 added, “There is a lot of value added to physically meeting people and making contacts”. Participant 5 and Participant 7 commented that face-to-face meetings add body language to the conversation that helps each person understand not just the conversation, but the individual as a person.

Questions 8 through 16 are related to leadership attributes and perceptions of leadership influences.

**Interview question 8: Describe the leadership attributes of your team leader?**

Participant 2 commented on his leader’s professionalism and tact, that he spoke to everyone equally with common courtesy. Participant 3, Participant 5, and Participant 7 felt their leader puts a lot of trust in them, and they, in turn, felt he was trustworthy. Participant 6, on the other hand, hesitated before revealing that he felt his team leader did not have any leadership attributes. Participant 6 did clarify by stating “that he did not mean it derogatory, and felt his team leader was a good guy”. It was the effect of not being prepared to be a leader and was still learning, but at this point provides no guidance and no career development advice according to Participant 6.

Participant 1 and Participant 3 each had similar reactions that there was a
lack of leadership present and had trouble identifying leadership attributes.

Participant 3 would like more personal attention, less hands-off, and more engaged on a personal level. During a feedback review, Participant 3 was told by his team leader that he doesn’t reach out to talk because he knows he can handle it on his own. Participant 3: “I don't know if that's just his leadership style, but for the most part, it doesn't bother me. But it does in the sense that there have been times where I've reached out to him via email, and I don't get a response at all”. Participant 1 did reflect for a minute, and even though he felt there were no identifiable leadership attributes now, it was not always the case.

This question was difficult for Participant 1 and Participant 6 because both already knew their respective team leader and had established friendships with them prior to their current roles. Participant 6 felt his leader was not prepared for the responsibilities of leading a distributed team. For Participant 1, when his leader first moved into the position, he was open-minded, listened, and cared. Participant 1: “He kind of helped you along the path; he empowered you to make the decisions on your own and guided you”. For Participant 1, this motivated him; he felt that when they communicated, it was sincere and that he was the focus.

According to Participant 4, he has seen examples of his team leader influencing him to achieve goals by encouraging him to think of new ways to accomplish a task or solve problems. Participant 5 likes how his team leader will pass along correspondence about upcoming products or new processes; for him,
this stimulates him to look outside what they see and know. Participant 7 believes his team leader could have more of an impact if they talked more, but time and distance have a direct effect. Participant 7: “Influence, motivation, stimulation. Those are all falling flat right now, to be honest with you”.

**Interview question 9: What attributes motivate you?**

Before asking the interview question, the researcher explained to each participant that a leader who motivates, stimulates, influences, and provides individualized considerations is defined as a transformational leader. Opposite of that, you have a transactional leader, someone who leads through reward and discipline to promote compliance.

Without hesitation, all participants perceived a transformational leader to be more effective, and those attributes were what motivated them professionally and personally. Participant 1 above all felt that if his team leader took a vested interest in him as a person, asked how his family was, and listened to his opinion, he would be highly motivated. What motivates Participant 1 is “free-form conversation between two individuals where you didn't feel that step above; that he was talking down at you, talking from his higher level”. Participant 3 thinks for a colocated team; a transactional leader might be effective because you see the person every day. Participant 4 looks for a leader to present a task and asks how we can accomplish the task without the pressure of consequences if not completed or done properly. Obtaining goals and seeing the end result, especially how it benefits the
customer is what motivates Participant 5. For Participant 5, a transformational leader instills motivation by staying involved and recognizing accomplishment. Participant 6: “I know for a fact that you have to make your people feel like they're your number one priority and number one priority all the time or else you start losing motivation and the incentives you put out there for them become less and less important”. Finally, Participant 7, who says he lacks the influence from a transformational leader, said it is as simple as picking up the phone and calling him without needing anything in return.

**Interview question 10: What attributes support career development?**

As with the attributes that motivated them, all of the participants said that a transformational leader would definitely support career development. Participant 2 stated that no matter what his development goals were, having the backing of his team leader and his influence to keep pursuing his goals keeps him motivated. Participant 6 looks for a team leader to devote the time needed for each individual, understand what they need, and be committed to them. Participant 3 commented that in his current role, career growth is limited, so to support career development, he believes a leader needs to stimulate the individual to find something new without changing jobs. Participant 1: “A Leader that lets you grow, a leader that pushes you to be stronger, you know… challenges you”. Participant 4 and Participant 5 simply stated a transformational leader could maintain a positive outlook and support career development.
Interview question 11: What attributes hinder career development?

Participant 2 wants to be motivated, and a lack of motivation would certainly hinder career development. Participant 1 had a strong feeling towards a leader who micromanages. A leader who tells you what you need to do tells you how to do it, and places unobtainable expectations is not a motivational leader according to Participant 1. Participant 7 explained how a disengaged leader hinders career development:

If you're not engaged, if you don't get that visibility, you're out of sight, out of mind and it's easy to do that in our environment. You can be hammering down working for your customer, working for your company, working for your family and just burning it at both ends. Six months later, it's like, oh hey what you been up to? Really, what have I been up to!

Participant 6 noted it didn’t matter the setting. If a leader doesn’t care about the people, then the career development for those under them will not be cultivated. Participant 4: “Transactional leadership has a more threatening dynamic”. A transformational leader, according to Participant 4, encourages and guides people through career development. Participant 5: “Transactional is a hindrance because you're just making sure that you just dot the I's and cross the T's, so you don't get in trouble”. Participant 3 described how just taking a new position and learning new things may gain him more knowledge, but he doesn’t feel as if has developed personally.
Interview question 12: Does the team leader assign different team members to lead projects and share informal leadership roles?

Prior to question 12, the researcher defined shared leadership as the distribution of leadership influence across multiple team members. Shared leadership on a distributed team promotes collaborative decision making and gives individual team members increased responsibility.

Participant 2, Participant 3, and Participant 4 all described what they called a collateral duty or additional duty, and they are assigned throughout the team. Participant 5 talked about special projects that other team members are assigned that give them overall responsibility and leadership over that project. The participants noted that on their teams, the team leader had assigned individuals as leads to be regional focal points. Participant 1 also has examples of shared leadership on his team, where team members are designated to be responsible for a certain aspect of the team or program. Participant 6 thought his team leader did but added: “Without knowing he does, probably since he is absent from a lot of the daily communication, we tend to answer questions for each other”.

Interview question 13: Does your team leader recognize and encourage those who volunteer for informal roles?

Prior to question 3, the researcher defined emergent leadership has those who rise among the group and are “elected” to the leadership position by initiating, scheduling, and integrating between team members.
Participant 1 said that his team leader would recognize and encourage in a group setting, but one-on-one his team leader would then outline exactly what he wanted him to do. Participant 3 explained that what he has seen so far is when there is a technical requirement, other team members will step up to create a smaller project team. Participant 3 couldn’t say for sure whether the team leader recognized or encouraged those actions. With the interaction he has had with his team leader, Participant 4 believes he can make the assumption that emergent leadership would be encouraged, but has not recognized an instance yet. Participant 5: “If an individual has a clear forward look on something, they would be able to go ahead and proceed with the understanding that they would have the support”. Participant 7 says emergent leadership is encouraged, “If you sound off and speak up to something and you're going to make that your pet project, then yeah all of a sudden you're the subject matter expert so watch out for what you say because you may end up in this position anyway”. Participant 2 was confident that his team leader recognizes and encourages emergent leaders to step up whenever a contribution to the team can be made.

*Interview question 14: Describe an informal leadership role you may have held?*

Participant 3: “Not directly assigned, we're tasked with doing the yellow belt projects and things like that, but as far as something that's team-wide, no, I haven't been assigned any”. Participant 2 said he has recently been assigned as a
lead for the team, although it doesn’t give him administrative authority, he is the official focal point for technical related questions. Participant 1 was assigned to lead a data gathering project; however, this came down from his program manager, not the team leader. Participant 5: “As far as my program, no, but I have with a parallel program”. These informal leadership roles don’t always come from the team leader or other management, as with Participant 6 who stated: “I am frequently called by other team members with questions, and that is because I am probably the most senior team member”. Participant 7 said his informal role came when he mentioned a deficiency in a program, so he was assigned to find a solution. Laughing, Participant 7 said he still “owns” that program years later. Participant 4 doesn’t currently have an informal leadership role but feels if the opportunity came, he would be considered for it.

_**Interview question 15: How do informal roles contribute to career development?**_

Participant 1 saw informal leadership roles very favorably, explaining: I think they can. I definitely think an informal role can help with career development because it gives you a chance to volunteer for something, gain exposure for it, and get name recognition. On a distributed team, name recognition starts meaning a lot more because you're not there to toot your own horn, your actions have to toot your own horn for you.

Participant 2 viewed informal roles as “a stepping stone to the next level. It gives
you fill-in responsibility, filling-in and speaking on behalf of the manager, whether it’s to a director over a conference call. It gives you the experience of doing what the managers do on a day-to-day basis”. Participant 3 believes that any time you take a proactive role in making things better not just for you but for the whole team, you can grow from the experience and contribute to their individual career development.

Participant 4 viewed informal leadership roles as a positive step because if you are willing to put yourself out there, other people in the organization notice you. Participant 4: “It shows your ability to gain knowledge and share it”. Participant 6: “I think they can help you develop as a leader; they help you better understand people and their unique talents”. If you can get recognition from an informal leadership role, then Participant 7 believes that is a positive outcome that can contribute to career development. Participant 5 commented that it is really up to the individual, you can make any situation a learning experience, and that in itself is career development.

*Interview question 16: Do you feel that your team leader listens and helps you achieve your goals?*

Participant 2, Participant 5, and Participant 7 all stated that their team leader listens and tries to help them. For Participant 5 and Participant 7, it is typically not from their team leader being aware of their individual progress, but instead, the participants informing their team leaders that they are falling short of meeting the
goal. Participant 4:

Honestly, right now it’s a little bit too early in my position to accurately answer that. We've had conversations to where he's told me he wants to give me more things to do, more visibility. I think that the career progression side of it, he wants to set me up to succeed.

Participant 1 felt, in the beginning, yes, his team leader absolutely listened and guided him. As their relationship began to diminish, so did the guidance and support according to Participant 1. Participant 6:

Not at all. He may listen when we actually talk, but I don’t think he is paying attention to the meaning, absorbing what is actually being said or asked. I’ve had many goals that I have asked for help to achieve, and none have moved past that stage.

Participant 3 thinks the lack of communication with his team leader has not facilitated these conversations. This has created a feeling of being left out for Participant 3, saying he really has no idea if he is doing well or not. Participant 3:

“I don’t think he understands the stress that we are under being sub-located”.

Questions 17 through 21 supported answering research question 1a, focused on technology applications.
Interview question 17: What form of technology do you prefer to use for distance communication?

For the participants, having a phone conversation allowed them to connect to the other individual. Participant 4 stating that on the phone, you can have a real conversation instead of just asking a question. Participant 5 felt that calling someone or even using Facetime offered him “instant gratification, an instant reward for the problem”. Having a conversation with someone was also important for Participant 7, saying “It was less likely to be lost in interpretation”.

Making a phone call was not always possible, with Participant 1 noting that time differences keep much of the team on opposite schedules. For Participant 3, it is usually email simply because he can use it anywhere at any time from his laptop or his phone. Participant 5 did add that email has its advantages as a written form of communication, in that the conversation is always there to revisit when needed.

Participant 1 and Participant 2 both preferred email, noting there could be a benefit from video conferencing. Video conferencing was also something Participant 3 expanded on, believing it would benefit him during the performance review with his team leader by making it more personal. Participant 3: “You're actually looking at someone, you know, you're having a genuine somewhat face-to-face conversation”. When asked how often Participant 4 has used video, he stated, “Video doesn't really happen that often. I don't initiate any video just because I'm not comfortable with it”.
Interview question 18: Do you believe technology such as live video can replace face-to-face interaction?

When asked if video conferencing can replace physical face-to-face communication, each participant stated that video conferencing could definitely help build better relationships across distance, but it cannot replace a physical meeting with someone. Nonverbal communication such as body language that you can observe is an element that video conferencing cannot replace according to Participant 1, Participant 5, and Participant 6. Participant 5: “There's a lot to learn about what's being said by an individual from his body motion and physical actions”.

Participant 6: “Electronic media is purposefully driven, whereas meeting face-to-face, you have a chance to get into casual conversations”. Participant 7 feels that video conferencing definitely has its place as an important part of communication for a distributed team. For Participant 7, his biggest fear is losing the ability to read body language and gauge whether the other party is being truthful. Participant 2 agrees that video conferencing is a great alternative if distance and time precludes a physical meeting, but stood firm when stating “I don't think there's anything better than sitting down and talking with somebody right across from the table for me”.

Participant 4 talked about the time you can devote to the individual when you meet physically face-to-face. It’s easier to allow distractions or other thoughts
to interrupt a video meeting, unlike when you’re sitting with someone, you are
giving them more personalized attention noted Participant 4. Participant 4 went on
to say, “That's why I'm a big believer in face-to-face meetings and face-to-face
communication when possible”. For Participant 1 and Participant 3, video, without
a doubt, extends communication on a distributed team, but it doesn’t replace the
interpersonal relationship building, you can only get from a face-to-face meeting.

**Interview question 19: Do you think your team leader uses technology to its fullest?**

The participants felt since email or phone was predominantly the primary
means of communication, that their respective team leaders could do a better job of
using the technology made available by the company. Even given their views about
video conferencing as a replacement for face-to-face meetings, the participants felt
it was the next best alternative. Participant 3 and Participant 5 would definitely like
to see more opportunities for video both in a team setting and individually.
Participant 1 talked about Facetime or even text messages for quick check-ins.
Participant 4: “Yes. So when they use WebEx, email and telephone conversation,
he definitely does because we've had cases where you have video and audio, and it
gives you the ability to share the information a lot better”. When asked why his
team leader doesn’t use more technology, Participant 1 and 7 commented that the
older team leaders may not be as comfortable using the technology or might not
even know how. Participant 3 referenced the company training program by stating,
“You get zero training on any of that stuff, you get handed a computer, and they're like, here you go”. Finally, Participant 7 took it beyond his team leader by saying “We want to say we're a technology company and have the latest and greatest to be innovative, but we're at the dull end of the sword, to be honest with you”.

**Interview question 20: Describe the pros and cons of using technology to communicate.**

The pros according to Participant 1 and Participant 3 were about how with technology, you can communicate the same information and the same delivery to a wider audience, making communication a lot easier on a distributed team. Participant 3 also added that technology “does allow a little bit of leeway with the time difference and the difference in location. Technology helps bridge that a little bit”. The ability to contact anybody globally is a real benefit of today’s technology, according to Participant 4. For Participant 5, the pros of technology is the ability to have live video, where he can show someone on the other end the problem instead of taking a static picture and trying to describe it. Participant 6 thinks the technology that is made available is adequate.

When it came to the cons, many of the participants worried that a reliance on technology hampers their ability to communicate when the technology goes down. Participant 4: “Unlike at the home office, if my computer goes down, if something happens to my computer, I'm done as far as sending emails and files are concerned”. Participant 7 also commented that if any of the systems they rely on go
down, there is nothing they can do but wait. For Participant 2, he felt that technology could become a con because it can be used as a reason not to bring people together. Participant 1 felt that “individual relationships do suffer; some people just can't take being away for so long”. Participant 4: “The only thing that I see on a negative side to technology is that you lose personality from it, you lose that that human contact”.

**Interview question 21: What would you change about the technology used and how distributed teams use it?**

Participant 1 and Participant 3 would like to see the company invest more in technology, making sure that they always have the most updated and relevant hardware and software. Participant 7 noted that even when the company does a refresh of technology, not everyone is upgraded at the same time. Participant 7 added, “Making sure we have standardization of the most current and relevant products would help distributed teams”. All the participants felt that since they relied on technology to conduct all of their inter-team and inter-company communication, they should have the most relevant technology available on the market.

One of the other common comments from the participants was about IT support and training. Participant 6: “I would like to see better IT support that would prioritize remote user issues, faster responses to problems, and training for new technology”. Participant 4 and Participant 7 wanted more training on new products
to make sure that all the features were known by the entire team and that they were working at each location. The IT department needs to be aware of the off-site environment and tailor support to the nuances of each site.

Questions 22 through 31 supported answering research question 1b, focused on career development and advancement opportunities.

**Interview question 22: What are your career aspirations?**

When asked about their current career aspirations, each participant had a different set of goals for what they would like to achieve. Participant 2 was not actively pursuing any career advancement, his desire to move up fading to the back as he comes closer to retirement. In the case of Participant 3, he was in a unique situation where any career advancement that would require him to move would cause a major disruption for his family. Participant 3: “I'm in the position where I need to be at right now, so I really have no aspirations to lead”. Participant 4 has aspirations for career progression but has not started to create a development plan yet with the team leader. Stating that this is his second career, Participant 4 looks for incremental steps that won’t take him too far from what he is doing now. This is similar to Participant 5, where he is content supporting his current customer and location, developing his skills for future opportunities.

Participant 1 has strong career aspirations to develop and move up within the company. What Participant 4 is having the most difficulty with is knowing what
is available for him through the wider organization. Participant 1: “I just think it takes more guidance from leadership to show the options available”. Participant 6 has had career aspirations for some time now but has found it difficult to achieve them. Stating that he has been close several times to being selected for advancement, Participant 6 solicited feedback and a path forward to develop but has yet to see those opportunities come to fruition. In a similar fashion, Participant 7 has also tried on different occasions to move locations hoping to find advancement opportunities. With no changes to his role over the years, Participant 7 has settled into what he has done throughout the years with the company, content to “close the doors behind him” when the time comes.

*Interview question 23: What are the most important factors in your career development?*

When it comes to career development, Participant 2 felt it was important that someone in a leadership position “Take you under their wing and kind of show you the ropes”. Participant 7 also looked for leadership guidance and added that it was also important for the leader to help the individual gain exposure to the wider organization. For Participant 1, at the end of the day, he wants to take the lessons and guidance he has received and be a positive influence himself to make a difference. Participant 5 wants positive influence from his leader by showing he has trust in his decisions.

Education was another important factor for career development, according
to Participant 2, Participant 4, and Participant 6. All three added that it was not only academic education but education about their job and the company, gaining personal experience from what they encounter day to day. Participant 7: “Doing your job in your current capacity as well as a willingness and eagerness to take on different responsibilities and different roles”. Participant 3 feels that when you have a strong relationship with your team leader, that will stimulate personal dedication to keep learning and strive to go above and beyond with the knowledge gained.

**Interview question 24: Have you proactively engaged your team leader by scheduling one-on-one time to talk about your career?**

At different time throughout their respective careers, each participant has reached out to their team leader for career advice. Not all had successful experiences, as with Participant 7 who said that after trying earlier in his career and not receiving what he needed; he would just concentrate on doing his job well and let his career take its own course. When Participant 1 has had conversations with his team leader, he felt that the team leader was not listening to what was being asked for. Participant 1 added, “He wasn't pushing me closer to the larger organization; he was pushing me farther away”. In the scenario from Participant 6, when he did reach out to his team leader, he felt as if his team leader didn’t have the time for him.

Participant 5 had positive remarks for his team leader, stating that he is confident that when he discusses career development, his team leader will help him
find opportunities. Both Participant 2 and Participant 3 have had positive career
development discussions with their team leaders. Participant 4: “I am going to
reach out to my supervisor to see where I'm at and what I need to do to move
forward and progress to where I want to be”.

**Interview question 25: What is your team’s leader’s role in terms of your
career development?**

As the two more recent new hires, Participant 3 and Participant 4 felt that
their team leaders were in direct control of their career development. Participant 3:
“Anything that I want to do outside of my current role, he has control to help or
hinder me going anywhere from here”. Participant 7 said a team leader should
make sure each individual knows what their options are and give guidance for them
to develop and become competitive for that new role. Participant 2 commented that
his team leader should not just guide his development but also prepare him to
communicate his skills when applying for new positions.

Team leaders also need to evaluate each individual separately and look at
each person’s experience and education to steer them in the right direction,
according to Participant 6. Participant 5 looks for the team leader to provide “A
gentle nudge to keep an individual from becoming complacent in their position and
growing stagnant”. Simply put, Participant 1 said, “They need to literally sit down
and listen to figure out and get to know who the individual is”.
Interview question 26: Do you feel you are given the same considerations for career development as other team members?

The majority of the participants felt that they were given the same considerations as other distributed team members, although since they are all geographically separated, it is hard to see if others have more or less one-on-one communication. Participant 7 stating, “I would like to think that, but that is just my perception”. Participant 2 and Participant 3 both commented that all they know is what they can see, but yes, they feel equal to other team members for career development. From his perspective, Participant 4 does not feel anyone would hinder his career development at this point”. Participant 5 stated that if you know each team member, their strengths and weaknesses, then a team leader should be able to find opportunities for everyone.

Not all the participants felt they were though, with Participant 1 stating that he often times feels that his team leader forgets about him. Participant 1 stated he would like more recognition. When asked to clarify, Participant 1 added he didn’t believe that his team leader recognized the different challenges international sites have compared to stateside location. Participant 1: “They're not being forced to pick up their whole life and then start it again, which also kind of slows down your work life at the same time because when you're focusing on situating a family, setting up a household, you're not a hundred percent focused at work”. Participant 6: “I think a lot of people feel that our management over promises and
underperforms”.

**Interview question 27: Do individuals on colocated teams have more opportunities for career development and advancement?**

All participants, when asked if colocated team members have more opportunities for career development, responded with a unanimous yes. Participant 3 felt that on a colocated team, you have face-to-face interaction where you can build a more personal relationship. When it comes to being noticed, Participant 1 said that when other people can see you, then those people can stand out in a crowd and show what they are capable of. Participant 6: “I may make a call to somebody that's in my time zone to see if they've ever done anything or had knowledge of that, but there's not the coaching and guidance that there is at the home office”.

Participant 5: “I'd like to say no, but having a direct relationship with management, you're going to indirectly gain insight or skills that you wouldn’t normally get in a direct fashion because of being colocated with them”. According to Participant 4, “When you have a personal connection with people that know you and know the type of person you are, that could give you an advantage because they know what they're getting”. Participant 2 commented that when it comes to interviews, being colocated gives the opportunity to conduct a face-to-face interview and could be an advantage over a phone interview. Participant 7 mentioned the human factor, meaning that just going out to lunch and having a casual conversation can open many more opportunities.
Interview question 28: Are you satisfied with your current position and progress with your career development?

The participants all had mixed feelings when asked about the current state of their career development and satisfaction in their current position. When it came to their current positions, the participants were happy with their locations, notably because as Participant 3 stated, he joined the company because of the opportunity to be based at his location. This was a common sentiment with Participant 2 providing insight that to become an FSR, you seek out the position that interests you and the location you want to be at. Some sites have no time limit, while others for various reasons force the FSR to find another position on the team, another team, or with the company in another capacity.

However, when it came to career development, for the participants, it was a different story. Taking a minute to find the right words, Participant 7 settled on simply saying “Stagnant, capped out”. Participant 7 added that his career development had been a slow evolution, but he doesn’t think he has developed beyond his current level. For Participant 5, it has been an up and down year, with him saying his career development is moving in the right direction, but that he has had to endure many roadblocks along the way. Participant 5 felt there could have been more interaction and guidance in the beginning. Participant 6 had a similar experience stating, “I’ve tried to advance, but I have very little guidance and help from my leadership”. Participant 1 referenced climbing the corporate ladder, only
to say he couldn’t find it. The frustration for Participant 1 came out when he commented: “No, it's not on track, and I don't know if I'm satisfied with my current position because I don't know what's available for me”.

*Interview question 29: Do you consider a lateral move to another team (distributed or colocated) as career development?*

Participant 3 felt that a lateral move benefiting career development was very situational, going on to say that if he were to consider a lateral move, it would have to be on a program and product he has no experience with. “It would have to expand my technical knowledge beyond what I currently know” added Participant 3. Participant 4: “I think it would be career development and career progression because it expands the knowledge base that you have of the company as a whole by knowing more of what they're involved in”. For individual career development, Participant 5 looked for opportunities that would make him a better-rounded individual. Participant 5: “You never train to be one individual, you're trying to become yourself, your own individual, your own leader, and the only way to do that is to become well-rounded”. Moving to a different program and expanding your breadth of knowledge without stagnating in one position is definitely career development to Participant 7.

Participant 1 and Participant 6 did not discount lateral moves as career development, but neither was sure how much value a lateral move really provides. With Participant 1, he has been told that a lateral move will give the individual
breadth of knowledge and experience, but he questions how far that will take you. If you move across too many programs, Participant 1 added: “Just because I'm familiar with something doesn't mean I'm ready to be the expert on something”. Participant 6 does believe a lateral move is good for the individual, but the location is a determining factor at this juncture in life. Even though participant 2 indicated he was at the tail end of his career, he said if it was the right opportunity, he would consider it just to keep gaining experience.

**Interview question 30: Does your team leader or someone outside your team formally mentor you?**

All the participants stated that none of their team leaders mentor them formally, but some participants do have informal mentors within the organization. Participant 4: “As far as being mentored by him, there hasn't been a whole lot of conversations at this point”. Earlier in his career, Participant 7 described “I've had some informal ones along the way and tried to capture their knowledge and their different vantage point”. Another informal mentoring opportunity was described by Participant 1, saying, “My program manager has definitely mentored me, he has brought new positions to my eyes and shown me where I could go”.

Participant 5 would like a mentor that can help identify his strengths and weakness are and guide him to create value to grow professionally and personally. Participant 6 looks for a mentor that will listen to what the individual wants and not try to develop them into someone they are not aspiring to me. For Participant 3, “a
mentor is someone that is there for you when you need them, and just keeps track of how you’re doing”.

**Interview question 31: Are you currently pursuing another position?**

Not all participants were currently looking for new positions, and the reasons varied. Whether it was being at the tail end of his career as with Participant 2, or contractual obligations specific to his current location as with Participant 4, that doesn’t mean there is not an interest if and when the time is right. Participant 4 added: “I have started networking, put out my feelers to a few individuals to let them know that when my time of availability is here, I am seeking other lateral positions”. Participant 1 is always looking for something different, wondering what the next step could be. While Participant 6 indicated that he has a specific location in mind and is waiting for it to become available.

For those not looking for another position, Participant 3 noted that he is at the location he desires, and his desire is to continue developing without moving. Participant 5 still feels he has more opportunity for growth in his current position but feels that the time to change positions will come. Participant 7 wanted to explore other positions earlier in his career, but that desire has gone because of the extended time at his location. According to Participant 7, “my family life is too embedded at this location. It wouldn’t be fair to move them now”.

Question 32 provided the participant with an opportunity to speak freely
outside of the interview script.

_**Interview question 32: Is there anything else you want to add or expand upon that would be useful to aid those not familiar with distributed teams and the challenges each member faces?**_

Participant 1:

I think a distributed team has huge merits. If you have the right individuals in the right positions, it can be priceless. But it's all about having the right individuals, in the right places, with right leaders pushing them. If you don't have someone that's willing to put in the work when no one's looking, and you need to have a manager watch over them, then the people that are doing what's right when no one's looking are going to get ignored. I think a lot of the times, though when they are on these distributed teams on a government contract, the focus is not necessarily on the right person. It's more like we need a person, and then the manager just deals with it. So the people that don't need to be constantly supervised are lost.

Participant 2:

No, I really don't have anything to add, to be honest with you. You know, I've been with the company for going on 15 years here at the end of this year. So I'm kind of used to being on my own and taking care of business and being responsible. So I think for the new people there would be things that I would want to talk to them about when they first come into the FSR
community. The dos and don’ts and the things that would help them.

Participant 3:

Yes, so I brought this up in our journey meeting, and I'll just mention it. One of the challenges that I have here as of late is the customer continues to ask when somebody from my leadership is going to come out here and do a face-to-face with them. They put pressure on me to put pressure on leadership saying hey, you know, when are we going to see somebody from management? We see you all day, but when is somebody from your management going to come out and ask us what they can do for us. Because they don't feel like they're getting any face time. The issue is that ---- ----- send VP’s out here every six months to sit down with the leadership and ask, what can we do to make things easier for you guys? So when that happens, naturally they come out and say hey we've never seen a -------- manager out here, when’s that going to happen? And I say I've never seen a ----- manager out here. Not even from the mid-level manager. I think the upper tier needs to be more involved when it comes to sub-located sites because it shows a lot more company involvement. If management comes out or a VP or the likes come out and say’s hey, I'm here to see our FSR, but what can I do for you guys? I think that it plays into the idea that management actually cares about this site.

Participant 4:
No, I think that all the questions that you asked pretty much hit the positives and negatives, the vulnerabilities to all of it. So I don't think that I have anything else that I could add that would be a benefit.

Participant 5:

The biggest thing is to know who you are as an individual. What type of learning it takes to get you to progress forward and to understand what type of leadership that you have available for you. If you are a, for lack of better terms, a complacency style learner or your where the feeling of accomplishment is easily obtained by you and the next goal is not readily apparent, you may find yourself struggling. Learn what you have to branch out and make yourself feel uncomfortable. You're going to have to expand your horizons, going to have to expand your thought line because your boss is not going to be there to push you on a daily when he sees you just kind of becoming a complacency driven individual. Don't be afraid to push yourself out, you may have struggles, but there are team members that should be willing to help you. Whether they are 3 hours or 30 hours away, they may be there for your assistance. We just have to find a way to reach out to them. Technology makes it a little easier. Whether it's FaceTime or you know a different version of that, whatever it might be. You're going to have to continue to strive so that you don't fall into your own little walls.

Participant 6:
 Basically, more than anything is a distributed team needs dedicated leadership. And I don’t mean as in somebody dedicated to doing the job because I feel that truly if you ask leaders that we have, every one of them would tell you that they’re dedicated in doing this job. The problem is that's not their primary job. And as it, more so than the team at the main office, a distributed team has to have a dedicated leader because of the uniqueness of each and every member of the team's position. The things I have to deal with here in ---- with the ---- customer is completely different than what ---- has to deal with up in ---- dealing with the ---- customer, which is a whole different world away from what ---- is dealing with in ----, and what ---- is dealing with in ----. If you were to put together a survey, a graph or anything, everybody and their team would be considered an outlier, because everybody’s situation is so unique and so different. And I know people at the home office say yeah, yeah, yeah…you all are just representing the same product to different customers. But it's a whole different world. You know, from dealing with ----, it's a whole different world dealing with the -- -- than it was going to ---- with ---- and dealing with them. We’re all dealing with fruit. It’s not just apples and oranges. It’s pears and grapes and tomatoes.

Participant 7:

I just like to place emphasis on the impact of the human factor. It just
counts for so much. It truly is an intense. So it's like yeah I know ----, I've worked with him forever. He was on my team, and now he's there, but you know if I can take time, I'm going to come down for a site visit and check out. That's totally different level of communication whether it’s formal or informal and that's something that's just hard to express to people that are sitting in a room or sitting in the same city or even the same building. Even if they're across town, they have the opportunity to do that, and we do it once every six months. It depends on our budget; it’s once a year, and then sometimes it stands out further than that, you know far and wide, so when is the last time. So that's what I'd like to emphasize, it's so hard to quantify that, and you can't put a value on just the day-to-day interaction that these people do get and I know they roll their eyes and how they get their belly full and go. No, I see him every day. I'm done, you know, but if you're you know, truly if your life or career depended on it to some extent, then it changes your whole perception of it I guess.

Data Analyses

The participants were interviewed using a questionnaire consisting of 32 semi-structured, open-ended questions. The sample population of distributed team members had the intended range of time with the company and geographic dispersion. Each participant had personal perspectives based on individual experiences as distributed team members. The participants were able to
communicate their personal perspectives in a way that reflected how each is personally affected; this provided honest and open dialogue.

The interviews were individually transcribed from each digital recording using the Wreally Studios Transcribe auto-transcription service (Creswell, 2014). Each file was securely uploaded through the researcher’s private account and once transcribed, available to review or download as a raw text file. This service provided highly accurate speech to text dictation that recognized track marks used between interview questions. Track marks are a function of the digital recorder that enabled the researcher to quickly find digital markings or positions in the recording. The service also incorporated the ability to identify the speakers by labeling the researcher and participant. These added features proved to be invaluable during the review of the completed transcripts. Due to the background noise present at times and unavoidable call quality issues from the cellular service, all transcripts were read and listened to simultaneously to correct errors.

Although the speech to text dictation was fairly accurate, it was not perfect and warranted additional review by the researcher. This did take additional time above what was originally planned. However, a positive outcome was that the researcher was able to become more immersed with each of the participant responses by listening and feeling once again their individual experiences and emotion. Once the transcripts were reviewed for accuracy, any identifying names of the company, individuals or locations were redacted. The documents were then
formatted in Microsoft Word, and along with the accompanying transcribed, hand-written researcher notes were imported into NVivo Pro 12, a qualitative data analysis (QDA) software package distributed by QSR International (Creswell, 2014).

NVivo Pro 12 uses a robust analyses engine that facilitates the researcher when coding and identifying themes within the data collected. NVivo 12 provides the researcher with a central repository to store, organize, and retrieve all the data collected during the study. The enhanced capabilities of NVivo 12 aid the researcher by coding open-ended questions and using matrices to compare the responses from participants along with the notes from the researcher. This is accomplished by arranging and classifying the data to examine relationships, identify trends, sort sentiments, and link information using the search engine and query functions.

Within a phenomenological study, the researcher will embark on a methodical journey to collect, code, analyze, and report the data from the study participants (Starks and Trinidad, 2007). A qualitative research study focuses on the people in their natural environment to interpret and bring meaning to their experience of the phenomenon (Creswell, 2014). Qualitative research methods identify patterns and can detect unexpected insight to bring the researcher closer to the participants (Klenke et al., 2016). A qualitative study, therefore, can uncover specific themes that lead to future research in emerging leadership topics (Carter et
The use of qualitative data analysis software to analyze data with rich information and complex relationships augments what can be a nuanced and challenging endeavor (Gilbert, Jackson & di Gregorio, 2014).

The built-in analyses tools of NVivo Pro 12 enabled the researcher to visualize the project by using a word frequency query to list the most frequently occurring words, phrases, or concepts. The results from the word frequency query were used to generate a word cloud that was an ideal starting point for the researcher during the analyses phase of the study (see Figure 7). This visualization aided the researcher to identify possible themes that stem from notable common words used by each of the participants. As the initial foray into the process of data analyses, this provided the researcher with a starting point to consolidate thoughts and map a path through the stages of data analyses.
The word frequency query provided the researcher with a list of words that were then used to begin the coding stage of analyses. Coding in qualitative research is a central step to reduce the data into meaningful segments (Creswell, 2014). Using the query function in NVivo Pro 12, the researcher ran broad stroke queries with each significant word to identify occurrences within the interview responses for further exploration. These occurrences were highlighted within each interview question response. This broad stroke technique was key to establishing the nodes, a collection of references that were used to uncover the initial emerging themes.
The interview questions were grouped to align with each of the research questions independently to unclutter the initial results and provided a more manageable node structure to work with. To support research question RQ1, interview questions 1-16 identified ten nodes. Interview questions 17-21 were derived from research questions RQ1a and revealed five nodes. While interview questions 22-31 found eight nodes that supported research question RQ1b. Interview question 32 was intended to provide the participants with an open opportunity to reflect, thus had no direct correlation to a specific research question resulting in four nodes. By creating node hierarchies (parents and children) to organize the query results, the query results were consolidated into twenty-seven nodes to be reviewed further.

The resulting twenty-seven nodes were then formed into a node matrix to show how the contents of each different node related to the other. A matrix coding query was then used to cross-tabulate the nodes to make meaningful comparisons. The researcher also used manual coding to further identify similar patterns from the contextual interpretation of the software aided results. Upon completion of the multi-step process, the researcher narrowed the themes to the eight significant themes that best answered the research questions for this study.

The qualitative phenomenological approach used for this study opened the window to gain access to the intimate feelings of the participants of this study. To understand individual perceptions of career development of members on a
distributed team, the researcher must be immersed in the data. The researcher reflected upon each participant response through the transcripts, personal notes, and recollection of the interview. This clarified the relevance and determined how the data answers each of the research questions presented in this study. From the eight themes identified, seven had a direct correlation to the findings of the literature review, with one theme emerging that was previously not addressed in the literature.

**Research Findings**

The data from the participant interviews was conceptualized by coding, identifying important statements common between the interview question responses (Creswell, 2014). Within the NVivo Pro 12 project environment, the results from the coding process are identified as nodes. These nodes were further separated and grouped under the research questions to organize the results. The following research questions for this study guided the process:

**RQ1.** What do subordinates perceive to be significant influences of leadership activities that support or hinder career development on distributed teams?

**RQ1a.** Are distributed team leaders effectively utilizing technology to mitigate the challenges resulting from the lack of face-to-face interaction?

**RQ1b.** Do distributed team members consider themselves being at
a disadvantage compared to colocated team members on aspects of career development?

By establishing the initial nodes through this broad stroke approach, twenty-seven nodes were identified and separated by groups that aligned with the research questions (see Table 6).
Table 6. Initial Nodes Identified Through the NVivo Word Query.

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Node</th>
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| Research Question 1 | Distance  
|                    | Time  
|                    | Relationships  
|                    | Leader engagement  
|                    | Communication  
|                    | Technology  
|                    | Transformational leadership supports career development  
|                    | Transactional leadership hinders career development  
|                    | Informal leadership roles  
|                    | Guidance and feedback |
| Research Question 1a | Compensate for distance and time  
|                    | Video does not replace face-to-face  
|                    | Hard to build relationships  
|                    | Technology not always reliable  
|                    | Need to embrace technology |
| Research Question 1b | Desire for career development  
|                    | Breadth of Knowledge  
|                    | Exposure to wider organization  
|                    | Have to be self-motivated  
|                    | Transformational leader  
|                    | Interpersonal relationships  
|                    | Lack of opportunities  
|                    | Guidance and feedback |
| Interview Question 32 | Hard to build relationships  
|                    | Have to be self-motivated  
|                    | Leadership engagement  
|                    | Technology cannot replace face-to-face |

The researcher then cross-referenced the nodes in each grouping to identify the eight main research themes that addressed the research questions of this study.
(see Table 7). The eight themes that emerged are significant for leaders of distributed teams to understand how their influence can affect subordinate career development. The themes also represented a link between the two research sub-questions and the principal research question. In research question RQ1a, the leader’s effective use of technology is a key resource to mitigate the lack of face-to-face physical interaction. For research question RQ1b, there was a clear perception that those who can interact physically face-to-face with their team leaders have an advantage in career development. Both sub-questions underpin the need to build interpersonal relationships with each team member by understanding and relating to the challenges they face. Leaders who can successfully use technology to communicate can diminish the perceptions of favoritism between the distributed and colocated team. These leaders will be better positioned to positively influence and support career development on distributed teams.
Table 7. Eight Significant Themes of the Study.

<table>
<thead>
<tr>
<th>Themes Related to the Literature Review</th>
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<tbody>
<tr>
<td><strong>Theme 1</strong></td>
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<td><strong>Theme 2</strong></td>
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<td><strong>Theme 3</strong></td>
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<td><strong>Theme 5</strong></td>
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<td><strong>Theme 6</strong></td>
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<td><strong>Theme 7</strong></td>
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<td><strong>Theme 8</strong></td>
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**Themes Related to the Literature Review**

Seven of the themes identified by this study provide context to the literature reviewed. The themes relate to the findings of the extant literature on teams, leadership, technology, and career development. Each theme has woven the perceptions of the participants into organized descriptions that transfer across the literature to apply equally. The seven themes, therefore, are not new to each of the separate literature areas; however, they represent a holistic lens not present in the leadership and organizational literature.

**Theme 1. Be a Transformational Leader**

A transformational leader is one that can motivate, influence, stimulate, and provide subordinates individualized consideration. Distributed team members want
a leader that invests in each individual as a person with unique skills and unique challenges. The leader must recognize that a distributed team is a collaboration of people who together achieve organizational goals and objectives. Transformational leaders are more effective for distributed team members by motivating them to strive for professional and personal growth. A transformational leader communicates to people as equals while establishing a healthy leader to subordinate relationship.

Communication between the leader and subordinate should be personal when in a one-on-one setting. Leaders should display a vested interest in the individual to know them as a person who has life responsibilities outside of the workplace. A transformational leader will stay involved with the subordinate to guide them and acknowledge accomplishments. Transformational leaders can instill a feeling of each individual being a priority for the leader, even if they are equally motivating each team member.

On a distributed team, a leader who is committed can push individuals to challenge themselves. The influence of a transformational leader can simply be devoting the time to communicate and understand the individual needs. Subordinates will trust the leader, and in return, a transformational leader will trust the subordinate. Transformational leaders can also stimulate subordinates by encouraging them to pursue new goals and find new perspectives. Distributed team members are less likely to respond favorably to incentives with no personal
connection. It is not about what the team member can get in return; it is about what the team member can accomplish.

A transformational leader must acknowledge the differences between a colocated team and a distributed team. The use of technology to replace face-to-face interaction can degrade relationships. The transformational leader can lessen this impact by using video conferencing technology to create a more personal atmosphere. The transformational leader stimulates positive influence and stays involved to build stronger relationships and a more cohesive distributed team.

**Theme 2. Build Interpersonal Relationships**

Distributed team members can feel alone; isolated from the organization, their team leader, and the team. Geographic dispersion is the core attribute of a distributed team and is the most influential when it comes to feeling disassociated with the organization and others. Not only are you physically separated by distance, but distributed teams also must contend with differences in time zones. As a result, it can be challenging to establish consistent communication to overcome the lack of physical presence.

Distributed team members can benefit from physical face-to-face meetings. The consensus among the participants was that face-to-face communication promotes casual conversation, and when you physically meet someone, it is easier to learn who they are as a person. The majority of distributed team members have not physically met their team leader, something that can make it difficult to build
an interpersonal relationship. The reality is, most distributed teams do not have the opportunities to meet face-to-face unless the team leader and the company support the costs associated.

Team leaders must, therefore, use the advanced information technology (AIT) that the company provides as a resource for distributed team communication. Video conferencing can be a great benefit to take away the impersonal communication of email or phone conversations. Subordinates want to know that the team leader is paying attention to them, and by seeing the individual, it can give them a sense of assurance during that interaction. This is especially important during one-on-one communication but can be equally as valuable during group communication as well.

The team leader must devote time to establish consistent communication with each team member. They cannot become complacent and allow distractions to take away time to communicate with their subordinates. Interpersonal relationships are built over time, and the team leader must work harder to establish them as opposed to someone that they see physically every day. Get to know each team member as an individual, invest in them, and make the conscious effort to stay in touch with them. A strong interpersonal relationship can be difficult to build, but the rewards are vital to influencing career development.

**Theme 3. Use Technology Effectively and Consistently**

The unique challenges of working within the constraints of distance and
time make technology one of the most important resources a team leader can use. Technology is the mediator that bridges the spatial gap between members of a distributed team; it is the primary way to communicate. Team leaders need to leverage these resources and use them effectively based on the circumstance of the communication. Technology replaces the face-to-face communication used within a collocated environment; noticeably absent is the opportunity for impromptu conversations facilitated by just making eye contact.

Patterns need to be made that establish consistent and reliable communication channels. Distributed team members want to know that they can depend on their team leader to stay connected with them and want to know what is happening at their site. Answering a text, an email, or a phone call is just as important as sending one. A team leader would not ignore or walk away from a collocated subordinate who asks a question without at least acknowledging them. The same needs to happen for electronic communication from a distributed team member. Team leaders need to respond in a reasonable time, even if they need more time to research the question and provide all the information. Team leaders and subordinates should discuss expectations with which both parties agree.

Distributed team members do understand that situations arise, and at times, planned communication needs to be rescheduled. For the distributed team members, a simple text message just to say they did not forget but have to reschedule can speak volumes. It is the effective use of technology that can
supplement normal face-to-face communication, a quick text or email can substitute the morning hello or evening goodbye. These small efforts can instill a sense of caring and commitment from the team leader.

Advanced information technology (AIT) represents the collaborative tools an organization can use to promote the transfer of knowledge through the organization. These tools can enhance the way leaders, and subordinates communicate, and if used effectively, can mitigate the interpersonal relationship challenges of a distributed team. Video is a great tool to augment daily voice communication by providing a setting where the team leader and team member can share the virtual space. Despite the absence of physical presence, video can allow each to show what their surroundings are like, instead of trying to describe a moment in time. Technology cannot replace traditional face-to-face interaction. If used effectively, however, technology can mitigate the challenges of communication on a distributed team and foster stronger relationships.

Theme 4. Regularly Communicate and Engage

For a distributed team member, the only way to know that anyone in the organization knows about them is to receive consistent communication. This is an important aspect for a leader to remember since it is very difficult to have a positive influence over someone you do not communicate with. Relationships that take time to build can deteriorate much faster when communication becomes less of a priority. This again is a byproduct of the absence of face-to-face interaction;
inconsistent communication can lead to distributed team members feeling out of sight, out of mind.

Distributed team members look to establish routines that can be relied on and through which know that they will have regular communication with their team leader. This engagement from the team leader is a reflection of the leader’s commitment to the individual. Leaders of distributed teams must make an effort to establish these routines of communication with all members of a distributed team, individually and with the entire team together. Team communication is just as important to reinforce as individual communication. Each team member is exposed to similar challenges, and they can rely on their internal network for comradery. The team leader, by doing this not only promotes inter-team communication but also can help people from feeling that they are alone and on their own.

Distributed team members feel that peers who are in colocated environments gain an advantage when it comes to career development and career advancement. Those that are seen daily by either their team leader or other leaders in the organization are perceived to have more opportunities for communication and engagement. The colocated environment provides opportunities for spontaneous conversation that occur naturally in the setting. The team leader should also attempt to create those spontaneous conversations through unplanned contact the subordinate. Establishing these communication routines can help the team member feel less alone and out of sight.
Theme 5. Ask Questions and Listen

Subordinate career development is dependent on leadership influence and involvement. Career development is a collaborative effort that must be equally shared between the leader and the subordinate. The leader, by using active listening, can convey commitment to subordinate career development. A subordinate who is motivated by their team leader will actively engage and seek opportunities for career growth. It is up to the leader to actively listen in order to understand what each subordinate wants to achieve for their personal career development.

When a leader and subordinate discuss career development needs, it is important to document these in a development plan for the individual. Asking questions, discussing, and ultimately agreeing on the goals will show that the leader is listening to the subordinate. If the leader and subordinate have established an interpersonal relationship, this will also give confidence that the leader will help steer the progression of these goals in the right direction. The team leader needs to be available to talk throughout the process. Establishing these open lines of communication is important, with video providing a more personal conversation.

Each team member will have their career aspirations, and it is the leader’s responsibility to motivate, influence, and stimulate the team member on a personal level to achieve these aspirations. Since individual career development is a collaborative effort between the team leader and the subordinate, the leader can only provide guidance based on what they know. The leader must continue to ask
questions and listen to understand what the subordinate strives to achieve.

**Theme 6. Provide Constant Guidance and Feedback**

A team leader has the responsibility to monitor team performance to meet organizational goals. However, it is just as important that they be acutely aware of how each individual is performing as part of the team. A team leader who has established consistent lines of communication and knows what the subordinate is seeking in terms of career development can provide guidance to achieve these goals. The team leader needs to make development progress a recurring discussion.

Once the career development goals are established, the leader needs to stay actively engaged by providing feedback on progress towards meeting these goals. Providing positive feedback on individual accomplishments and milestones achieved can provide the encouragement to stay motivated. Likewise, leaders must also learn how to communicate feedback when they notice the subordinate may be straying away from the objectives. This type of feedback is important to help guide the subordinate back on track and shows the subordinate that the leader is paying attention, even if the leader is not there to watch him.

As career development goals are achieved, the leader must also be willing to look for new opportunities outside of the subordinate’s current role. The team leader has to watch for stagnation and look where opportunities for growth may exist. With the unique differences and challenges for each location, a lateral move within the team may stimulate new opportunities. This gives equal consideration to
each team member so long as they are given a choice to be part of the conversation.

**Theme 7. Promote Informal Leadership Opportunities**

A team leader that is actively engaged with their team can readily identify opportunities for distributed team members to gain valuable experience through informal leadership roles. The team leader should not substitute shared leadership responsibilities for regular communication. Instead, by promoting informal leadership roles, the team leader can provide alternate avenues for the transfer of information. This can be especially beneficial to distributed team members located internationally, where time zones can be a hindrance for communication.

For career development, informal leadership roles give the subordinate the opportunity to learn leadership skills by interacting with other team members. When the team leader establishes these roles across the team, this can promote collaboration on the team and create stronger relationships and trust. Team leaders who distribute shared leadership responsibilities through informal leadership roles can instill equality between team members. The leader also should listen to ideas and suggestions from team members, as they can also identify informal leadership opportunities.

Self-motivated subordinates will actively seek opportunities by volunteering when they identify an opportunity. Team leaders must be aware of these emergent leaders. In a group setting, it is often easier to identify those that have been elected by the team. They are typically the more vocal on the subject and have already
begun to take the initiative. By using technology to regularly connect the entire team at the same time, the team leader can observe the dynamics between team members. In this capacity, informal leadership roles promote team unity and individual development.

**New Emerging Theme**

The eighth theme that was identified during the data analyses incorporated an element not present during the literature review. In the literature review, the research found that leaders on distributed teams need to be aware of the challenges that differentiate a distributed team separate from a colocated team. The main challenges of distance and time are well researched, along with the leadership attributes that are moderated by these challenges. E-leadership emerged as a framework for technology to influence as a mediator between the leader and the follower. A new element that this study identified is the perception that the influence of technology can erode the human factor over time, regardless of the technology in use, ultimately adversely impacting career development. In this context, the internal needs of the follower is a theme not addressed in the current literature.

**Theme 8. Show Empathy by Recognizing Individual Challenges**

Distributed team members want their leader to show they understand the challenges faced by being geographically dispersed. The unique challenges each
team member must contend with daily create stress that can go unnoticed. Distributed team members desire a team leader that can understand another person's point of view or the result of such understanding. With empathy, one can imagine themselves in another's shoes, or if your empathy is born of experience, that you have gone through the same hardships.

Empathy creates an understanding and acceptance between the leader and the subordinate. Often used interchangeably but incorrectly with sympathy, the subtle differences between the two meanings can lead to a false sense that they are looking for sorrow or pity from others. This could not be further from the truth, as distributed team members seek empowerment through understanding. Empathy enables the leader and follower to connect on an interpersonal level, relating to the situation and perceptions through communication. Empathy, therefore, has the capability to evoke the human factor in the influence from technology when mediating communication on distributed teams.

**Contribution to Applied Practice**

The research conducted during this study is intended to help leaders of distributed teams better understand how to inspire through a positive influence on career development for subordinate team members. The dispersed workforce continues to grow at a rate nearly ten times faster than the traditional colocated workforce, increasing by 115 percent since 2005 (Global Workplace Analytics [GWA], 2018). The findings from this study raise awareness that distributed team
members are facing challenges unique to the organization. The increased understanding of the distributed team member experience will guide the organization and leader to make more informed leadership decisions.

The researcher identified eight themes that offer insight into what distributed team members perceive to be positive leadership attributes. Leaders who acknowledge and implement these themes can create a culture that promotes and empowers subordinates towards career growth and development. Leaders must continue to embrace technology as a mediator to connect with subordinates who are geographically dispersed. Understanding and relating to the challenges of being on a distributed team is key for the team leader to be able to connect personally with each team member. The findings presented are the foundation for leaders and subordinates to create a collaborative partnership to navigate the career development journey.

**Synthesis and Summary of Data**

The intent of this qualitative phenomenological study was to gain a better understanding of the perceptions distributed team members have towards leadership influence that support or hinder career development. An industry-leading global aviation corporation that utilizes an extensive network of field support teams to provide product support for domestic and international customers across the world was investigated. The findings from this study support existing findings in the literature and also contribute new and relevant research to the existing body of
knowledge relating e-leadership to individual career development.

This study identified eight themes that are significant to understand how leadership influences by team leaders of distributed teams can support or hinder subordinate career development. Distributed team members respond positively to a transformational leader, where the emphasis is on motivation, influencing, stimulating, and individualized consideration. Geographic dispersion on distributed teams prevents routine face-to-face interaction; instead, constraining communication to various forms of technology-driven applications. Leaders must, therefore, leverage all of the resources available to engage regularly with each team member. Distributed teams face unique challenges not experienced in a colocated environment, and these challenges need to be recognized and understood by the team leader. By building interpersonal relationships that can be anchored with empathy, leaders can positively influence career development.

Chapter four provided an overview of the research study and detailed the process used for data analyses. Through a series of coding iterations, the researcher was able to identify eight significant themes that emerged from the interview data. Seven of the themes identified provide new context to the extant literature on teams, leadership, technology, and career development. An eighth theme introduced a previously unaddressed focus on empathy in the current literature on e-leadership. In addition to the academic contribution, the themes provided practical insights for leaders to understand how leadership activities can positively
influence the career development of geographically dispersed team members.

Chapter five comprises a discussion of the significant themes that emerged from the data analyses, a summary of the methodology used, a discussion of the results, the implications of the results, and evidence-based recommendations for further addressing the problem.
Chapter 5. Discussion and Recommendations

Overview

The purpose of this qualitative phenomenological study was to explore subordinate perceptions of leadership activities that support or hinder career development of members on a distributed team. Many organizations have extended beyond home markets to attract new customers and meet the increasing demand for products and services. To remain competitive in this age of globalization, some organizations are finding it necessary to alter past business models and leadership strategies to accommodate a global workforce (Kanter, 2013). Distributed teams provide these organizations the flexibility to execute global strategy by using technology to overcome geographic dispersion.

Technology has further influenced this growth by providing a means to connect distributed teams that very often do not have regular opportunities to meet face-to-face. Distributed teams create a unique environment that mediates the leader-follower relationship with Advanced Information Technology (AIT). E-leadership has emerged as a framework for leadership and technology to manage distributed teams and facilitate subordinate career development (Avolio et al., 2001). The researcher for this study used a qualitative phenomenological approach to gain a better understanding of how e-leadership impacts individual career development.
Qualitative research in leadership studies is useful to identify patterns, especially in emerging leadership concepts (Carter et al., 2015). The qualitative research design of this study, along with a phenomenological approach, provides the meaning and lived experiences for several individuals of a concept or phenomenon (Creswell, 2014). The researcher conducted in-depth, one-on-one, scheduled phone interviews with seven study participants. The responses from each participant were the influencing factor that determined the emergence of the significant themes, patterns, and relationships identified by this research study providing a voice to the lived experience of the individual (Creswell, 2014; Merriam, 2009).

This study identified eight significant themes that provide insight for leaders of distributed teams to understand how leadership influence can affect subordinate career development. Distributed team members identified that leaders who possess transformational leader attributes have a positive influence on career development. Distributed team members responded favorably when the emphasis is on motivation, influencing, stimulating, and individualized consideration. In a distributed team environment, individuals can feel isolated when separated from the organization, their team leader, and the team. Interpersonal relationships are built over time, and the team leader must work harder to establish them as opposed to someone that they see physically every day.

The geographic dispersion of distributed team members prevents routine
face-to-face interaction. Therefore, leaders must effectively use technology-driven applications for everyday communication. It is paramount that leaders leverage all technology-related resources to regularly communicate and engage with each team member. When open communication is established and consistent, the leader can become more aware of individual career goals. Career development is a collaborative effort between the leader and subordinate; leaders who ask questions and listen are perceived to be more committed. By providing guidance and feedback, leaders can encourage subordinates to continue on a path to achieve milestones or redirect if the subordinate begins to stray off course.

Leaders should actively seek informal leadership roles for subordinates and stay cognizant of emergent leaders who independently seek such opportunities. Distributed teams face unique challenges not experienced in a colocated environment that need to be recognized and understood by the team leader. By building interpersonal relationships that can be anchored with empathy, leaders can positively influence career development.

The remainder of chapter five will detail the contribution of this study, including a discussion of the findings and the implications, and include recommendations for leaders to implement on distributed teams as well as suggestions for future research.

**Contribution of the Study**

This qualitative study contributed to the existing body of knowledge by
identifying eight significant themes that add new and insightful information. The literature reviewed in chapter two focused on teams, leadership, technology, and career development. To further identify the environment of the targeted participants, the researcher narrowed the focus of the study to distributed teams and how e-leadership enhances the effectiveness of traditional leadership. Each topic within the literature reviewed discussed leader to subordinate relationships. However, the researcher noticed research that addressed all of the topics collectively was not present.

This research study explored subordinate perceptions of leadership activities that support or hinder career development of members on a distributed team. The following research questions were used to guide the study and are restated to begin each discussion.

**Principal Research Question**

*Research Question 1 - What do subordinates perceive to be significant influences of leadership activities that support or hinder career development on distributed teams?*

The principal research question is reflective of the leadership activities that distributed team members perceive to be the significant influences that influence career development. It was important to recognize not only what subordinates are seeking, but also what subordinates feel are not conducive for career development. Consequently, the findings that were deemed to be negative influences were
inversely related to the positive influences, where leadership activities can be both positive and negative, depending on how the leader executes such activities. Encompassing the element of the dispersion that inhibits daily face-to-face interaction, the principal research question set to identify leadership activities that have positive and negative influences. By doing so, the researcher was able to recognize those activities that leaders should strive to incorporate that best reflect what distributed team members seek from leaders to have a positive influence on career development.

Research Sub-Questions

The two research sub-questions were derived from the dominant element that distinguishes a distributed team apart from a colocated team that share a common workplace, that being the absence of daily face-to-face interaction. The nature of the distributed environment reduces the opportunities to meet face-to-face between team members and the team leader; thus, technology is the primary method of daily communication.

*Research Question 1a - Are distributed team leaders effectively utilizing technology to mitigate the challenges resulting from the lack of face-to-face interaction?*

Research question 1a, therefore, focused on the distributed team member’s perception of how well the team leader uses technology to mitigate the challenges of communicating over distance with subordinates. The findings indicated that
technology was an important part of the communication infrastructure and that team leaders need to do a better job of utilizing what is available. Likewise, the organization must also continually evaluate the technology currently in use and make investments to upgrade hardware and software applications. The participants highlighted that video is not widely used and feel that there could be more emphasis placed on using video as a routine form of communication. Overall, the perception from the participants is that the team leaders are not effectively using technology to mitigate the challenges resulting from the absence of face-to-face interaction.

*Research Question 1b - Do distributed team members consider themselves being at a disadvantage compared to colocated team members on aspects of career development?*

Colocated team members are not constrained to technology when communicating with team leaders and are able to have face-to-face interaction on a daily basis. Research Question 1b accordingly focused on the distributed team member’s perception of how such daily interaction is advantageous to the colocated team member. Subordinate career development is not only dependent on leader involvement; the leader can significantly influence subordinate career development through leadership activities. Since the participants did not feel that technology is being used effectively to mitigate the absence of face-to-face interaction, it was not a surprise when the findings showed the participants perceive themselves to be at a disadvantage for career development when compared to colocated teams. This,
according to the participants, was a direct reflection of the lack of opportunities to meet face-to-face with the team leader. It was the feeling of the participants that because a colocated team functions within a shared environment, there are more opportunities to be seen, and it was easier to build relationships with the team leader. This resulted in the participants feeling that they have fewer chances for career development.

**Results and Theoretical Model**

The findings from this study provided insight into the perceptions of distributed team members regarding how leadership influences career development. The present study identified eight themes that addressed both research sub-questions and the overarching principal research question by highlighting what leaders should strive to implement when leading distributed teams. The themes represent the leadership activities that are perceived to be positive influences that support subordinate career development on distributed teams.

Seven of the themes identified provided context to the literature on distributed teams, leadership, technology, and career development. This context was in the form of individual perceptions captured during the participant interviews. Research to this point had predominantly focused on the leader perspective. The seven themes, therefore, not only relate to each area of the literature reviewed, but each of the seven themes also connects the literature topics in a way not present in extant literature.
The researcher also identified one new emerging theme not present in the current literature. Within the leadership literature reviewed, it was noted that e-leadership was not a new form of leadership. Instead, e-leadership emerged as a framework for leaders to use technology as a mediator for communication (Gurr, 2004). In the literature, the e-leadership framework described how leaders and followers relate in a technology-mediated environment but did not address how technology affects the leader to the subordinate relationship.

The theoretical framework of this study is based on the concept that technology through the e-leadership framework influences both the leader and follower. The theoretical model in chapter two was supported by the research findings where the absence of face-to-face interaction and the reliance on technology-mediated communication needs to be offset by positive leadership influences. The participants’ perception is that the influence of technology as the primary means of communication could erode the human factor over time, regardless of the technology in use. The seven themes that relate to the extant literature reviewed are actions that leaders can use to be a positive influence on career development. By establishing core behaviors through existing leadership principles, leaders can implement the themes as a guide for building relationships through communication with each subordinate. The eighth theme identified that empathy could enable the leader and follower to connect on an interpersonal level. This connection creates a mutual understanding between the team leader and the
subordinate related to the challenges of the dispersed environment. The theoretical model, therefore, represented the unique influence that e-leadership imposes on the leader to follower relationship for distributed teams. The themes identified through the research findings provide the attributes leaders should embrace to be a positive influence on subordinate career development.

Discussion and Implications

Overview

Being on a distributed team can pose unique challenges for the individual team member. The team leader must recognize and understand these challenges in order to have a positive influence on subordinate career development. The findings of this research study provided valuable insight into the perceptions of distributed team members that organizations and leaders must take into consideration to make informed decisions. Distributed teams are an important part of the global corporate structure that enables organizations to reach into markets without establishing large organizational footprints (Greer & Payne, 2014). As organizations continue to geographically disperse employees by using distributed teams, leaders must emphasize to each team member that they are still part of the organization and have equal opportunities for career development. The findings of this study identified eight themes that will promote positive leader influence with each distributed team member.
Theme 1. Be a Transformational Leader

The study participants were asked to describe the leadership attributes of their team leader, followed by what leadership attributes actually motivate each participant. By comparing the responses from each participant, the objective was to identify those leadership attributes that support or hinder career development. The responses from each participant strongly aligned to those of a transformational leader, and through the responses, the four tenants of motivates, stimulates, influences, and individualized consideration were prominently identified. It was perceived that on a distributed team, a leader who exhibits transformational attributes is more effective than a leader who relies on transactional leadership, where with the latter, the focus is on achieving organizational goals. The participants seek a leader who can balance organizational goals with the individual goals of their subordinates. Transformational leaders, therefore, can have more success guiding distributed teams to achieve organizational goals when subordinates can also achieve professional and personal growth.

The findings of this study clearly identified that transformational leaders have a positive influence on distributed team members. The impact of a transformational leader benefits the organization, the distributed team, and the distributed team member by aligning organizational goals with the needs and desires of the employee (Giannantonio & Hurley-Hanson, 2006). The findings identified that transformational leaders are more effective motivating distributed
team members to strive for professional and personal growth, extending the link that transformational leadership has to higher commitment, involvement, loyalty, and performance of subordinates (Bass, 1999). Carter et al. (2015) stated that leaders guide and inspire subordinates, and the present study found this to also be relevant to distributed teams. The participants’ perception of a transformational leader having a positive influence agrees with the literature reviewed, especially on distributed teams where there are fewer opportunities for face-to-face interaction (Allen & Vakalahi, 2013). Leaders who adopt transformational attributes will build stronger relationships with each team member and create a more cohesive distributed team.

Theme 2. Build Interpersonal Relationships

Distributed teams inherently by design preclude team members from interacting physically in the same space as the team leader and other team members. As noted during the interviews, this can cause team members to feel isolated from the organization, the team leader, and the team. This isolation over time can lead to a feeling of disassociation from the organization. The findings indicated that team leaders must actively stay involved with each team member, more so than on a colocated team due to the absence of daily face-to-face interaction.

The challenge that team leaders face is establishing consistent communication with subordinates that are physically dispersed. Distance makes
meeting face-to-face on a daily basis essentially impossible, and depending on the exact geographic location of each team member; there may be extreme differences in time zones. The participants wanted the team leader to use the full complement of advanced information technology (AIT) in order to have increased opportunities for communication with the team leader. Interpersonal relationships are built over time, and the team leader must work harder to establish them as opposed to someone that they see physically every day. Team leaders must prioritize established and consistent communication with each team member. Building a strong interpersonal relationship with each subordinate can be difficult, but the key to having a positive influence on career development.

Leadership literature has identified that the effectiveness of a leader on a distributed team has not fully accounted for the challenges of a dispersed environment (Strobl & Kohler, 2013). The findings in this study have brought to the forefront the need for increased interaction between the team leader and team members. According to Judge and Kammeyer-Mueller (2012), interpersonal relationships have a profound effect on individual job satisfaction. Zofi (2012) stated that distributed environments are absent of the non-verbal cues that are present with face-to-face interactions that are important for interpersonal relationships. Masuda et al. (2017) discussed how distributed teams miss out on both formal and informal opportunities for socialization. The findings and the literature reviewed agreed that interpersonal relationships are important to
establish, and leaders must overcome the challenges of the geographically dispersed environment.

**Theme 3. Use Technology Effectively and Consistently**

The findings indicated that the research participants understood that Advanced Information Technology (AIT) should be used to supplement face-to-face interaction. Schulze et al. (2017) stated that technology must be used to mediate relationships between the leader and subordinate when geographically dispersed. Distributed teams lose the ability to share their surroundings and miss out on important visual cues like body language that help build relationships with their team leader. As the next best alternative, the organization should invest in capable video conferencing technology, allowing individuals and teams to create virtual meeting spaces. Video conferencing, however, lacks the human factor, and the findings indicated that technology could not replace a face-to-face meeting.

Corporations are investing more in AIT to standardize the communication infrastructure used for global customer support (Vomberg et al., 2015). Distributed teams rely on this technology for everyday communication between their team leader and other members of the distributed team. Organizations are also using technology to disseminate corporate news and information to a wider audience. With such a reliance on technology to transfer information and communicate on distributed teams, team leaders must, therefore, strive to personalize communications with each team member for technology to be an effective
alternative to face-to-face interaction. Career development is a collaborative effort between the leader and subordinate, and technology provides the means to facilitate communication on distributed teams.

As the primary means of communication for a distributed team, the findings aligned with the current literature that stated technology connects distributed team members separated by increased geographic dispersion (Koehne, Shih & Olson, 2012). According to Schulze et al. (2017), organizations must consider the challenges distributed teams face from mediating relationships with technology. The findings described how each location exposed each team member to similar challenges but also challenges that are unique to that location. Also noted in the literature was that technology mediates relationships and will influence the team's social structure (Avolio et al., 2014). The participants conveyed that communication limited only through technology will, over time, weaken relationships and cannot replace face-to-face interactions. Technology such as video can augment face-to-face interaction but does not capture all nonverbal cues such as body, face, voice, appearance, touch, distancing, timing, and physical surroundings (Burgoon et al., 2016). Distributed teams operate in autonomous environments; thus, technology used ineffectively can result in demotivation and lower commitment from subordinates, ultimately impacting career development (Cascio & Montealegre, 2016).
Theme 4. Regularly Communicate and Engage

For the participants of this study, it was essential that the team leader maintains regular communication with each member of a distributed team. When communication between the team leader and the subordinate is inconsistent, the findings indicated that relationships took longer to build and could deteriorate much quicker. Avolio and Kahai (2002) stated that reduced communication could negatively impact subordinate perceptions of the leader. Regular communication and involvement, according to Gurr (2004), will keep subordinates from feeling isolated from the team and organization. Team leaders should establish routines that subordinates can rely on since it is important for distributed team members to have regular communication with the team leader. Regular and engaging communication from the team leader demonstrates a commitment to the subordinate. The team leader needs to set the example by initiating contact with subordinates; this is seen as a positive leadership influence. Establishing open lines of communication will invite subordinates to feel there is an investment in them on a personal level. A distributed team member who has suffered through sustained low levels of communication and has little to no interpersonal relationship with the team leader will most likely be unhappy with their career development progress. Ultimately, this could result in a loss of desire to pursue career development or advancement beyond the current role and could lead to the team member seeking employment elsewhere.
Organizations must be aware that distributed team members provide support on the customer site and can develop relationships with those not associated with the company. Distributed team members are with their customer face-to-face every day. As if on a traditional colocated team, distributed team members could build stronger relationships with the customer than with their organization or team leader. This could have an adverse effect on subordinate career development and on the organization. Pinjani and Palvia (2013) stated that reduced communication can strain relationships and could result in subordinates leaving the organization.

Participants in the present study described feeling disconnected from the team and organization when communication was infrequent and impersonal. Zaccaro et al. (2001) stated that team leaders must maintain effective team interaction and integration while also providing individualized attention to each team member. The participants in this study seek leaders that will devote time to give each team member equal consideration for communication and discussions on career development. Geographically dispersed teams present significant challenges for the leader when coordinating communication, but leaders must keep these challenges from discouraging subordinates (Fiol & O’Connor, 2005).

**Theme 5. Ask Questions and Listen**

With the absence of regular communication, the findings uncovered that when the team leader and the subordinate did talk, there was a perceived lack of sincerity from the team leader. Distributed team members are seeking leaders who
will be actively involved with subordinate career development. According to Judge et al. (1999), leaders who ask questions and listen to subordinates will gain a better understanding of career goals. A leader who is willing to take the time to ask questions will convey that they are truly interested in learning about each team member. This goes beyond learning who they are as a team member; leaders need to learn about the person to understand why subordinates want to achieve these goals. It is not only about asking questions. Team members also want the team leader to listen, as this is the only way the leader can gain the knowledge to understand what each team member is striving to achieve for career development.

Leaders have a responsibility to provide individual attention to help subordinates achieve career goals. Career development, as stated by Higgins and Kram (2001), is a collaborative effort between the leader and subordinate. As a collaborative effort between the leader and the subordinate, career development needs active participation from both sides. Leaders can facilitate career development by making themselves available to have routine discussions. Leaders who do not show an interest to devote individual attention will distance themselves from subordinates. After a while, subordinates will begin to lose confidence that the leader is invested in their career development. Giannantonio and Hurley-Hanson (2006) state that subordinates who are motivated and committed to career growth will be active participants in career development and planning. Leaders must be committed to subordinate career development, and this can only happen
when leaders continue to ask questions and listen to what their subordinates are striving to achieve.

According to Judge et al. (1999), leaders who solicit employee involvement and listen to individual needs can gain a better understanding of what motivates individual growth. The participants in this study wanted more interaction with the team leader, feeling that a lack of involvement meant the leader was not invested in subordinate career development. Leaders who foster trust through communication will guide subordinates to identify goals and motivate subordinates to achieve their goals (Morgeson et al., 2010). Leaders who keep open lines of communication by involving subordinates in the discussion by asking questions and listening to what each subordinate has to say will encourage subordinates to be active participants in career development planning and execution (Giannantonio & Hurley-Hanson, 2006).

Theme 6. Provide Constant Guidance and Feedback

The distributed team members in this study seek guidance through the experience and knowledge from the team leaders. According to Kozlowski and Bell (2003), the leader provides individual coaching and feedback to promote career growth. Subordinates want the team leader to monitor individual progress and provide feedback to help meet career goal. O’Connell et al. (2008) found that career development was strongly influenced by the level of leader support and motivation. The findings support the literature in that leaders and subordinates need
to establish recurring discussions about career development and stay actively engaged to ensure each team member stays on track. Leaders need to highlight achievements but also need to find ways to provide constructive criticism that will motivate and not discourage. Team leaders are entrusted not just to lead teams; they are responsible for leading people.

Communication is more than just scheduled calls or emails to pass along information. Leaders are put into positions because they have gained the experience and knowledge to lead teams and develop future leaders. Team leaders must remember that one day, those they lead now will eventually be the ones who will have the experience and knowledge to lead others. Leaders must stay connected with subordinates to look for signs of stagnation and encourage growth opportunities. Liukkunen and Markkula (2012) emphasized that when the leader and subordinate relationships are mediated by technology, leaders must be conscious of maintaining consistent communication to monitor subordinate progress. Distributed team members who have less contact with the team leader will begin to lose interest in career development and will not push themselves to achieve more than what is required. Those team members who at one time were focused on developing into leaders will soon be less interested in making that next career step. This is a loss for the individual and the organization; leaders should take this personally and do what they can to keep such a circumstance from taking shape. Subordinates need leaders who will make subordinate career development a
Kozlowski & Bell (2003) stated that a leader needs to provide individual coaching and feedback to promote career growth in subordinates. The participants in this study wanted leaders to monitor progress and give constructive feedback. According to O’Connell, McNeely, and Hall (2008), employee career development was strongly influenced by the level of leader support and motivation. Leaders who provide constant guidance and feedback keep subordinates engaged and motivated. Subordinates who stay motivated will actively seek opportunities for career development and will be more receptive to leader feedback (Renee et al., 2007).

**Theme 7. Promote Informal Leadership Opportunities**

The participants in this study did not feel that there were ample opportunities for career advancement in the current role. This, however, does not mean that opportunities for career development do not exist. Distributed teams are made of unique individuals and talents; resources team leaders can use to share leadership responsibilities. Team members want to feel more connected with the team and the organization. According to Hoch and Kozlowski (2014), shared leadership promotes collaborative decision making while giving teams members increased responsibility. Shared leadership provides a means for team leaders to identify opportunities for informal leadership roles, where subordinates can lead projects and smaller teams. Team leaders should also actively monitor team members and look for those that continue to volunteer to offer assistance to others.
Those that often speak up during team meetings and provide responses during group emails are displaying their potential as leaders. Team leaders must recognize the characteristics of an emergent leader and encourage this behavior whenever possible.

What leaders need to avoid, however, is shifting the responsibilities of the leader and subordinate communication to informal team leaders. Leaders must use informal leadership roles to develop subordinates and not use informal leadership roles to substitute for routine communication. Informal leadership roles will give confidence to the subordinate and create trust between the leader and the subordinate. Informal leadership roles will also provide exposure for the subordinate to other areas of the organization outside of the immediate distributed team. Kozlowski and Bell (2003) stated that a leader should find opportunities to expose subordinates to the wider organization. This exposure will open new opportunities for career development and advancement for the distributed team member.

Judge et al. (2014) stated that leaders could guide subordinate career development by empowering subordinates through informal leadership roles. The participants in this study recognized career advancement was difficult on distributed teams, but still were eager for career development opportunities. According to Hoch and Kozlowski (2014), leaders can use shared leadership and emergent leadership to establish informal leadership roles. Shared team leadership
promotes collaborative decision making and gives individual team members increased responsibility (Hoch & Kozlowski, 2014). This increased responsibility is seen by the study participants as trust in their ability and motivates the participants to seek informal leadership roles. The study participants stated they would be inclined to volunteer to take on additional projects, much like emergent leadership where individuals rise among the team to take on informal leadership roles (Pearce et al., 2004). Leaders who encourage subordinates to take on informal leadership functions will positively influence career development and promote a stronger distributed team (Carte & Becker, 2016).

Theme 8. Show Empathy by Recognizing Individual Challenges

The largest challenge a distributed team member faces is coping with the effects of being geographically dispersed. Team members who are geographically dispersed and work autonomously will begin to feel disassociated with the organization, and this feeling is magnified when the team leader cannot relate to the challenges faced. Even something as simple as daily communication can be overlooked as being an important part of leader-subordinate relationships. Distributed team members want team leaders to recognize and understand from the team members point of view, feel what they must cope with every day.

Empathy defines this understanding as an acceptance between the team leader and the subordinate. Team leaders must not feel sorry for subordinates; instead, they need to show the appreciation that these individuals are willing to
sacrifice the normalcy of a colocated team environment to support the organizational goals. When this understanding is reached, the team member will feel empowered by knowing they are in a unique and challenging role not suited for everyone. Team leaders who promote empathy establish a personal bond with each team member, mitigating the challenges of distance communication, and restoring the human factor that technology cannot recreate.

Summary of the Themes

The practical implications discussed were derived from the research findings of this study. Distributed team members seek leadership that will facilitate open and meaningful communication that allows them to feel they are still part of the organization, even if they are geographically dispersed. Team leaders who can relate to the challenges of being on a distributed team will be able to connect personally with each team member. Leaders need to establish a framework to create a collaborative partnership with each team member to have a positive influence on subordinate career development.

Limitations

Study Participants

As discussed in chapter four, the distributed teams explored for this study were specific to the aviation industry and are part of a predominantly male career
field. It would be interesting to see if female participants would have similar or
different perceptions as compared to the male participants. In addition, all of the
participants have never served on a colocated team within the organization,
reflective of each being hired into the organization to immediately support a role on
distributed teams. Having a direct comparison between the lived experience on a
colocated team and a distributed team would be an interesting view to explore. The
age of the participants was also not collected for this study, with the assumption
made that each were career aviation professionals, having extensive experience and
knowledge in the field.

Study Design

The design of this study limited the interaction between the researcher and
participants to technology-mediated communication. Although this was purposeful
due to the geographic dispersion of the participants, conducting the interviews face-
to-face could provide details that the phone interviews could not. This aligns with
the research findings that body language and visual cues are not present, and could
provide context to the emotion of the participant during their responses. Future
research could take advantage of video conferencing to supplement the interview
process and provide a greater level of detail to include human emotion into the
analyses and results of the findings.
Recommendations

Organizations that utilize distributed teams must fully comprehend the individual sacrifices people make when they work in a non-traditional environment. Distributed team members are aware of the fundamental challenges of geographic dispersion and time zones, but not the prolonged consequences this work environment can have. The present study found that interpersonal relationships are difficult to build in a distributed environment when one must rely solely on technology to communicate. The level of team leader involvement ultimately will either provide positive or negative influence on subordinate career development.

Create an Empowered Culture

The researcher recommends that distributed team leaders acknowledge and implement the eight themes to create a culture that promotes and empowers subordinates towards career growth and development. Communication is a vital part of this process, and organizations must continue to invest in technology that will enhance the modes of communication on distributed teams. Leaders must embrace and incorporate technology to facilitate consistent and meaningful communication with subordinates. Both the organization and the leader must, however, appreciate that technology has yet to fully replace face-to-face physical interaction.
Face-to-Face Meetings

Regardless of the investment made into technology, there needs to be an equal investment into people. The importance of physical meetings between the team leader and the distributed team members in a group setting cannot be overstated. Organizations, therefore, must find avenues to interrupt the extended periods between face-to-face meetings of distributed teams. Also, it is essential for the team leader to familiarize him/herself with each operating location. Team leaders that visit each operating site will learn the unique challenges and gain a firsthand perspective. Organizations and team leaders need to find a balance between using technology and periodic face-to-face meetings; this will reinforce relationships by making sure the human factor is not lost.

Mentorship

Distributed teams have many challenges, and one, in particular, is individual mentorship. Distributed team members’ desire mentorship, either through their team leader or someone within the organization. Whether received through formal mentorship or informal mentorship, the guidance sought is from the experience and knowledge the team members would like to gain. Team leaders can informally provide elements of mentorship by adopting the themes identified in this study. Team leaders should discuss mentorship with subordinates, and if desired, establish formal mentorship with leaders from other areas of the organization.
Summary

Leaders must actively engage with each team member and use technology effectively based on the need and circumstance. Distributed teams face unique challenges not experienced in a colocated environment, and these challenges need to be recognized and understood by the team leader. Leaders can use this knowledge to demonstrate empathy to the subordinate, substantiated by experience. By building interpersonal relationships anchored with empathy, leaders can create a personal bond with each team member. Leaders must be the source of positive influence in order to counter the inherent challenges of distributed teams to promote subordinate career development.

Suggestions for Future Research

The current qualitative study contributed new and exciting findings to help gain a better understanding of how leadership influences career development on distributed teams. This study focused on the perceptions of distributed team members from a single employer in the aviation sector. The following recommendations are offered to attract interest in exploring the distributed team environment further.

Expand to Other Business Sectors

This study canvassed distributed teams from a single corporation within the aviation sector, and as such, the findings are only generalized and limited to this
corporation and business sector. Researchers who wish to build upon this study and investigate other companies and business sectors would expand the scope of the findings. The additional data gathered could be used to generalize the findings across a broader selection of industry.

Subordinate Influence on Career Development

The intent of this study was to place emphasis on distributed team members and their perceptions of leadership influences that support or hinder career development. The study identified eight themes that reflect what the leader should do in order to have a positive influence on career development. Career development is not just the responsibility of the leader; each individual should be an active participant in their career development (Giannantonio & Hurley-Hanson, 2006). Research on career development for distributed team members could benefit from future studies that explore what a distributed team member could do on their own behalf to build a stronger relationship with their leader and to further their own career development.

Quantitative Study

The qualitative approach used for this study can be used to shape the focus of future quantitative studies. The themes that emerged from the findings in this study identified significant leadership influence. These influences can be measured through quantitative research to quantify the problem by way of generating
numerical data or data that can be transformed into usable statistics. Such a study could quantify attitudes, opinions, behaviors, and other defined variables. The findings from a quantitative study could be used to generalize the results from a larger sample population.

**Summary**

Chapter five started with an overview of the findings and detailed how subordinates perceive leadership influences that support or hinder career development on distributed teams. The findings contributed to the existing body of knowledge with the eight themes identified, inclusive of the one emergent theme not previously addressed in the extant literature. This chapter also included recommendations to organizations and leaders on how to best implement these findings. The researcher concluded with suggestions for future research that could expand upon this study.

The eight themes identified are immediately actionable for distributed team leaders. The themes are significant for leaders to self-reflect and to understand how leadership influences can support or hinder subordinate career development. Leaders who acknowledge and implement the findings can positively influence career development by countering the inherent challenges of distributed teams.

The common characteristic shared by all distributed teams is the geographic dispersion that prevents routine face-to-face interaction. Unless organizations and leaders identify opportunities to gather the team periodically in a single location,
communication is confined to technology-driven applications. Leaders must continually engage subordinates interpersonally to keep consistent and meaningful open lines of communication. Career development needs to be a regular discussion and an ongoing process of identifying opportunities for the subordinate within the team to take on informal leadership roles.

The unique challenges to which each distributed team member must adapt need to be recognized and understood by the team leader. Individuals are not seeking special considerations or accommodations for advancement. Instead, their interests are about equal opportunity for development and advancement. Leaders who can build interpersonal relationships anchored with empathy can positively influence career development. The use of technology to replace face-to-face interaction has distanced individuals on a social level; it is time for leaders of distributed teams to reestablish the human factor back into interpersonal relationships.
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Appendix A: Interview Protocol – Distributed Team Member

The demographic form submitted by each participant will help guide the researcher through the interview. Prior to beginning the interview, the researcher will explain the purpose of the study and redefine specific terms used in each section. Interview questions 1-16 are derived from research question RQ1. Interview questions 17-21 are derived from research questions RQ1a. Interview questions 22-31 are derived from research question RQ1b. Interview question 32 is open to allow the participant to expand upon their overall perceptions.

I. General Questions

1. What is it like for you being a member of a distributed team?

2. As an employee of a larger organization, does being on a distributed team make you feel disassociated from the organization? Explain

3. Do you feel distributed teams face challenges unique to the organization?

II. Organizational Teams

4. Describe the structure of your current team

5. What do you find to be challenges that affect communication on distributed teams?

6. How often do you communicate with your team leader?

7. How often do you communicate with other team members?

III. Leadership

8. Describe the leadership attributes of your team leader?

9. What attributes motivate you?

10. What attributes support career development?
11. What attributes hinder career development?

12. Does the team leader assign different team members to lead projects and share informal leadership roles?

13. Does your team leader recognize and encourage those who volunteer for informal roles?

14. Describe an informal leadership role you may have held?

15. How do informal roles contribute to career development?

16. Do you feel that your team leader listens and helps you achieve your goals? Explain.

IV. Technology

17. What form of technology do you prefer to use for distance communication? Why?

18. Do you believe technology such as live video can replace face-to-face interaction? Explain.

19. Do you think your team leader uses technology to its fullest?

20. Describe the pros and cons of using technology to communicate.

21. What would you change about the technology used and how distributed teams use it?

V. Career Development

22. What are your career aspirations?

23. What are the most important factors in your career development? Explain.

24. Have you proactively engaged your team leader by scheduling one-on-one time to talk about your career? Explain.

25. What is your team’s leader’s role in terms of your career
development?

26. Do you feel you are given the same considerations for career development as other team members? Why?

27. Do individuals on colocated teams have more opportunities for career development and advancement? Explain.

28. Are you satisfied with your current position and progress with your career development? Explain.

29. Do you consider a lateral move to another team (distributed or colocated) as career development? Why?

30. Does your team leader or someone outside your team formally mentor you?

31. Are you currently pursuing another position? Explain.

32. Is there anything else you want to add or expand upon that would be useful to aid those not familiar with distributed teams and the challenges each member faces?
Appendix B: E-mail Invitation to Join Interview

Dear ________________:

I am a doctoral candidate at Florida Institute of Technology, and I am conducting a research study as part of my doctoral dissertation. The study is titled: *Distributed Team E-leadership: A Phenomenological Inquiry into Subordinate Perceptions of Career Development*. The study will explore subordinate perceptions of leadership activities that support or hinder career development of members of distributed teams. As a distributed team member, your unique individual perspective positions you as an ideal candidate to be interviewed to understand the experiences you have every day.

Your company has been selected to participate and has allowed me to invite you, along with others from your organization, to take part in individual interviews to discuss your experience and perceptions of career development and being on a distributed team. Distributed teams are those that disperse the team’s members and create an expansive network of individuals that are geographically separated and cannot meet face-to-face with the team leader and other team members. Thus, distributed teams rely on advanced information technology to communicate daily to conduct routine tasks. The nature of this study is to understand your perspective of career development on distributed teams and the role leadership takes towards individual career growth. We will conduct the interview over the phone; that way, you and the other participants are using the same method of communication for consistency of the interview process.

The interview should last approximately 60 minutes and will consist of open-ended questions about teams, leadership, technology, and career development. I will ask you to complete a demographic form and sign a consent form prior to the interview. Each interview will be recorded and transcribed afterwards.
Your participation is highly valued, and you will be contributing to very important research that will benefit companies that deploy distributed teams and help identify gaps in the academic literature on leadership and individual career development. I would also like to assure you that your identity will remain confidential throughout this study and will not be published in the dissertation. The company, your team leader, and other members of your team will not know who participated. All of your personal data will be safeguarded and used strictly for this research and destroyed upon completion. If you have any questions or concerns, please do not hesitate to contact me as outlined below. I look forward to talking with you and appreciate your willingness to participate in this study.

Coby A. True
Doctoral Candidate
Florida Institute of Technology
150 W University Blvd
Melbourne FL 32901-6975
Phone: (850) 225-7733

ctrue2016@my.fit.edu
www.fit.edu
Appendix C: E-mail Confirmation Letter

Dear ________________:

Thank you for agreeing to participate in an individual interview as part of my dissertation titled: Distributed Team E-leadership: A Phenomenological Inquiry into Subordinate Perceptions of Career Development. This research will explore subordinate perceptions of leadership activities that support or hinder career development of members of distributed teams. As a distributed team member, your unique individual perspective positions you as an ideal candidate to be interviewed to understand the experiences you have every day.

This e-mail serves to confirm your interview scheduled for ____________ at ____________, using this number _________________. I anticipate that the interview will last approximately 60 minutes. I have also attached an Informed Consent Form and a Demographic Form. Please review, complete, and sign the forms, keep a copy of these forms for your records, and e-mail me a copy prior to the interview.

If you have any questions or concerns that you would like to discuss with me prior to our session, please feel free to contact me at any time. I can be reached at (850) 225-7733 or ctrue2016@my.fit.edu. You may also contact my dissertation committee chairperson, Dr. Darrel Sandall. He can be reached at (321) 674-7375 or dsandall@fit.edu.

Again, I value your participation and appreciate your willingness to be part of my study. I look forward to talking with you soon.

Coby A. True  
Doctoral Candidate  
Florida Institute of Technology  
150 W University Blvd  
Melbourne FL 32901-6975  
Phone: (850) 225-7733  
ctrue2016@my.fit.edu  
www.fit.edu

Florida Institute of Technology

High Tech with a Human Touch™
Appendix D: Demographic Form

Study Title: Distributed Team E-leadership: A Phenomenological Inquiry into Subordinate Perceptions of Career Development

The demographic form will provide the researcher with information about you, the participant. It will also collect specific information about your organization and team that will help guide the upcoming interview. You will also be given the opportunity to choose a pseudonym to be used to identify you as a participant in this study. Please provide all requested information.

I. Personal Information:

Title: (Please select one)

- Dr. ☐
- Mr. ☐
- Mrs. ☐
- Ms. ☐
- Miss ☐

Full Name: ___________________________________________________________

Preferred Mailing Address: ________________________________________________

Preferred Telephone Number: _____________________________________________

Preferred Email Address: _________________________________________________

Gender Identification: (Please select one)

- Male ☐
- Female ☐
- Prefer not to answer ☐

Marital Status: (Please select one)

- Married ☐
- Single ☐
- Divorced ☐
- Widowed ☐

Other ☐ ______________________________________________________________

Highest Level of Education Attained: (Please select one)

- High School ☐
- Associate’s ☐
- Bachelor’s ☐
- Master’s ☐

Doctorate ☐

Other ☐ ______________________________________________________________
II. Organization and Team Information:

How long have you worked for your current employer: _____ Years / _____ Months

How long have you been in your current position? _____ Years / _____ Months

How long have you been on your current team? _____ Years / _____ Months

*A distributed team is one that has each team member geographically separated, where colocated teams are at the same location*

Is this the only team (distributed or colocated) that you have been on with your current employer?

If no, how many different teams? _____ Distributed / _____ Colocated

How many different leaders have you had with your current employer? _____

If you have been on multiple teams, how many different leaders have you had on your current team? _____

Are you assigned within the continental US?

Is your team leader based in the same country as you?

What are the different forms of technology (software and hardware) your company uses?

________________________________________________________________________

Did you receive any formal training on the technology listed?

III. Pseudonym

In the space below, a pseudonym has been assigned for confidentiality purposes. Your name will not be used in this study.

Pseudonym: ____________________________________________

Participant Signature: ____________________________
Appendix E: Informed Consent

Informed Consent

Please read this consent document carefully before you decide to participate in this study. The researcher will answer any questions before you sign this form.

Study Title: Distributed Team E-leadership: A Phenomenological Inquiry into Subordinate Perceptions of Career Development

I __________________________, agree to participate in the research study being conducted by Coby A. True under the direction of Dr. Darrel Sandall.

Purpose of the Study: You are being asked to take part in this study because you are a member of a distributed team. Your personal experiences on a distributed team, your perceptions of how leadership can affect career development, and how technology is used to communicate will greatly enhance this research project.

The purpose of this study is to explore subordinate perceptions of leadership activities that support or hinder career development of members of distributed teams.

Your interview will be conducting over the phone, we will use the following number __________________ at __________ (time) on __________________ (date).

If you volunteer to participate in a follow-up interview, I will contact you to set up a mutually convenient time and date.

Procedures: If you choose to take part in this study, this is what will happen:

- I will send you a confirmation e-mail to confirm the agreed-upon date, time, and phone number listed above
- On the day of the interview, we will dial into the number at the agreed-upon time
- You will participate in the approximately 60-minute-long interview on the designated date and time. You will be asked a series of questions regarding your experience being on a distributed team, your perceptions of leadership, your perceptions about career development, and how you feel about advancement opportunities within your organization
• The interview will be recorded, and I will take handwritten notes during the session
• You will be given the opportunity to volunteer to review the transcript of your session and participate in a follow-up personal interview to discuss the findings and explore your input and ideas more deeply
• The final analysis will be conducted, and the results and findings will be formally written into my dissertation
• Upon request, I will send you a copy of the results of the findings after the analysis has been conducted and the conclusions have been written into the dissertation
• The total amount of time you will spend in connection with this study is approximately 60 minutes for the initial interview, one hour to review your portion of the transcript, and 30 to 45 minutes for the follow-up interview, for a total of up to 2.75 hours
• There is no compensation or compensatory benefits associated with participation in this study

**Potential Risks of Participating:** There are no physical risks associated with this study. There is, however, a risk of loss of confidentiality. I will make every effort to keep your information strictly confidential; however, this cannot be guaranteed. Also, you may find that some of the questions asked as part of this study may raise sensitive issues for you, resulting in mild emotional discomfort. You may refuse to answer any of the questions asked, and you may take a break at any time during the study, both during the initial and follow-up interviews, if you choose to participate. In addition, you may withdraw from this study at any time without negative consequences.

**Potential Benefits of Participating:** Taking part in this research will not assist you directly; however, you may benefit from:

• The opportunity to reflect on your experiences within your organization
• The opportunity to provide guidance to future leaders
• The opportunity to provide guidance for human resources departments in the future

The findings will contribute to the existing literature on e-leadership and distributed teams by focusing on the literature gap relating to career development.

Organizations will find this information useful to determine if they are deploying the right methods to keep distributed team members connected and whether career development plans are meeting the needs of the organization and the individual.
Confidentiality: Your identity will remain confidential throughout this study and will not be published in the dissertation. The company, your team leader, and other members of your team will not know who participated. If the results of this research study are published in journals or at higher education meetings, none of the participants will be named or identified. You may be quoted using a pseudonym in published materials, without reference to any possible identifying information such as your company name or location.

During the interview, the participants will not be referred to by name, nor will the interviewer refer to the name of the participant's leader, team, or company. The participants will be reminded to not refer to their leader, team, or company by name. If during the interview, the participant, leader, team, or company is named, these references will be redacted in the transcripts to remove any identifying information.

Florida Tech will not release any information about your research involvement without your written permission unless required by law. All your personal data will be safeguarded and used strictly for this research and destroyed upon completion.

Voluntary participation: Your participation in this study is completely voluntary. There is no penalty for not participating. You may also refuse to answer any of the questions we ask you.

Right to withdraw from the study: You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study:
Dissertation Committee Chair: Dr. Darrel Sandall
Telephone Number: (321) 674-7375
Principal Investigator: Coby A. True
Telephone Number: (850) 225-7733

Whom to contact about your rights as a research participant in the study:
Dr. Lisa Steelman, IRB Chairperson
150 West University Blvd.
Melbourne, FL 32901
Email: lsteelma@fit.edu Phone: 321.674.8104

Agreement: The Institutional Review Board of Florida Institute of Technology, at telephone number (321) 674-8960, can provide further information about your rights as a research participant. Further information regarding this study may be
obtained by contacting Dr. Darrel Sandall, dissertation committee chairperson, at (321) 674-7375 or Coby A. True, principal investigator and student researcher, at (850) 225-7388.

- Please keep a copy of this document for your files

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description. If you agree to participate in this study, please sign below:

Participant: ___________________________ Date: ________________

Principal Investigator: ___________________ Date: ________________
Appendix F: Institutional Review Board Approval

Notice of Exempt Review Status
Certificate of Clearance for Human Participants Research

Principal Investigator: Coby Andrew True
Date: January 24, 2019
IRB Number: 19-003
Study Title: Distributed Team E-leadership: A Phenomenological Inquiry Into Subordinate Perceptions of Career Development

Your research protocol was reviewed and approved by the IRB Chairperson. Per federal regulations, 45 CFR 46.101, your study has been determined to be minimal risk for human subjects and exempt from 45 CFR 46 federal regulations. The Exempt determination is valid indefinitely. Substantive changes to the approved exempt research must be requested and approved prior to their initiation. Investigators may request proposed changes by submitting a Revision Request form found on the IRB website.

Acceptance of this study is based on your agreement to abide by the policies and procedures of Florida Institute of Technology’s Human Research Protection Program (http://web2.fit.edu/erm/irb/) and does not replace any other approvals that may be required.

All data, which may include signed consent form documents, must be retained in a secure location for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Access to data is limited to authorized individuals listed as key study personnel.

The category for which exempt status has been determined for this protocol is as follows:

2. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior so long as confidentiality is maintained.
   a. Information is recorded in such a manner that the subject cannot be identified, directly or through identifiers linked to the participant and/or
   b. Subject’s responses, if known outside the research would not reasonably place the subject at risk of criminal or civil liability or be damaging to the subject’s financial standing, employability, or reputation.
Appendix G: Approval to Access Participants

Coby True dissertation study participation

To: Coby True <cttrue2016@my.fit.edu>

Sun, Mar 3, 2019 at 1:32 PM

Good afternoon Coby,

Per our conversation, I agree to your using the [REDACTED] team for your dissertation as long as there are no employee names published in the paper. Thank you for the chat and I look forward to reading the paper.

Thanks,

Best regards,