

MENTORING RELATIONSHIPS AMONG WOMEN LEADERS

by

Gayle F. Elliott

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

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Liberty University, School of Business

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### **Abstract**

This qualitative research collective case study explored the mentoring relationships among veteran women leaders and novice women leaders in the nuclear vendor industry in Central Virginia. The general problem addressed in this study was the potential lack of mentoring relationships among women leaders despite the many advantages of mentoring. The purpose of this qualitative collective case study was to add to the body of knowledge of the lack of mentoring relationships among women leaders in a technical industry by exploring the mentoring experiences, or lack thereof, and the perception of women on mentoring who are or have been in leadership positions. Research questions explored the mentoring experiences and the perception of women on mentoring who are or have been in leadership positions. Twelve interviews were conducted using convenience sampling. Seven common themes emerged from the data analysis. The themes developed from this study are relevant and applicable to business because the advantages of mentoring relationships between women leaders include enhanced business and organizational success, and improved leadership competence. Based on the emergent themes and review of the academic literature, five recommendations for action were developed to aid in the assurance that businesses and organizational veteran leaders ascertain the importance of mentoring relationships among women leaders.

*Keywords:* mentor, novice, relationship, veteran, mentoring, knowledge sharing

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### **Dedication**

This work is dedicated to my husband, Mike, who encouraged me to pursue my dreams of a higher education. My thought was that we would pursue this dream together and celebrate the accomplishment together. Unfortunately, he was taken from this world one week before I was to begin my very first class in the doctorate program. Losing him at what I consider a young age confirmed how very short our lives can be and how we must attack life with exuberance and enthusiasm for each day given to us. While knowing he would never choose this life again now that he has seen what lies before all of us, this work is dedicated to him with confidence that he would have been so proud to travel this path with me had he been allowed.

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### **Section 1: Foundation of the Study**

One of the challenges facing organizations is motivating employees to impart their knowledge with fellow employees who do not have the same experience and background as themselves (Curtis & Taylor, 2018). Knowledge is a significant organizational resource that leads to greater company innovation competence making it one of the most vital resources for competitive advantage in an organization (Curtis & Taylor, 2018). Knowledge that is lost due to an aging workforce, as well as more mobile staff, is a significant hazard to the knowledge-centered organizations' prolonged achievement and sustainability (Lunsford, 2016). Likewise, the creation and use of contemporary knowledge are also critical to the endurance of virtually all businesses (Lunsford, 2016). Knowledge sharing, or mentoring, is the willingness of employees in the workforce to share their knowledge and experiences with other staff to leverage the skills of other members of the staff (O'Brien, 2019). This qualitative research collective case study will explore the mentoring relationships, and lack thereof, among women leaders employed at local nuclear vendor facilities. Mentoring has proven to provide many advantages which include enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016).

#### **Background of the Problem**

Being awarded a leadership position in a technical organization can be a challenging endeavor, especially if the individual awarded the position has never been in a leadership position (Nelson, 2015). If corporations are going to be successful, the proper support and professional development necessary to assure the success of their leaders must be provided (Nelson, 2015). If proper support is not provided to novice leaders, the result is a leader and an organization that does not reach its maximum potential (Nelson, 2015). Mentoring is one of the most effective means of helping novice leaders achieve optimum performance, leadership

competence, and organizational success (MacLennan, 2017). Mentoring helps assure novice leaders obtain important information, learn the processes of how an organization works, and obtain necessary appraisal and feedback. Successful mentors utilize their experience, knowledge, and achievements to aid the novice leader to grow and succeed in their position while obtaining advice and guidance of the senior leader (MacLennan, 2017).

In many businesses today, less than half of novice women leaders seek out senior women leaders as mentors. There is less than 44% of instances of women leaders enlisting in a mentor relationship with other women in leadership positions even though mentor relationships improve the success of leaders and help assure organizational growth and improvement (Hume, 2016). However, while 45% of firms in the accounting industry use mentors for building and developing leaders, generally less than 21% of the leaders are women and only 9% of these women utilize mentors to help them succeed in their leadership roles (O'Bannon, 2018). A survey performed by Tolar (2012) of women participating in a leadership development program in the business sector determined that only 55% of the novice leaders participating in the survey utilized a mentor to help in their leadership development process. Those who did participate in the mentoring process declared mentoring as a significant factor in their growth process (Tolar, 2012). As stated by a majority of the novice women leaders in the survey who were mentored in their development, mentoring provided encouragement and the opportunity to work with someone who had the novice leaders' best interests as a high priority (Tolar, 2012).

Mentoring by veteran women leaders also has the benefit of aiding in the instilling of teamwork (Diehl & Dzubinski, 2016). Mentoring by veteran women leaders also provides the benefit of participating in and providing input in changes that are necessary for the novice leader to obtain organizational success (Diehl & Dzubinski, 2016). In another study, a higher education

woman executive who was a veteran leader stated that having a mentor in her novice years would have been a welcome addition to her development (Corbell, 2016). This veteran leader stated that having another woman leader to voice concerns to and who could be objective and provide input and insights into how certain issues could be handled differently, would have enhanced her development in a positive manner (Corbell, 2016). Notwithstanding the profusion of educated and qualified women in the workplace, women continue to be underrepresented as mentors at the top of leadership hierarchies (Corbell, 2016).

In certain business sectors, men still outnumber women in high leadership positions (Dzubinski, 2014). General-role stereotypes still occur in many businesses, such as in evangelical missions and highly technical businesses (Dzubinski, 2014). While there have been repeated demands for greater diversity, there are certain businesses and organizations that still embrace a worldview that tends to favor men in positions of leadership (Dzubinski, 2014). According to Corbell (2016), having veteran women leaders mentor novice women leaders, specifically in businesses with general-role stereotypes, provides the boost novice women leaders need to change the status quo. When veteran women leaders mentor novice women leaders, the veteran leader provides a wider perspective and helpful information on how novice women leaders can advance in a predominantly male sector (Corbell, 2016).

The focus of this study is on the business problem of the lack of mentoring relationships among women leaders despite the many advantages of a mentoring relationship with a senior woman leader (Alvarez & Lazzari, 2016). Advantages of a mentoring relationship include enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016). The use of mentorship in businesses also improves the self-confidence, communication skills, and problem-solving skills of novice leaders (Jakubik, 2015). Mentoring

also provides the benefits of protection and security for the mentee (Jakubik, Eliades, Weese, & Huth, 2016). This qualitative study will explore why a majority of novice women are not engaged in a mentoring relationship with veteran woman leaders when there are studies that show a mentoring relationship enhances business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016).

### **Problem Statement**

The general problem to be addressed in this qualitative study is the lack of mentoring relationships among women leaders despite the many advantages of a mentoring relationship which include enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016). Novice women leaders in mentor relationships with veteran women leaders occur in less than 44% of instances (Hume, 2016). Mentor relationships improve the success of leaders and help assure organizational growth and improvement (Hume, 2016). O'Bannon (2018) states that while 45% of firms in one industry use mentors for building leaders, less than 21% of the leaders are women. Additionally, only 9% of these women utilize mentors to help them succeed in their leadership roles (O'Bannon, 2018). There is a massive disparity in research regarding the number of novice women leaders who have mentoring opportunities with veteran women leaders (Valentine, 2018). This gap also exists in the literature surrounding the development and experiences of women leaders, both novice and veteran, through the use of mentoring with other women leaders (Rollins, 2017).

The specific problem to be addressed is that women are entering into leadership positions in the nuclear vendor industry in Central Virginia without the influence of mentorship by other senior women leaders (Diehl & Dzubinski, 2016). Mentorship helps novice leaders make better decisions and take better actions than what they may have taken without a mentor (Diehl & Dzubinski, 2016). Unfortunately, mentoring is often not sought out because it is not available as

part of the leadership development program or because veteran women leaders are not available to the novice leaders (Diehl & Dzubinski, 2016). Women leaders are scarce in many businesses, in part because of gender-role stereotypes (Dzubinski, 2014). This creates a barrier that limits novice women leaders' ability to be successful in their leadership position (Diehl & Dzubinski, 2016).

### **Purpose Statement**

The purpose of this qualitative collective case study is to add to the body of knowledge of the lack of mentoring relationships among women leaders in a technical industry by exploring the mentoring experiences, or lack thereof, and the perception of women on mentoring who are or have been in leadership positions. The collective case study will provide an extensive analysis of the mentoring relationships and the effect mentoring has on enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016). The collective case study will also provide an analysis of the lack of mentoring relationships among novice women leaders and the effect that the lack of mentoring has on business and organizational success and leadership competence (Alvarez & Lazzari, 2016). The larger problem is explored through a collective case study of mentoring activities in the workplace. The collective case study will explore an in-depth study of women leaders, both novice and veteran, and the effect mentoring, or lack thereof, may have affected their success, growth, and leadership development in the nuclear vendor industry in Central Virginia. The collective case study will also explore the perception that senior women leaders who mentor novice women leaders contribute to the novice leader's self-confidence, communication skills, and problem-solving skills (Jakubik, 2015).

### **Nature of the Study**

This qualitative research will consist of a collective case study. The collective case study is appropriate because this will allow information to be obtained from the experiences and perspectives of women leaders and how mentoring has affected their success, growth, and leadership development in the nuclear vendor industry (Creswell & Poth, 2018). Women leaders that will be involved in this study will be utilized to explore their perceptions and experiences with mentoring relationships with other women leaders (Creswell & Poth, 2018). For women leaders who do not have experiences with mentoring, the collective case study will allow information to be obtained on why mentoring was not utilized and how lack of mentoring may have affected their success, growth, and leadership development in the nuclear vendor industry. This qualitative research collective case study will be used to explore areas of women on women mentoring that have not been sufficiently explored in recent years.

**Discussion of Method.** Three research methods were considered for the research topic. These research methods include qualitative, quantitative, and mixed research methods. Qualitative research explores individual experiences, intuition, and skepticism to help refine the research topic (Klenke, 2015). This method of research relies primarily on individual perception and understanding based on their individual life experiences (Klenke, 2015). Qualitative research techniques seek to address the views of key individuals on a focused topic to understand a specific condition through the experiences and occurrences of personal perspectives (Hammarberg, Kirkman, & de Lacey, 2016). House (2018) states that the basic function of the qualitative research method is to understand human behavior. Understanding human behavior implies identification and compassion with the key participants (House, 2018). The qualitative research method is the best method for this research topic because the method will allow information to be obtained from the experiences and perspectives of women leaders and how

mentoring has affected their success, growth, and leadership development in the nuclear vendor industry.

Quantitative research is heavily dependent on linear qualities, measurements and statistical analyses (Klenke, 2015). House (2018) states that the primary purpose of quantitative research is to explain human behavior. Explaining human behavior requires the development of generalizable consistencies and rules and reduces the participants and their responses to specifiable conditions and standardized data collection (House, 2018). The quantitative research process is initiated with a problem statement and generation of a hypothesis which, upon completion of the research, should result in replicable and generic results that can be applied to a population (Apuke, 2017). The quantitative research method was not chosen for this research topic because perceptions and sensitivities cannot be accurately explained with analytical data.

Mixed research methods include the combined use of both qualitative and quantitative research methods. Mixed research methods have been used to work collectively to facilitate professional data development from an interpersonal perspective (Alavi, Archibald, McMaster, Lopez, & Cleary, 2018). Schoonenboom (2018) states that mixed methods are used to potentially answer two complementary research questions and generalize the theses to the same population or to address the same research question and compare the results from the mixed methods. Mixed research methods may consist of two elements: interviews among a small sample of key participants, and a random sample from an entire population (Schoonenboom, 2018). Mixed research methods were not used for this research topic because the study will rely exclusively on the perceptions and sensitivities of a small sample of key participants rather than random samples from an entire population. However, the mixed research method may be used in the future as more data is gathered to include the quantitative research method.

**Discussion of design.** The qualitative research method consists of five distinctive designs which comprise the narrative research design, the phenomenology research design, grounded theory research design, ethnography research design, and the case study research design (Creswell & Poth, 2018). The narrative research design of qualitative research is a narrative or description of an occurrence or phenomenon of an individual or an inconsequential number of individuals. This research design may be written description or an oral discussion of a series of special events in successive order. The importance of the narrative design is the experience, event or phenomenon is regarding and by what means the story is told. The narrative research design uses observations, interviews, pictures, and documentation to provide the emphasis or basis of the event or experience (Creswell & Poth, 2018).

There are four types of narrative designs: first, the biographical study; second, autoethnography; third, oral history, and lastly, life history (Creswell & Poth, 2018). The biographical study is an exploration of the experiences and events of an individual's life (Creswell & Poth, 2018). Autoethnography is the account and experiences of the individual who is the focus of the narrative (Creswell & Poth, 2018). The life history research design is a depiction of a person's life (Creswell & Poth, 2018). Lastly, the oral history narrative research design is the collection of events, experiences, and accounts from one or even more individuals with the primary focus on a specific premise or social justice (Creswell & Poth, 2018). The narrative research design is appropriate for use when experiences of one or more individuals are the subject of exploration and documentation (Creswell & Poth, 2018). For example, Corner, Singh, and Pavlovich (2017) assert that the history of civilization is iterated in stories: victorious heroes, endearing love, love lost, allegories of life lessons, etc.

One challenge that may be encountered during the use of the narrative design is that a thorough account of experiences, events, or phenomena may necessitate the collection of immense information that is required to be obtained over an extensive amount of time (Creswell & Poth, 2018). Another challenge that may be confronted with the narrative research design is that the person providing the information for the narrative may present biases in their retelling of the story or experiences. The narrative research design often replicates the culture of the narrator. The disparities in culture often reveal diverse, culturally-based narrations of the experiences, events, or phenomenon (Rooney, Lawlor, & Rohan, 2016). The narrative research design was not chosen for this research topic because it is not appropriate for the topic. There is no need for detailed accounts or sequential accounts of the research questions for this research topic (Rooney et al., 2016).

The phenomenological research design of qualitative research is a description of an event that is shared by numerous individuals of an event, experience or of a specific phenomenon (Creswell & Poth, 2018). Researchers who use this phenomenological design concentrate on portraying the shared and collective events of the numerous individuals that have experienced the event or phenomenon (Creswell & Poth, 2018). The primary purpose of phenomenology is to abridge the individual experiences of an event or phenomenon to a representation of a principle or opinion that can be described generically (Creswell & Poth, 2018). Using the phenomenological approach, researchers will “bracket” themselves out of the research by presenting their own experiences with the event or phenomenon (Creswell & Poth, 2018). This allows the researcher to characterize their own experiences with the event or phenomenon and to set their characterization aside to allow focus on the research study group and their group’s experiences (Creswell & Poth, 2018).

Phenomenological research design is a method that contains many predominant philosophical fundamentals that can be a challenge for the novice researcher (Creswell & Poth, 2018). One primary challenge of this research design is the consideration and understanding of the philosophical range and the empirical methods (Creswell & Poth, 2018). The researcher must be able to determine the aspects of the research to be accomplished using this design (Creswell & Poth, 2018). Phenomenological methods are often differentiated by the extent that the researcher can accomplish the objectives of the phenomenon and objectively interpret the experiences of the research group (Wilson, A., 2015). The phenomenological research design was not chosen for this research topic because not all key individuals that will be interviewed in the research will have the same experiences with mentoring, i.e., not all interviewees will share the same specific phenomenon (Wilson, A., 2015).

The grounded theory research design may be used to construct or determine a concept for an act or a specific practice (Creswell & Poth, 2018). Grounded theory has its name because the formation of a theory is created or “grounded” by the material provided by the participants that are encompassed in the research (Creswell & Poth, 2018). This group of individuals has the background and experience in the study or theory, which is being explored (2018). The grounded theory research design has five significant attributes (Creswell & Poth, 2018). The first attribute of the grounded theory research design identifies an act or practice that the researcher is planning to explore (Creswell & Poth, 2018). The second attribute of the grounded theory research design is the development of a theory on the act or practice that is being explored (Creswell & Poth, 2018). The third significant attribute of the grounded theory research design is the practice of “memoing” (Creswell & Poth, 2018). This occurs when the researcher records

ideas as the data are being gathered to initiate a theory that may be behind the action or process (Creswell & Poth, 2018).

Another attribute that is significant to the grounded theory research design is the process of interviewing the participants which become the principal form of collection of the data (Creswell & Poth, 2018). The interview process is first comprised of an initial group of participants, or interviewees (Creswell & Poth, 2018). The interview process continues with interviews with a different group of participants (Creswell & Poth, 2018). The process of interviewing continues until the greatest parts of the gaps are satisfied and there is enough information provided from the interview process to develop a theory (Creswell & Poth, 2018). The fifth attribute of this research design is the employment of procedures that are developed and structured to identify patterns of a grouping (Creswell & Poth, 2018). At this point in the process, the researcher delves further into even more groupings (Creswell & Poth, 2018). The crossing of these groupings is the grounds for development of the theory that is presented as hypotheses, or as a diagram, or as an argument (Creswell & Poth, 2018). This theory is suitable for use when emphasizing the experiences that are shared amongst a collection of individuals (Creswell & Poth, 2018). An example of suitable use of this research design is in the detailing and discussion of the experiences of people who have suffered a specific disease or cancer (Creswell & Poth, 2018). The grounded theory research design was not chosen for this research topic because the generation or discovery of a process or action is not the purpose of this research topic.

The ethnographic research design of qualitative research is the study of a sizeable group of individuals that have similar behaviors, beliefs, and languages (Creswell & Poth, 2018). This research design involves observations of large culture-sharing groups over a prolonged period

(Creswell & Poth, 2018). The observations are typically obtained through observations with the participants where the researcher is absorbed in the daily events of the group that is being researched (Creswell & Poth, 2018). A foremost feature of this research design is the underscoring of a whole culture of people with the primary focus on the social conducts of the group (Creswell & Poth, 2018). Using this research design, the researcher explores the rituals of the group, the social behaviors, and the consistencies or patterns of the social complexities of the group (Creswell & Poth, 2018).

The primary purpose for using this research design is to explore a specific group's functions on a routine basis (Creswell & Poth, 2018). This research design is appropriate for use when developing a theory about a group of people that share the same culture (Creswell & Poth, 2018). The challenges of this research design are that the researcher must have an understanding of cultural anthropology and the social-cultural system and the extensive time that it takes the researcher to obtain observations of the specific culture (Creswell & Poth, 2018). The ethnographic research design was not chosen for this research topic because the emphasis of the research is not on the social behaviors of a specific group of culture-sharing individuals (Creswell & Poth, 2018).

The case study research design involves research of a circumstance or event in an actual real-life setting (Creswell & Poth, 2018). The circumstance or event case could include an individual, a group, an organization, a partnership, a decision-making process, or even a specific project (Creswell & Poth, 2018). The case study design seeks to "bound" a particular time and/or place (Creswell & Poth, 2018). Creswell and Poth (2018) state that this research design involves a researcher exploring a real-life event by obtaining information using observations and the use of interviews. The case study research design may be made up of a single event or

multiple events, or cases (Creswell & Poth, 2018). Ridder (2017) states it is essential for the researcher using this research design to utilize and obtain numerous perspectives to help assure that the study is comprehensive and that there are adequate engagements from the test group. It is appropriate to use this research design to study a specific experience in detail; specifically, an experience or occurrence which is unknown and little understood (Ridder, 2017). A collective case study was chosen for this research topic because a gap exists that needs to be explored regarding the lack of mentoring relationships among women leaders despite the many advantages of a mentoring relationship which include enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016).

**Summary of the nature of the study.** This qualitative research will consist of a collective case study. This is appropriate because the information obtained will be from the experiences and perspectives of women leaders and how mentoring has affected their success, growth, and leadership development in the nuclear vendor industry. The relationships, perceptions, and experiences of the women leaders in mentoring with other women leaders will be explored. The benefits and challenges of veteran women leaders mentoring novice women leaders will also be explored. For women leaders who do not have experiences with mentoring, the collective case study will allow information to be obtained on how the lack of mentoring potentially affected their success, growth, and leadership development in the nuclear vendor industry.

### **Research Questions**

The research questions that will guide this analysis are:

RQ1: What role does mentorship by senior women leaders play in the success, growth and leadership development of novice women leaders in the nuclear vendor industry in Central Virginia and do you find it difficult to find such mentors?

RQ2: Why do novice women leaders choose to be mentored by other senior women leaders?

These research questions address the support and influence that senior women leader-mentors provide to novice women leaders in their leadership development. These questions will also address the role that the presence, or lack thereof, of senior women leader mentors for novice women leaders play in the development of their leadership. Likewise, the challenges encountered during mentoring are addressed. Additionally, these research questions will address the selection of veteran women leaders by novice women leaders for mentoring. Finally, the research questions will explore those novice women leaders who do not choose to be mentored by veteran women leaders.

### **Conceptual Framework**

The literature review identified various theories and approaches to mentoring with research analyses exploring a variety of aspects of the theories (Diehl & Dzubinski, 2016). These aspects included the impacts of the various approaches to mentorship (Diehl & Dzubinski, 2016). The literature review on mentoring relationships identified mentoring theories, practices, mentoring program qualities, and outcomes of the mentoring relationships (Diehl & Dzubinski, 2016). There is a gap, however, of research that has not examined the relational process between novice women leaders and veteran women leaders that underlie the mentoring relationships and determine why some mentoring relationships are successful and why some mentoring relationships are either unsuccessful or never occur (Diehl & Dzubinski, 2016). One of the objectives of this study is to determine the role mentorship by senior women leaders play in the success, growth and leadership development of novice women leaders in the nuclear vendor industry in Central Virginia (Diehl & Dzubinski, 2016). The second objective is to determine why some novice women leaders choose to be mentored by veteran women leaders while others

do not (Diehl & Dzubinski, 2016). A conceptual view of this research indicated mentoring enactment theory, self-determination theory, and motive disposition theory are applicable to address the research questions of this qualitative study.

**Mentoring enactment theory.** Mentoring enactment theory suggests that individuals engaging in mentoring relationships have similar perceptions of the relational behaviors that are prevalent to initiate and maintain a successful mentoring relationship (Mansson & Myers, 2012). These relational behaviors include appreciation, safety, tasks, courtesy, wit, and goals (Mansson & Myers, 2012). The mentoring enactment theory also suggests that mentors are more biased to invest in and to participate in a mentoring relationship if there is apparent reciprocity and the mentor will gain as much from the relationship as the mentee (Snoeren, Raaijmakers, Neissen, & Abma, 2015). This necessitates that the mentor will have a career and personal gain from the mentoring relationship as will the mentee (Snoeren et al., 2015). Figure 1 illustrates the association of relational benefits and the results of mentoring versus the lack of benefits and lack of results of non-relational and lack of participation of mentorship by novice women leaders.

During the initial stages of a mentoring relationship, called the initiation stage, the novice leader begins to have high regard and respect for the veteran leader as the novice leader is witness to the veteran leader's competence and proficiency for guiding and supporting the novice leader (Mansson & Myers, 2012). Guidance and support are two highly expected mentoring functions from the viewpoint of the mentor as well as the mentee (Mansson & Myers, 2012). Relational maintenance behaviors are the expectation in a successful mentoring relationship as suggested by the mentoring enactment theory (Mansson & Myers, 2012). Curtis and Taylor (2018) added that the mentoring enactment theory suggests that veteran leaders, the mentors, may not automatically accept a novice leader initially but rather accept the novice leader after a

series of interactions and the establishment of a relationship at which time the veteran leader determines that the novice leader is or is not worthy of the resources and time necessary to build and maintain a successful mentoring relationship (Curtis & Taylor, 2018). Without the establishment of consistent perceptions of the relational behaviors by both the mentor and the mentee, a successful mentoring relationship between a veteran woman leader and a novice woman leader may not be possible (Curtis & Taylor, 2018). This is a potential explanation of why mentoring relationships are not explored or are explored but are not deemed successful between veteran and novice women leaders (Curtis & Taylor, 2018).

Kenny, Blustein, and Meerkins (2018) state that veteran leaders may create a series of relational challenges for the novice leaders to determine initial performance and relational perceptions of the novice leaders before determining that the mentoring relationship will be successful and beneficial to both participants. In this scenario, the veteran leader is searching for mutual satisfaction and relational effectiveness before devoting time and resources to the novice leader (Kenny et al., 2018). Snoeren et al., (2016) further state that the author of the mentoring enactment theory understood that successful mentorship relied on personal relationships between the veteran leader and the novice leader. The mentor relationship cannot, however, become stagnant or cross over boundaries that have not been discussed (Snoeren et al., 2016). Expectations between the novice leader and the veteran leader must be identified and communicated for the mentoring relationship to be successful initially and into the future (Snoeren et al., 2016).

An anticipated theme of this qualitative study is that mentoring relationships among women leaders provide many advantages. One of the advantages of mentoring is leadership development which will enhance business and organizational success, and improve leadership

competence (Alvarez & Lazzari, 2016). For a mentoring relationship to be successful, relational benefits must be evident. Specifically, there are two relational benefits identified in the mentoring enactment theory that must exist for both mentor and mentee for a successful relationship. These two relational benefits include appreciation and goals (Mansson & Myers, 2012). For a mentee's leadership development to be effective, the mentee must feel appreciated and welcome by her mentor and must be provided goals to work towards. Alternately, the mentor must feel appreciated by her mentee to be an effective mentor in the development of the novice leader and to be willing to invest in the mentee's leadership development.

**Self-determination theory.** Self-determination theory is a theory of social motivation which states that all humans have three rudimentary psychological needs (Larsson, Pettersson, Eriksson, & Skoog, 2016). While these needs vary in extent from individual to individual, this theory suggests that all individuals need autonomy, competence, and relatedness to a certain degree (Larsson et al., 2016). These three needs promote inclination among individuals to explore and participate in situations that are expected to nurture their emotional needs (Larsson, et al., 2016). Individuals who are highly autonomous and competent demonstrate exceptional work performance and are excellent candidates for mentoring (Howard, Gagne, Morin, & Broeck, 2016). Alternately, individuals who are amotivated and lack significant competence in their areas of expertise lack motivation and are typically lower performance workers (Howard et al., 2016). These individuals are not typically chosen as candidates for mentoring (Howard et al., 2016). Figure 1 illustrates the association of autonomy, competence, and relatedness to the benefits and the results of veteran women leaders mentoring novice women leaders.

The self-determination theory suggests that individuals are motivated by intrinsic and extrinsic types of motivation which affects the performance and success of each individual

within the organization (Howard et al., 2016). Intrinsic motivation is the desire of an individual to perform their work tasks for their satisfaction and pleasure (Kuvaas, Buch, Weibel, Dysvik, & Nerstad, 2017). Extrinsic motivation is the desire of an individual to perform their work tasks for monetary or other tangible incentives (Kuvaas et al., 2017). According to the self-determination theory, extrinsic motivation is negatively related to intrinsic motivation (Kuvaas et al., 2017). Also, according to the self-determination theory, strengthening extrinsic motivation will undermine intrinsic motivation (Kuvaas et al., 2017). Thus, according to the self-determination theory, an intrinsically motivated individual is better suited as a mentee for career and personal development (Kuvaas et al., 2017).

**Motive disposition theory.** Motive disposition theory uses the concept of individual needs to explain individual motivation, behavior, and personality (Schüler, Baumann, Chasiotis, Bender, & Baum, 2018). This theory overlaps greatly with the self-determination theory concerning the nature and motivational differences in individuals (Schüler et al., 2018). One of the largest differences between the two theories is the motive disposition theory concept of inherent motives as longings that are acquired through social connections (Schüler et al., 2018). The motive disposition theory presumes that individuals acquire implicit motive dispositions by learning them in early childhood (Schüler et al., 2018). In later years, implicit achievement motivated individuals to prefer tasks that allow them to strive for standards of excellence to feel competent and successful (Schüler et al., 2018). In the context of mentoring relationships, understanding the implicit motive dispositions of a mentee encourages positive results in the relationship between the mentor and the mentee (Cray, 2016).

An additional anticipated theme of this qualitative study is that novice women leaders participate in mentoring relationships with veteran women leaders as personal fulfillment and

investment in their careers. The desire of a mentee to participate in a mentoring relationship to fulfill a motivational need to succeed in their leadership role is called intrinsic motivation. As stated above, intrinsic motivation is the desire of an individual to perform for their satisfaction and pleasure (Kuvaas et al., 2017). When novice women leaders participate in mentoring relationships, the time and effort placed in the relationships are for their development and success, and not specifically for monetary or other tangible rewards (Kuvaas et al., 2017). This is consistent with the self-determination theory and motive disposition theory that suggests that individuals are motivated by both intrinsic and extrinsic types of motivation (Howard et al., 2016). However, an individual who is intrinsically motivated is much better suited for a mentoring relationship for both career and personal development (Kuvaas et al., 2017).

**Discussion of the relationships between the concepts.** Self-determination theory and Motive Disposition theory are similar to each other (Schüler et al., 2018). Some psychologists have stated that if not for a few basic dissimilarities, the two theories could be melded into one (Schüler et al., 2018). The similarities of these theories include the importance of human needs for motivation, the effects of the need satisfaction on well-being, the assumption that all individuals have a limited number of critical needs, and overlap of the achievement/competence needs and the affiliation/social relatedness needs (Schüler et al., 2018). While these two theories delineate psychological essentials differently, they both address the topics in a related fashion (Sheldon & Prentice, 2019). For example, according to the self-determination theory, the need for competence involves the significance of an individual experiencing himself as a capable and effective individual in dealing with his environment (Sheldon & Prentice, 2019). According to the motive disposition theory, the need for achievement for an individual involves the continual

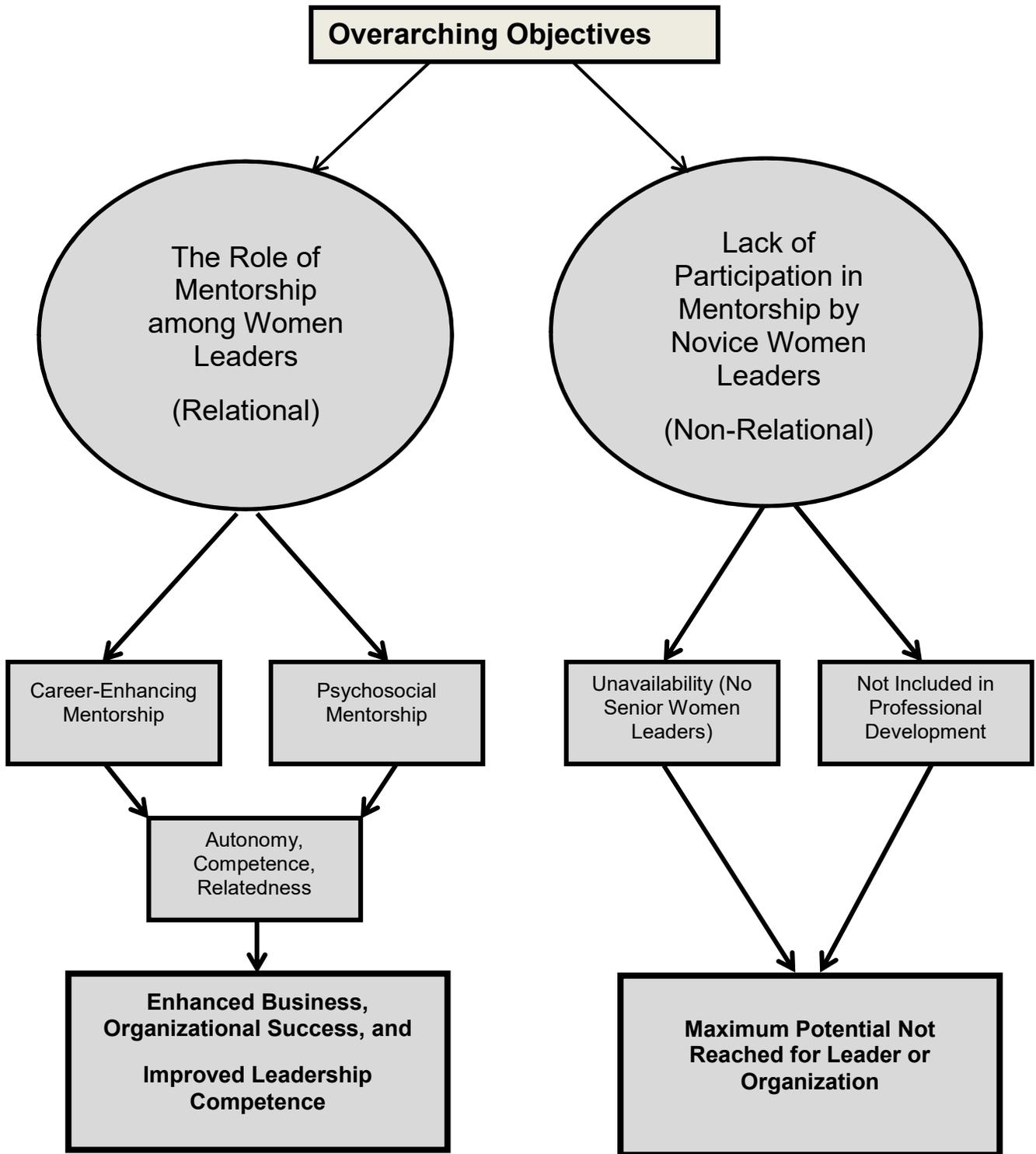
desire to improve while successfully interacting with his environment (Sheldon & Prentice, 2019).

One aspect of the mentoring enactment theory suggests that mentors are more biased to invest in and to participate in a mentoring relationship if there is apparent reciprocity and the mentor will gain as much from the relationship as the mentee (Snoeren et al., 2016). This feeds into the self-determination theory and motive disposition theory that all individuals have basic psychological needs (Larsson et al., 2016). While it is typically expected that mentees will obtain the greatest advantages of mentoring, mentors also expect something in return based on their psychological needs (Mansson & Myers, 2012). Psychological needs are subjective, according to the self-determination theory, for the sustaining and promotion of personal growth and psychological healthiness (Reeve & Lee, 2018). Mentors will expect to obtain some form of personal growth and psychological healthiness as well as the mentee (Reeve & Lee, 2018).

**Summary of the conceptual framework.** A conceptual view of this qualitative collective case study research revealed that mentoring enactment theory, self-determination theory, and motive disposition theory are applicable to address the research questions of this qualitative study. Mentoring enactment theory suggests that individuals engaging in mentoring relationships have comparable perceptions of the relational behaviors that are predominant to initiate and maintain a successful mentoring relationship (Snoeren et al., 2016). Self-determination theory suggests that all humans have three rudimentary psychological needs: autonomy, competence, and relatedness (Larsson et al., 2016). The depth and degree to which individuals have these three psychological needs are dependent on whether they are intrinsically or extrinsically motivated (Howard et al., 2016). Motive disposition theory suggests that

individual needs are determined at an early age and aid in the explanation of motivation, behavior, and personality (Schüler et al., 2018).

**Figure 1: Mentoring Relationships among Women Leaders**



*Figure 1.* Conceptual framework for qualitative case study on mentoring relationships, or lack thereof, among women leaders which affect business and organizational success and leadership competence (Alvarez & Lazzari, 2016).

## Definition of Terms

*Mentor:* A mentor is an individual that guards, guides, and grows another individual (O'Brien, 2019). This is consistent with Lane's (O'Brien, 2016) definition of mentorship which is that mentorship is a developmental relationship. In this developmental relationship, a more experienced individual assists a less experienced individual in the development and endeavors of their career (O'Brien, 2016).

*Novice:* A novice is a person that is new or inexperienced in a field or situation (Burston, 2017). A novice has also been defined as an individual who has obtained a position in the workplace and, being inexperienced, functions with the cognizance that they are constantly being evaluated (DeMink-Carthew & Bishop, 2017). A novice worker is unaware of the priority of numerous applications of their job and thus needs guidance and leadership (DeMink-Carthew & Bishop, 2017).

*Nuclear Vendor:* A nuclear vendor is a company offering the sale of nuclear goods and services (Freire & Andrade, 2018). Nuclear vendors specialize in the production and delivery of products and services for operational utilities for the generation of energy using nuclear fuel (Freire & Andrade, 2018). Nuclear vendors support nuclear reactors because of their efficiency, reliability, and low greenhouse gas emissions (Tonks et al., 2017).

*Onboarding:* Onboarding is the process by which inexperienced employees obtain knowledge, skills, and the behaviors essential for their productivity and their success (Lee-Kim, Lee-Kim, et al., 2016). Onboarding is regarded as the training of new employees for the benefit of their learning (Karambelkar & Bhattacharya, 2017). Onboarding aids new employees to be productive while creating a low level of engagement (Karambelkar & Bhattacharya, 2017).

*Veteran:* A veteran is an individual who has had extensive service, experience, or knowledge in a particular field or profession (Burston, 2017). A veteran has also been defined as

an individual who has obtained a position in the workplace as a leader and provides guidance and evaluations of novice individuals (DeMink-Carthew & Bishop, 2017). A veteran employee is well aware of the priority of numerous applications of their job and as a result can provide guidance and leadership to others (DeMink-Carthew & Bishop, 2017).

### **Assumptions, Limitations, Delimitations**

Assumptions are statements that are accepted as true without established proof. In this qualitative collective case study, an example of assumptions is the acceptance of statements made by the women being interviewed. Limitations refer to weaknesses that may be prevalent within the study. An example of a limitation in this study is the lack of demographics and cultural background of the women being interviewed. Delimitations are the boundaries of the study. For example, one of the delimitations of this study is that only women will be interviewed who are in leadership positions. Women who are individual contributors will not be included in this study.

**Assumptions.** Assumptions are those elements or statements that are accepted as true without proof of their truth (Fjeld, 2018). Because of the lack of proof that the assumption is true, there is a certain amount of risk associated with the assumption (Fjeld, 2018). Thus, a risk mitigation strategy for each assumption is essential (Fjeld, 2018). Within the context of this qualitative collective case study, one assumption is that the information that will be obtained in the interviews with the novice women leaders and veteran women leaders is factual and represents the behaviors of the women leaders (Fjeld, 2018). Data collection will primarily be gathered through interviews with novice and veteran women leaders at local nuclear vendor facilities (Fjeld, 2018). The assumption will be made that the information collected during the interviews is factual and is centered on the novice and veteran women leaders' self-awareness and the reality of their experiences rather than their perceptions (Fjeld, 2018). To mitigate the

risk of perceptions versus reality, follow-up questions ensuing from the initial research questions will be asked for specificity and the providence of examples (Fjeld, 2018).

**Limitations.** Limitations are the prospective weaknesses of a study (Keightley, Pickering, & Allett, 2012). Limitations of this qualitative collective case study are consistent with other qualitative case studies in that interviews are performed with the expectation of a two-way exchange where questions are asked, questions are answered, experiences are shared, attitudes are outlined and perspectives on specific issues or topics are identified and explained (Keightley et al., 2012). The limitation is that there is an expectation that the interview will result in a two-way exchange when the interview may not result as expected (Keightley et al., 2012). For certain questions, the interviewee may need additional time to think about the question and their response to the question (Keightley et al., 2012). There may be interview questions that result in prolonged silence, awkwardness and even embarrassment (Keightley et al., 2012). Interviews typically prohibit pauses or lapses in conversation, even if only for a short period (Keightley et al., 2012).

Mentoring can enhance performance and may provide a safe and secure environment for the mentee, especially for those individuals who are from a diverse demographic (Wilson, S., 2015). However, a limitation of this qualitative collective case study is the potential variation in the experiences and attitudes of novice and veteran women leaders from different demographics and cultures. These potential variations will not be addressed within this collective case study. As such, there may be demographical and cultural aspects to the responses of the interview questions that are not taken into account for this study. These responses could potentially have great impact on the attitudes and approaches that the novice and veteran women leaders have towards the research questions of this study.

**Delimitations.** Delimitations represent the boundaries or scope of a study (Feenstra, 2018). The scope of this qualitative collective case study will include novice women leaders and veteran women leaders in the local nuclear vendor facilities. Women who are not part of the nuclear vendor industry will not be included in this study. For those women who are employed in the local nuclear vendor facilities to be included in the study, they must be women who are currently in leadership positions or women who have been in leadership positions in the past. Women who have been involved with mentoring but have not been in leadership positions will not be included in this study.

### **Significance of the Study**

The significance of this qualitative research collective case study is to contribute to the body of knowledge associated with leadership mentoring theories and application of those theories to women in leadership positions (Alvarez & Lazzari, 2016). This study will explore the mentorship of women leaders in local nuclear vendor facilities at both the novice and veteran level. This study will add to the body of knowledge on the mentoring of women leaders and the application of that knowledge to leadership. This study will also add to the body of knowledge on how mentoring of novice leaders enhances business and organizational success and improves leadership competence (Alvarez & Lazzari, 2016). Specifically, the significance of this qualitative research study is to contribute to the body of knowledge of how mentorship of novice women leaders by veteran women leaders enhances business success, organizational success, and improved leadership competence at local nuclear vendor facilities.

**Reduction of gaps.** Literature is readily available describing the mentoring activities of individuals at the beginning of their careers and their mentors who are experienced and proficient in their careers (Corbell, 2016). Much literature exists that describes young men and women directly out of college and obtaining mentoring relationships at the beginning of their professions

(Corbell, 2016). Literature is available on entry-level individuals who gain employment at a workplace where employment onboarding includes mentoring activities to help guide the individual in their new position (Corbell, 2016). Literature was not as prevalent, however, addressing mentoring of individuals growing in an organization and obtaining or being promoted to leadership positions (Corbell, 2016). Specifically, literature was not prevalent addressing mentoring of novice women leaders by veteran women leaders (Corbell, 2016). There was also a lack of literature on how mentoring novice women leaders by veteran women leaders enhances business and organizational success while improving the leadership competence of the novice leader (Alvarez & Lazzari, 2016).

**Implications for Biblical integration.** As King of the Israelites, David made decisions that would not only affect him but would also affect entire nations. After David sinned with Bathsheba, God sent Nathan the prophet to speak with David about what David had done. Nathan was a wise man and rather than directly tell David that David had sinned and would be punished, Nathan first provided a metaphor of David's sin and elicited David's reaction. After David reacted to Nathan's example in anger, Nathan told David that the metaphor represented what David had done with Bathsheba (2 Samuel 12:1-7, KJV). Nathan mentored David and showed David that his actions were not that of a righteous leader. David, a man after God's own heart and King of Israel, repented because of the wise counsel provided to him by Nathan.

Beckwith (2016) states that the purpose of business is to serve God and to provide for the continuance of God's kingdom. For this to occur, businesses must be sustainable. Thus, businesses must be run by leaders who will work in concert with others and who are willing to seek counsel and the guidance of others who are more experienced than themselves to collectively pursue the corporate good and God's ultimate purpose. Cawley and Snyder (2015)

further state that Christian leaders, in response to God's grace, are capable of developing organizational policies and procedures that foster engagement within the organization and promote organizational and staff success. To be a successful leader, guidance and counsel, or more specifically mentorship, is needed from other more experienced leaders who can provide wise counsel and impart a means to the novice leader of viewing the organization that makes logical sense to the novice leader (Cawley & Snyder, 2015).

**Relationship to the field of study.** This qualitative collective case study on the importance of mentorship of novice women leaders by veteran women leaders is related to the leadership cognate (Alvarez & Lazzari, 2016). This relationship to the leadership cognate is developed through the study of the observed influence veteran women leaders' exhibit during mentorship activities and the established relationship with novice women leaders (Alvarez & Lazzari, 2016). The leadership cognate includes the study of leadership theories and how veteran leaders can influence the behaviors and attitudes of novice leaders through counsel and guidance (Alvarez & Lazzari, 2016). This qualitative collective case study includes a review of available literature that is related to the theories of leadership and unites the information to the assessment of the influence of the veteran leaders' guidance and counsel on the novice leaders' growth and success within the business sector (Alvarez & Lazzari, 2016). This assessment is important to the field of business and the success of novice leaders, the success of their organization and business, and the novice leader's leadership competence (Alvarez & Lazzari, 2016).

**Summary of the significance of the study.** This qualitative research collective case study is significant because of its contribution to the body of knowledge associated with leadership mentoring theories and the application of those theories to women in leadership

positions. This study will explore the mentorship of women leaders in local nuclear vendor facilities at both the novice and veteran level. Mentorship has proven to enhance business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016). While mentoring can enhance performance, it also may provide a safe and secure environment for the mentee which improves job satisfaction and productivity (Wilson, S., 2015). Business and organizational success, and improved leadership competence, is important to promote the purpose of business which is to serve God and to provide for the continuance of God's kingdom (Beckwith, 2016).

### **A Review of the Professional and Academic Literature**

The professional and academic literature available on the subject of mentorship of women in leadership positions includes a definition of mentorship: what it is, the advantages of mentoring, and the recognizable barriers associated with mentoring. The literature also discusses the impact of mentoring, mentoring practices, and theory. Literature is also available on training associated with mentoring, and the difference between relational mentoring and the non-relational attributes of mentorship. The available literature provides information on men as mentors versus women as mentors as well as the statistics on mentoring. Lastly, a Biblical integration on mentorship is provided from the available professional and academic literature.

**Mentor/mentorship definition.** O'Brien (2019) states that a mentor is an individual that guards, guides, and grows another individual. O'Brien (2019) continues that mentorship is the act of guarding, guiding, and growing another individual. This is consistent with Lane's (2016) definition of mentorship which is that mentorship is a developmental relationship where a more experienced individual assists a less experienced individual in the development and endeavors of their career. Mentorship is a continuous activity where a veteran individual provides support and guidance to a less experienced individual. Mentorship allows less experienced individuals to

become successful contributors to the aspirations and goals of an organization (Lane, 2016).

Mentoring as a more basic definition is a relationship between a young individual and an older individual so that the older individual can help the younger individual navigate through life and specifically, in this context, through the world of employment (Lunsford, 2016).

**Formal versus informal mentoring.** There are several types of mentoring relationships in the workplace (Block & Tietjen-Smith, 2016). Two of these are formal mentoring relationships and informal mentoring relationships (Block & Tietjen-Smith, 2016). Formal mentoring relationships are originated through a company or organizational platform that assigns senior employees with novice employees to aid the novice employees in the integration of the organization and to guide the novice employee in the areas of organizational processes and procedures (Block & Tietjen-Smith, 2016). Formal mentoring seeks to aid in the assurance that the novice employee has the career support and psychosocial support necessary to enhance the novice employee's career goals and personal development (Menges, 2016). In formal mentoring relationships, a third party, such as a manager or human resource advisor, matches the novice employee with a veteran employee based on their assessments of the likelihood that a connection will be formed (Menges, 2016).

Informal mentoring relationships are those relationships that develop naturally and without any involvement from the company or organization (Block & Tietjen-Smith, 2016). Informal mentoring relationships are typically formed by mutual affinity and rapport between the two parties involved and not by a third party (Block & Tietjen-Smith, 2016). Informal mentoring relationships that are formed between the two affected parties have been found to result in more positive communications and interactions (Menges, 2016). This is because the individuals, the mentor, and mentee that have formed the informal relationship, tend to heighten

each other's constructive attributes and obtain affirmative social identity from observing and regarding each other in a favorable light (Menges, 2016). Additionally, novice employees who form an informal mentoring relationship with a veteran employee whose personality is similar to their own, tend to advance their careers more quickly and have more job satisfaction (Menges, 2016).

Both formal mentoring relationships and informal mentoring relationships may be greatly beneficial to mentees (Block & Tietjen-Smith, 2016). In a study on mentoring of women, the female participants from the study disclosed that the most positive mentoring relationships they had throughout their careers were informal mentoring relationships (Block & Tietjen-Smith, 2016). This was because the relationships were formed, in many cases, by coincidence and without any prearranged agenda or schedule (Block & Tietjen-Smith, 2016). Informal mentoring relationships tend to develop instinctively and without any assistance (Block & Tietjen-Smith, 2016). Informal mentoring relationships formed naturally through interpersonal relationships increase perceptions by the mentees of significance and meaningfulness (Colbert, Bono, & Purvanova, 2016).

**Stages of mentoring.** There are five stages of mentoring (Allen & Dumani, 2017). The first is selection (Taylor & Black, 2018). The second stage of mentoring is initiation, followed by cultivation, then separation, and finally redefinition (Allen & Dumani, 2017). As the mentor and mentee progress through each of these different stages, the dynamic of the mentoring relationship changes (Allen & Dumani, 2017). Throughout a positive mentoring relationship, both the mentor and the mentee are developing through the various stages (Allen & Dumani, 2017). The mentee acquires skills that are needed to be productive and to enhance their career (Allen & Dumani, 2017). The mentor acquires knowledge of the mentee to effectively nurture

and develop the next generation (Allen & Dumani, 2017). If the mentoring stages are successfully progressed, the mentor and the mentee should both obtain benefits (Pfund, Byars-Winston, Branchaw, Hurtado, & Eagan, 2016).

**Selection.** The first stage of mentoring is the selection of the mentor for the mentee (Taylor & Black, 2018). The dispositions of the mentee must be understood before the assignment of a mentor (Taylor & Black, 2018). This will help assure the success of the mentoring relationship (Taylor & Black, 2018). Mentoring programs, such as those located in onboarding activities, should evaluate a mentee's adequacy with a mentor and the mentee's predisposition for a mentoring relationship (Taylor & Black, 2018). Mentors should also be interviewed so that an inventory of mentors is developed for use in pairing the mentors with the mentees (Taylor & Black, 2018). This will help assure that the compatibility of the mentor and mentee will allow a successful pairing (Deepali, Jain, & Chaudhary, 2017).

**Initiation.** After the selection stage, the next step of mentoring is the initiation stage (Mansson & Myers, 2012). During this stage of a mentoring relationship, the mentee and mentor begin to establish a relationship (Mansson & Myers, 2012). The mentee commences to have high regard for the mentor and to respect the mentor as the mentee (Mansson & Myers, 2012). This occurs as the mentee witnesses the mentor's competence and proficiency for guiding and supporting the mentee (Mansson & Myers, 2012). The initiation stage takes place in the first six to twelve months and involves the mentor and mentee devising expectations and becoming more familiar with one another (Allen & Dumani, 2017).

**Cultivation.** The third stage of mentoring is the cultivation stage (Allen & Dumani, 2017). This stage may last from two to five years and is where the mentoring relationship develops (Allen & Dumani, 2017). This stage is also the stage where psychosocial and

influential support are at the utmost levels (Allen & Dumani, 2017). The cultivation stage is also the stage where the mentee moves past the current state and into the next level of competence and professionalism (Kleine et al., 2017). For this to happen, the mentor and mentee must have what is called cultivating realization communications (Lunsford, 2016). This conversation addresses the mentee's readiness to assume more responsibilities (Lunsford, 2016).

**Separation.** The fourth stage of mentoring is called the separation stage (Allen & Dumani, 2017). The separation stage comprises a transition phase where the mentee establishes more autonomy from the mentor (Allen & Dumani, 2017). This autonomy, or independence, is both from a geographical and an emotional state (Allen & Dumani, 2017). The separation stage is marked by the mentee's physical and emotional distance from the mentor (Allen & Dumani, 2017). This allows the mentee to react to the autonomy that the mentor has been preparing the mentee for (Christensen & Hammond, 2015).

**Redefinition.** The fifth and final stage of mentoring is the redefinition stage (Allen & Dumani, 2017). This is the stage where the mentor and mentee develop a relationship that is more consistent with a peer relationship than a mentor relationship (Allen & Dumani, 2017). This stage has also been called the friendship phase and is where the mentor and mentee become supportive colleagues and even possibly long-term friends (Allen & Dumani, 2017). For the redefinition stage to be successful, there must be an effective termination of the mentoring relationship (Allen & Dumani, 2017). The mentee should feel that he has achieved the desired objectives while in the mentoring relationship (Memon, Rozan, Ismail, Uddin, & Daud, 2015).

**Roles and activities of a mentor.** The roles and activities of a mentor are many. Clutterbuck and Lane (2016) state that mentors are role models that are guides, tutors, coaches, and confidants. Mentors provide guidance, act as role models, and utilize their experience and

knowledge to educate mentees (Clutterbuck & Lane, 2016). Mentors also listen to their mentee's opinions and ideas, talk to their mentees about career issues, coach and counsel their mentees (Clutterbuck & Lane, 2016). Mentors demonstrate empathy and provide advice to their mentees as well as highlight their mentee's strengths and provide input to the mentee on opportunities for improvement (Izadinia, 2015). Mentors also provide mentees with communication, encouraging gestures, sincerity, constructive feedback, and emotional support (Izadinia, 2015). Taylor and Black (2018) argued that mentors should generate four effects. The first of these effects is emotional support (Taylor & Black, 2018). The second effect is career support (Taylor & Black, 2018). The third effect that mentors should generate is subject knowledge support (Taylor & Black, 2018). The fourth effect that mentors should generate is role modeling (Taylor & Black, 2018).

**Emotional support.** Mentors that provide emotional support may create an influential bond with the mentee that encourages and supports the mentee in actions needed for cultivating and improving performance in the workplace (Kock, Mayfield, Mayfield, Sexton, & De La Garza, 2019). Additionally, when mentors demonstrate empathy, the ability to appreciate and understand the mentee's experiences, the mentee's job satisfaction and accomplishment of daily activities in the workplace increases (Kock et al., 2019). A mentor that can provide emotional support and security influences a mentee's performance and fosters innovation (Kock et al., 2019). Empathetic mentorship attempts to strengthen and support the wellbeing of the mentee (Simmons, 2017). Simmons (2017) states that if the wellbeing of an organization's staff is not healthy, then the organization is not healthy and will not be successful or profitable. Mentors who seek to support the emotional wellbeing of their mentees have abundant self-awareness, are

open- and broad-minded, proactively respond to challenging work situations and have emotional intelligence (Simmons, 2017).

**Career support.** Career support, or in this case, the support necessary for advancement into leadership positions, emanate from two different domains (Hideg & Shen, 2019). These two domains are from the workplace and from an employee's personal life (Hideg & Shen, 2019). Career support through mentoring in the workplace is critical for the advancement of women in their career and the attainment of leadership roles (Hideg & Shen, 2019). Career support includes coaching, sponsoring, encouragement, counseling, and also friendship (Hideg & Shen, 2019). Research has shown that career support is specifically important for those women, as opposed to men, who wish to attain leadership positions (Hideg & Shen, 2019). Nonetheless, employees who feel they have career support and perceive themselves to be increasing in learning have more job satisfaction than those who do not (Oliveira, Cavazotte & Dunzer, 2017).

**Subject knowledge support.** A mentor who is also a subject matter expert is a great asset to the mentee (Chen, Watson, & Hilton, 2016). This is especially true if the mentor can accurately and intelligently relay the subject matter knowledge to their mentee (Chen et al., 2016). Additionally, the ability of a mentor to differentiate and distinguish subjects with distinctive levels is also an asset to their mentee (Chen et al., 2016). A mentor must be able to support the mentees' success by helping and teaching them to acquire explicit subject matter knowledge and general skills needed for the business (Gunn, Lee, & Steed, 2017). This allows the mentees to obtain skills as well as allows the mentor to aid the mentee to overcome difficulties related to the subject matter (Gunn et al., 2017).

**Role modeling.** Role models are defined as individuals who impact another individual's achievements, inspirations, and goals by functioning as positive behavioral representations and

examples (Garciaa, Restubogb, Ocampoc, Wangc, & Tangd, 2019). Mentors have reported that they find the practice of role modeling to be the most beneficial aspect of mentoring for mentees (Gunn et al., 2017). However, mentors have additionally reported that this aspect of mentoring is also the most challenging for the mentor (Gunn et al., 2017). The process of role modeling incorporates mentors sharing their experiences and actions, achievements and disappointments with their mentees (Gunn et al., 2017). This allows the mentees to learn from both the mentors' experiences and setbacks (Gunn et al., 2017). Role modeling has been determined to aid in the adaptability of a mentee's career as it can help a mentee socially learn via the role modeling process (Garciaa et al., 2019).

**Qualities of effective mentors.** For mentors to be effective in their roles, there are certain attributes that they must possess (Clutterbuck & Lane, 2016). Specifically, five attributes are a must for mentors to be effective (Clutterbuck & Lane, 2016). The first of these five attributes is that a mentor must be a good teacher (Clutterbuck & Lane, 2016). Second, mentors must be good coaches (Clutterbuck & Lane, 2016). Third, mentors must be compatible with their mentees (Clutterbuck & Lane, 2016). Fourth, mentors must be patient (Clutterbuck & Lane, 2016). Finally, mentors must be available (Clutterbuck & Lane, 2016). Additionally, for mentors to be effective, mentors must be provided with opinions in the form of constructive feedback from their mentees to allow growth and development for the mentors (Fokuo et al., 2017).

**Teacher.** For a mentor to be a good teacher, the mentor must be a subject matter expert who can channel the learning process to aid the mentee to construct their leadership learning (Couto, Romao, & Bestetti, 2016). Good teachers can activate prior knowledge and gaps in the mentee's knowledge through collaborative examples (Couto et al., 2016). Good teachers are

those that can promote a positive learning environment and that can create a comfortable and trusting atmosphere that subsequently creates a favorable learning process (Couto et al., 2016). The concept of a mentor being a teacher is an example of a vertical leadership where a more mature individual assists a younger and less experienced student (Lunsford, 2016). The emphasis of a mentor also being a teacher is on mutual respect, obligations to each other, and a strong emotional bond that is formed with each other (Lunsford, 2016).

**Coach.** Good mentors must also be good coaches. Good coaches identify performance gaps which are the gaps between the mentee's present performance and the mentee's desired performance (Lloyd, 2016). Once the gap is identified, a good coach will observe and evaluate the behaviors of the mentee that are contributing to the gap and will work with the mentee to develop and instill new behaviors in the mentee to reduce the gap (Lloyd, 2016). A good coach recognizes that the gap cannot be reduced all at one time (Lloyd, 2016). Rather, a good coach understands that the gap is constructed of numerous small skills that must be identified and isolated for it to be improved (Lloyd, 2016). A good coach provides ongoing support, is available and accessible when needed, and is skilled at building a rapport with their mentees (Gunderson, Willging, Trott, Green, & Fettes, 2018). A good coach is considered a problem solver and a helper to the mentee (Gunderson et al., 2018).

**Compatibility.** For a mentoring relationship to be successful, the mentor and mentee must be compatible with each other (Kurré, Schweigert, Kulms, & Guse, 2014). Finding a mentor who is compatible with the mentee can sometimes be a challenging task (Kurré et al., 2014). When a mentor and mentee are not compatible, the relationship between the two often leaves the mentee feeling unsupportive and ineffective (Kurré et al., 2014). Termination of the mentoring relationship can also occur when the mentor and mentee are not compatible (Kurré et

al., 2014). A mentor and mentee are typically compatible when there are similarities perceived in terms of professionalism, personal traits, and viewpoints (Kurré et al., 2014).

A study performed by Taylor and Black (2018) confirmed that if mentor and mentee predispositions are not explored before an assignment, a mentor could be paired with a mentee that is not compatible with the mentor thus resulting in an unproductive and even a potentially terminated mentoring relationship. One of the benefits of a woman mentor being paired with a woman mentee is that there can potentially be many compatible similarities and histories between the two women (Nottingham, Mazerolle, & Barrett, 2017). While some men may be able to relate, it may be very difficult for other men mentors to relate to a woman mentee about the challenges and burdens of a woman's career while also raising a family (Nottingham et al., 2017). Women mentees appreciate that women mentors are well aware of the different experiences that occur in women's careers (Dawson, Bernstein, & Bekki, 2015). Women mentees also appreciate that women mentors are aware of the different and unique challenges that women bring to the mentoring field (Dawson et al., 2015).

**Patience.** Good mentors must be patient (Bailey, Voyles, Finkelstein, & Matarazzo, 2016). The ideal mentor must have patience and compassion for the mentee (Bailey et al., 2016). A patient and understanding mentor must be able to recognize the mentee's needs, the mentee's current situation and should be supportive of the mentee to help reaffirm the mentee's confidence and assurance (Bailey et al., 2016). A patient mentor is often also kind, approachable and considerate of others (Bailey et al., 2016). These attributes enable the camaraderie and counseling facets of psychosocial support (Bailey et al., 2016). A patient mentor perseveres even in the realization of the mentee's difficulties and failures (Bailey et al., 2016). A patient mentor is not impulsive or impetuous but rather exercises attentive waiting and watching,

trusting in the perception of the mentee's qualities and patiently helping the mentee succeed (Talone, 2013).

**Availability.** Good mentors must be available (Cross, Lee, Bridgman, Thapa, Cleary, & Kornhaber, 2019). The availability of mentors is paramount to the success of mentoring relationships (Cross et al., 2019). The availability of mentors involves the mentor being willing and assuring time with the mentee, keeping in touch with the mentee regarding development and being receptive and approachable to their mentees' requests and needs (Cross et al., 2019). Wang and Wang (2017) cited mentor availability as one of the three most important characteristics of a successful mentoring relationship based on a survey of mentees in a mentor relationship. When adequate availability is not possible, the effect on the career development and personal interests of the mentee is limited (Wang & Wang, 2017).

**The practical issue of time.** When engaging in a mentoring relationship, the practical and logistical issue of time is significant and complex (Clutterbuck & Lane, 2016). Time-related issues are often associated with the failure of mentoring relationships (Clutterbuck & Lane, 2016). There are four reasons that time-related issues are associated with the failure of a mentoring relationship (Clutterbuck & Lane, 2016). First, this could potentially be because either the mentor or mentee has not committed time to the mentoring relationship (Eller, Lev, & Feurer, 2014). Second, this could potentially be because the mentor needs time to develop their skills (Clutterbuck & Lane, 2016). Third, this could be due to the lack of the development of the mentoring relationship (Clutterbuck & Lane, 2016). Mentoring relationships take time to adequately develop. Fourth, mentees need time and patience for their learning and development (Clutterbuck & Lane, 2016).

**Time commitment.** In one survey, 63% of mentors stated that their biggest concern in mentoring was the time that needs to be committed to the mentoring task (Clutterbuck & Lane, 2016). In a separate survey, 10% of the participants cited commitment of time as the reason for a failed mentoring relationship that they had been engaged in (Clutterbuck & Lane, 2016). Time is important when addressing goals, with mentees remarking the importance of establishing an appropriate pace, time management, and flexibility (Eller et al., 2014). Mentees also stated a need for mentors to adequately manage their time, keep their promises, and set timelines for the mentee to achieve established goals and expectations (Eller et al., 2014). Clutterbuck and Lane (2016) stated that when the mentor or mentee consistently break or ignore mentoring appointments, there is a lack of commitment or a problem with managing time. There may also be a lack of expectations or ground rules by one or both parties (Clutterbuck & Lane, 2016).

**Development of mentors' skills.** Mentoring involves skills that are typically not established without adequate training (Clutterbuck & Lane, 2016). In the initial stages of a mentoring relationship, building trust is extremely important (Clutterbuck & Lane, 2016). A mentor that does not exhibit the necessary skills early in a relationship to build trust with the mentee may not have positive results (Clutterbuck & Lane, 2016). These skills include respect, patience, an open mind, and being fully aware of their own developmental needs (Clutterbuck & Lane, 2016). A study performed on what mentees expect of their mentors included leading by example, modeling interactions with others and sharing struggles (Eller et al., 2014). Similarly, mentors stated that development activities that would aid them in mentoring include providing role modeling paradigms, modeling ethical behavior, and identifying how to demonstrate the purpose and importance of their trade (Eller et al., 2014).

**Development of the mentoring relationship.** Mentoring relationships take time to develop (Clutterbuck & Lane, 2016). Mentoring relationships should be considered long-term relationships that endure and change over time (Clutterbuck & Lane, 2016). If either the mentor or mentee enters the relationship with the expectation that the relationship is only for a short amount of time, the relationship is certain to suffer (Clutterbuck & Lane, 2016). Time is often seen as the trust creator and the developer in the mentoring relationship (Clutterbuck & Lane, 2016). Eller et al., (2014) state that it takes time in a mentoring relationship for mentors to recognize the individuality of each mentee, to recognize the potential of each mentee, and to understand where the mentee is regarding their level of need.

**Development of mentees' skills.** A mentee's development is typically acquired through one-on-one learning opportunities with their mentor, expanded social interactions, and reflections that occur over time (Clutterbuck & Lane, 2016). It may take years for a mentee to change and develop. Learning is not predictably a stress-free process (Clutterbuck & Lane, 2016). The mentor can offer critical encouragement for the mentee at these times of crisis (Clutterbuck & Lane, 2016). Mentees cited a caring and compassionate mentor who provided support over the long-term, as opposed to the short-term, as a necessity for the development of their skills (Eller et al., 2014). The giving and apportioning of time and communication characterize the mutual quality of mentoring relationships (Lunsford, 2016).

**Women versus men as mentors.** It is crucial to address gender disparities in mentor engagement to understand the significance of women mentors for women mentees (Daar, Abdou, Wilson, Hazen & Saadeh, 2019). Women leaders provide distinct talents that enhance the effectiveness of their relationship with a mentee (Daar et al., 2019). These talents include their ability to cultivate creativity, and their ability to enhance organizational performance (Daar et al.,

2019). Women mentors have consistently been reported as providing more psychosocial and instrumental support than male mentors (Daar et al., 2019). Studies have also shown that women mentors may be more proficient at building rapport than mentors who are men (Daar et al., 2019). Additionally, studies have shown that male mentors were more prone to believe that trust had to be earned by their mentees whereas women mentors were more likely to accept the trustworthiness of their mentee without the mentee working to earn their trust first (Allen & Dumani, 2017). While women mentors bring undeniable positive attributes to mentoring relationships, studies have determined that because of the male domination in the majority of leadership positions, man to man mentorship relationships proffer the utmost benefits to a mentee of any other combination of genders (Allen & Dumani, 2017). The disparity in mentorship opportunities needs to be narrowed for woman to woman mentorship relationships (Daar et al., 2019).

Employment in the areas of science, technology, engineering and math (STEM) is expected to escalate to greater than 8.5 million opportunities by the year 2020 (Baker, 2017). However, the number of women that are earning degrees in these curricula is not increasing accordingly (Baker, 2017). Women only account for 29% of the workforce in the STEM areas of study (University of Phoenix, 2017). Results from a survey of women recently graduating from college in these curricula determined that women professors who provided encouragement to the recent graduates and who acted as role models for these women had great influence (Baker, 2017). Female students in the STEM curriculum were twice as likely to graduate if they had a woman professor who mentored and encouraged them throughout their college terms (Baker, 2017). Alternatively, Block and Tietjen-Smith (2016) state that the lack of focused mentoring of

veteran women to novice women is a contributing factor to the shortage of women in technical fields who continue through the programs to graduation.

Young girls learn how to navigate socially entrenched gender standards at a young age and typically land within the social constructions that are built for them before their entry into the workforce (Block & Tietjen-Smith, 2016). These socially entrenched positions aid in the formation of the structures of their consciousness (Block & Tietjen-Smith, 2016). Young girls become women that are typically well versed in femininity and the expected performances and behaviors of women (Block & Tietjen-Smith, 2016). When women in leadership positions are either too much or too little within the social structures that are expected of them, the result can be tension and conflict in the workplace (Block & Tietjen-Smith, 2016). Both men and women employees are less tolerant of women leaders who portray a lack of empathy, are gruff, and have characteristics and behaviors of men in the same leadership positions (Block & Tietjen-Smith, 2016). Women in leadership positions must be able to develop the necessary skills that will leverage their strengths and minimize their recognized weaknesses (Block & Tietjen-Smith, 2016). This can be accomplished through the mentorship of women leaders who have successfully navigated the trenches of a primarily male-dominant field (Block & Tietjen-Smith, 2016). Successful women mentors have an appreciation and understanding of the work and life balance that are challenges in the workplace (Mancl & Lee, 2016). Successful women mentors can also provide input on setting goals and objectives for novice women leaders (Mancl & Lee, 2016).

**Psychosocial support.** In the context of mentoring, psychosocial support is the counseling, support, and encouragement that is provided by the mentor to the mentee (Bailey et al., 2016). Psychosocial support is provided when a mentor is patient, kind, approachable, and

considerate of the mentee (Bailey et al., 2016). There are psychosocial keystones of leadership and social experiences in the work environment that are distinctive to women and that emphasize the significance of women mentoring other women (Block & Tietjen-Smith, 2016). Women mentors have consistently been reported as providing more psychosocial support than male mentors (Allen & Dumani, 2017). This is because women are typically better at acceptance and validation through communication and collaboration (Menges, 2016). Additionally, women tend to excel at empathetic listening, providing positive support of mentees through challenging times, and providing mentees with the self-confidence they need to persevere (Menges, 2016). While veteran women typically provide more psychosocial support than male mentors to women mentees, psychosocial support can increase further if the veteran women mentors and the novice women mentees are similar in personality, conscientiousness, and experience (Menges, 2016).

One could surmise the results of a mentor and mentee that are considered too similar (Menges, 2016). For instance, similarities in extraversion, amicability, and neuroticism have been revealed to not influence the support provided by mentoring (Menges, 2016). The results of the study that addressed these three similarities determined that these three traits either do not matter or were neutralized by the dissimilarities posed (Menges, 2016). This study further concluded that while the benefits of similarity in mentor and mentee relationships were positive, dissimilarities in these three areas were also positive in the mentoring relationships (Menges, 2016). For example, two extraverted individuals could potentially find conflict in mentoring meetings because both could compete over who leads the discussion (Menges, 2016). Two agreeable individuals, or two introverts, could lead to mentoring meetings that are unproductive and communication that is hesitant and cautious (Menges, 2016). Alternately, two disagreeable individuals could also have unproductive meetings and conflict-laden communication (Menges,

2016). If both the mentor and mentee have personalities that are steeped in neuroticism, emotions within the mentoring relationship will potentially result in a lack of personal growth for the mentee (Menges, 2016). Thus, while similarities in personalities of the mentor and mentee are important for success, some personality types are better if they are not similar (Menges, 2016).

**Instrumental support.** In the context of mentoring relationships, instrumental support is primarily the support provided by mentors to mentees that aid in the growth and development of the career of the mentee (Colbert et al., 2016). Mentors aid in the development of the mentee in the areas of product production, manufacturing processes, or in the achievement of an organizational objective (Lunsford, 2016). Mentors focus on outcomes that help their mentees pursue opportunities that enhance their growth and development in the workplace (Colbert et al., 2016). Mentors also provide instrumental support in the work-life balance of the mentees (Colbert et al., 2016). Because veteran women better understand the challenges imposed on women in leadership positions concerning raising a family and holding a leadership position, veteran women leaders are better able to provide instrumental support of novice women leaders in the area of work-life balance (Daar et al., 2019).

**Barriers encountered in mentoring relationships.** Mentoring relationships are not always productive or positive (Opengart & Bierema, 2015). There are mentoring relationships that become damaging and dysfunctional (Opengart & Bierema, 2015). This results in adverse outcomes on the attitudes and performance of both the mentor and the mentee (Opengart & Bierema, 2015). While both the mentor and mentee may have positive aspirations towards each other, interpersonal complications may impair the relationship (Opengart & Bierema, 2015). Dysfunctional mentoring relationships may result in aggressiveness, betrayal, bullying,

deception, abuse of power, and psychological abuse (Opengart & Bierema, 2015).

Dysfunctional mentoring may also create a sense of isolation, stress-induced mood disorders and physical symptoms for the mentee (Dawson et al., 2015).

In certain geographical areas and specific occupations, mentors are predominately men (Deepali, et al., 2017). This is a barrier since the geographical areas and occupations have few women in their employ (Deepali et al., 2017). As a result, inequalities exist as to the gender available for mentoring women mentees who may be more compatible with a woman mentor (Deepali et al., 2017). The lack of women mentors to women mentees compromises job satisfaction for the women as well as career development (Deepali et al., 2017). Providing women access to knowledgeable, experienced, and networked women mentors who are compatible with the mentees is important to advancing the mentees' careers, optimizing their potential, increasing their productivity and reducing retention (Cross et al., 2019). In another study, mentors were contacted electronically for an interview that could be done either face-to-face or via conference call (Cross et al., 2019). The profile of the mentors included senior executives engaged in mentoring relationships (Cross et al., 2019). Of the 50 mentors that were interviewed, all the mentors were men (Cross et al., 2019). There were no women mentors that were senior executives engaged in mentoring relationships (Cross et al., 2019). This is another barrier to women mentees looking for a women mentor (Deepali, et al., 2017). Senior executives are predominantly men (Deepali et al., 2017).

Cross et al., (2019) performed a study where two of three women had mentors; however, most of the mentors were male. The women participating in the study perceived the mentoring process as an explicit matter of bias (Cross et al., 2019). In this study, women mentees received a critique of their performance more often than did their male counterparts (Cross et al., 2019).

Additionally, 56% of the women participating in the study reported that their mentors used the work they performed to selfishly further the career of the mentor rather than aiding in their career (Cross et al., 2019). Lunsford (2016) states that the presence of women veteran mentors aids in the management of unconscious bias for women novice mentors.

A barrier that has been encountered for both men and women mentors is that communication complications have arisen during the initial stages of their mentoring relationship (Hamilton, Stevens, & Girdler, 2016). Specifically, the communication complication was part of the process of getting to know each other and identifying expectations of the mentoring relationship (Hamilton et al., 2016). This communication complication resolved itself over time (Hamilton et al., 2016). In addition to the communication complication, mentors experienced anxiety as they initially attempted to identify and define their role and what the mentees' needed from them (Hamilton et al., 2016). This anxiety was amplified if there was no training for the mentor before being assigned a mentee (Rowe-Johnson, 2018).

Research has established that mentors in senior positions are often comprised of men (Allen & Dumani, 2017). These men may be tentative and cautious about becoming a mentor to a woman mentee for several reasons (Allen & Dumani, 2017). The recent incursion of men in positions of power and influence being charged with sexual and emotional abuse by women has created unintended consequences for women who need mentors when women mentors are limited (Grant-Kels, 2018). Some male mentors are apprehensive about mentoring (and even hiring) women (Grant-Kels, 2018). This is because some male mentors fear that their actions, while innocent, might be misunderstood or misconstrued and thus potentially harm their career (Grant-Kels, 2018). Because of these unintended consequences, women potentially lose opportunities for mentoring as well as lose opportunities for advancement and employment

(Grant-Kels, 2018). In one specific study, it was determined that there are men who tended to hire only men in open positions because of the fear of being misunderstood or wrongly accused by women (Grant-Kels, 2018). This is a barrier that affects women mentees because it could theoretically disallow opportunities for the women mentees to progress further in the organization (Allen & Dumani, 2017).

Research has also established that there are women mentees who prefer women mentors over men mentors for several reasons (Rees, Monrouxe, & McDonald, 2015). In one study, men mentors were quoted as asking for sexual favors and making lewd comments about genitalia (Rees et al., 2015). In another study, women mentees stated that while men mentors may add value to their development, they preferred to have a woman mentor (Rees et al., 2015). This was because they felt that women mentors understood more of the challenges that other women must deal with in their careers (Nottingham et al., 2017). Women mentees appreciate mentors who are cognizant of the different experiences of women and who understand the unique challenges that occur (Dawson, Bernstein, & Bekki, 2015).

**Self-determination theory.** The self-determination theory is a theory of social motivation which states that humans have three rudimentary psychological needs and these three needs vary in the extent of self-determination (Larsson et al., 2016). These three needs are autonomy, competence, and relatedness (Larsson et al., 2016). These three psychological requirements promote inclination among human beings to explore and participate in situations that are expected to nurture their emotional needs (Larsson et al., 2016). The self-determination theory focuses on environments that obstruct or that facilitate the need for satisfaction (Schüler, Sheldon, Prentice, & Halusic, 2014). An important aspect of the environment is the encouragement and sponsorship provided by individuals that are higher in the societal

hierarchies to people who are lower in the societal hierarchies, such as mentors to mentees in the workplace (Schüler et al., 2014). This is described as providing mentees with choices for behaviors, listening to mentee perspectives, providing reasonable rationales for policies and procedures, and communicating in a style that is not controlling or domineering (Schüler et al., 2014).

The self-determination theory characterizes two distinct categories of motivation in individuals: extrinsic motivation and intrinsic motivation (Larsson et al., 2016). Mentors can inspire both extrinsic and intrinsic motivation (Larsson et al., 2016). Extrinsic motivation is defined as the desire to perform an assignment or task with the intent of attaining positive incentives or to prevent negative outcomes (Larsson et al., 2016). An example of how a mentor can inspire extrinsic motivation is through guidance and sponsorship on promotion and advancement opportunities which could result in salary increases, bonuses, and other gratuities (Kuvaas et al., 2017). An example of intrinsic motivation is when a mentor leads a mentee to work vigorously on difficult assignments or tasks for the mentee's inherent satisfaction (Kuvaas et al., 2017). This work is performed by the mentee even when there is no pressure to perform the difficult task or to obtain any reward for completing the task (Carr & Walton, 2014).

Motivation to engage as a woman mentor and a woman mentee can be recognized in terms of the self-determination theory approach (Carr & Walton, 2014). Studies have been performed on the self-determination theory that indicates that women mentors engage with women mentees because of the pleasure and satisfaction they get out of mentoring (Carr & Walton, 2014).

Women mentors do not typically engage in mentoring because of pressure from their management to perform the required task (Carr & Walton, 2014). This is indicative that many women mentors are intrinsically motivated (Carr & Walton, 2014). Women establish mentoring

relationships because the activity is inherently rewarding and satisfying to them (Larsson et al., 2016).

**Autonomy.** Autonomy is experiencing one's own choices and deciding one's activities and actions (Larsson et al., 2016). Schüler et al., (2014) defined autonomy as the aspiration to experience choice and emotional freedom. Further, autonomy is a necessary provision for human prosperity and success. The self-determination theory argues that the need for autonomy articulates a universal individual struggle: to attain greater choices and superior self-ownership in their lives (Schüler et al., 2014). While the need for autonomy articulates a universal individual struggle, these struggles are not all to the same extent for everyone (Schüler et al., 2014). Autonomy may have different meanings depending on gender (Schüler et al., 2014). A woman's position within the workplace aids in the determination of her sense of identity, self-assurance, and confidence (Schüler et al., 2014). Women leaders who are empowered, compassionate, and protective are excellent role models for other women mentees (Eustace, 2018).

**Competence.** Competence is experiencing success in tasks that are challenging and being able to influence one's desired outcomes (Larsson et al., 2016). A recent article on the most influential women in the world cited competence and connecting with people as the most key factors to being successful in the workplace (Larsson et al., 2016). In numerous situations, women, as compared to men, are more approachable and more capable of connecting and relating with others to the workplace (Larsson et al., 2016). This has been attributed to their competence and success in the workplace (Larsson et al., 2016). Women leaders who are competent and approachable are excellent role models for women mentees (Walsh, 2016).

**Relatedness.** Relatedness is experiencing connection, mutual respect, caring, and reliance on relationships with others (Larsson et al., 2016). It is the need to feel connected to

significant others (Larsson et al., 2016). In this context, relatedness concerns those individuals who are part of the workplace environment and includes the mentor relationship (Schüler et al., 2014). In the context of a mentoring relationship, relatedness is the personal interaction between the mentor and the mentee (Schüler et al., 2014). There are many aspects of relatedness (Schüler et al., 2014). These aspects include authenticity, acceptance, the ability to listen, presence, understanding and compassion (Cray, 2016). These aspects of relatedness encourage positive results of the mentoring relationship (Cray, 2016).

**Motive disposition theory.** The motive disposition theory uses the concept of individual needs to aid in the explanation of individual motivation, behavior, and personality (Schüler et al., 2018). This theory overlaps greatly with the self-determination theory concerning the nature and encroachment of the differences in individuals (Schüler et al., 2018). Both approaches presume that individuals differ in their need to relate socially, to feel competent, and their need for autonomy (Schüler et al., 2018). One of the largest differences between the two theories is the motive disposition theory concept of inherent motives as longings that are acquired through social connections (Schüler et al., 2018). In the motive disposition theory, it is presumed that individuals acquire implicit motive dispositions by learning them in early childhood and differ in motive strength because of the many diverse learning experiences (Schüler et al., 2018). In later years, implicit achievement motivated people to prefer tasks that allow them to strive for standards of excellence to feel competent and successful (Schüler et al., 2018). Feedback from mentors on mentee performance assists the mentees in their feelings of competence and success (Schüler et al., 2014). In the context of mentoring relationships, understanding the implicit motive dispositions of a mentee encourage positive results in the relationship between the mentor and the mentee (Cray, 2016). Research on the motive disposition theory converged on three

implied motive dispositions that are expected to be central to the description and explanation of human behavior and happiness (Cray, 2016). These are the implicit achievement motive, the implicit affiliation motive, and the implicit power motive (Schüler et al., 2018).

**Implicit achievement motive.** One of the three implied motive dispositions is the implicit achievement motive (Schüler et al., 2018). This is a persistent concern with exceeding excellence standards (Schüler et al., 2018). Individuals differ in the degree to which their goals are allied with their implicit motives (Schüler et al., 2018). For example, individuals may attempt to achieve their goals even though their actual implicit achievement motive is low on an unconscious level (Schüler et al., 2018). When there is an incongruence of motive and goal achievement, a realization of goals is associated with little to no well-being (Schüler et al., 2018). Contrary to this, the well-being of those individuals whose implicit motives and goals are congruent is considered strong and effective (Hofer & Busch, 2017).

**Implicit affiliation motive.** The second of the three implied motive dispositions is the implicit affiliation motive (Schüler et al., 2018). This is the desire to attain and preserve established and pleasant interpersonal relationships (Schüler et al., 2018). Individuals with a strong implicit affiliation motive tend to achieve tasks acceptably at assignments that bring them social endorsement (Schüler et al., 2018). Individuals with a strong implicit affiliation motive also tend to do well on tasks that require cooperation and collaboration with other people (Schüler et al., 2018). However, their achievements deteriorate when faced with competitive tasks (Strick & Papies, 2017).

**Implicit power motive.** The third of the three implied motive dispositions is the implicit power motive (Schüler et al., 2018). This is the concern to persuade and control others (Schüler et al., 2018). The implicit power motive signifies the motivation of individuals to have a

behavioral or emotional impact on others (Strick & Papies, 2017). Individuals with a high implicit power motive have a desire to influence, dominate and impress others (Strick & Papies, 2017). Individuals with a high implicit power motive respond positively to others whose faces signal submissiveness (Stoeckart, Strick, Bijleveld, & Aarts, 2017).

**Mentoring enactment theory.** The mentoring enactment theory suggests that veteran leaders, the mentors, may not automatically accept a novice leader initially but rather accept the novice leader after a series of interactions and the establishment of a relationship at which time the veteran leader determines that the novice leader is or is not worthy of the resources and time necessary to build and maintain a successful mentoring relationship (Curtis & Taylor, 2018). Without the establishment of consistent perceptions of the relational behaviors by both the mentor and the mentee, a successful mentoring relationship between a mentor and mentee may not be possible (Curtis & Taylor, 2018). This is a potential explanation of why mentoring relationships are not explored or are explored but are not deemed successful between veteran and novice women leaders (Curtis & Taylor, 2018). Relational behaviors include appreciation, safety, tasks, courtesy, wit, and goals (Curtis & Taylor, 2018). Non-relational behaviors result in a lack of participation in the mentoring relationship and ultimately an unproductive and ineffective mentoring process (Mansson & Myers, 2012).

**Relational behaviors.** During the initiation stage of a mentoring relationship, the mentee begins to have high regard and great respect for the mentor as the mentee witnesses the mentor's competence and proficiency for guiding and supporting the mentee (Mansson & Myers, 2012). Guidance and support are two highly expected mentoring functions from the viewpoint of the mentor as well as the mentee (Mansson & Myers, 2012). Relational maintenance behaviors are the expectation in a successful mentoring relationship as suggested by the mentoring enactment

theory (Mansson & Myers, 2012). Curtis and Taylor (2018) added that the mentoring enactment theory suggests that mentors may not automatically accept a mentee initially but rather accept the mentee after a series of interactions and the establishment of a relationship at which time the mentor will determine if the mentee is or is not worthy of the resources and time necessary to build and maintain a successful mentoring relationship (Curtis & Taylor, 2018). Without the establishment of consistent perceptions of the relational behaviors by both the mentor and the mentee, a successful mentoring relationship between a veteran woman leader and a novice woman leader may not be possible (Curtis & Taylor, 2018). This is a conceivable explanation of why mentoring relationships are not explored or are explored but are not considered successful between veteran and novice women leaders (Curtis & Taylor, 2018).

Allen and Dumani (2017) state that mentors may create a series of challenges for the mentee to determine initial performance and perceptions of the mentees before determining that the mentoring relationship will be successful and beneficial to both the mentor and the mentee. In this situation, the mentor is searching for mutual satisfaction and relational effectiveness before devoting time and resources to the mentee (Allen & Dumani, 2017). Snoeren et al. (2016) further state that the author of the mentoring enactment theory understood that a successful mentoring relationship relied on personal relationships between the mentor and the mentee. Expectations between the mentor and the mentee must be identified and communicated for the mentoring relationship to be successful (Snoeren et al., 2016). When a mentoring relationship is successful, the use of a mentor can provide career-enhancing opportunities as well as psychosocial benefits (Snoeren et al., 2016).

Successful mentoring relationships can potentially provide career-enhancing opportunities for the mentee (Snoeren et al., 2016). One such career-enhancing opportunity that

successful mentoring can result in is the establishment or augmentation of networking opportunities (Snoeren et al., 2016). Mentors can bring numerous additional networking opportunities that may not be available to the mentee without the introduction from the mentor (Snoeren et al., 2016). Effective networking can aid in the building of strong relationships with influential individuals who have the potential to help a mentee progress in their career (Snoeren et al., 2016). Networking can also the mentee with a level of support, collaboration and trust that may not otherwise have been possible without the help and introduction by the mentor (Phillips & Ellinas, 2014).

Other career-enhancing opportunities that a mentor can provide to a mentee include increasing competence in the mentee's position, increasing employability, increasing motivation, and improving communication skills (Jeong, Irby, Boswell, & Pugliese, 2018). Mentoring also generates benefits within an organization for which the mentor and mentee work concerning organizational changes, organizational effectiveness, employee retention, and increased learning within the organization (Jeong et al., 2018). Mentoring supports both the professional as well as the personal development of the mentee in an advantageous and privileged fashion (Jeong et al., 2018). Mentoring is synonymous with the facilitation of socialization and career achievement (Grima, Paillé, Mejia, & Prud'homme, 2014). Outcomes of successful and career-enhancing mentoring relationships also include team building and team learning (Lunsford, 2016).

An equally important aspect of mentoring is furnishing the psychosocial support a mentee needs to counteract the stress, discouragement, and disappointments that some mentee's experience (Dawson et al., 2015). Psychosocial support from a mentor includes providing encouragement and emotional support to the mentee, being receptive to the mentee's perspectives and philosophies, and providing guidance at a personal and individual level

(Dawson et al., 2015). Women mentees appreciate mentors who are cognizant of the different experiences of women and who understand the unique challenges that occur (Dawson et al., 2015). Mentees receive several psychosocial benefits from a positive mentoring experience (Dawson et al., 2015). The psychosocial benefits include, first, role modeling, second, mentor acceptance, third, confirmation, fourth, sponsoring, and fifth, friendship (Dawson et al., 2015). When a mentor provides psychosocial support to a mentee, the mentee is encouraged, which shields the mentee from feeling isolated and helps to protect the mentee from stress-induced disorders and damaging physical symptoms (Searby, Ballenger, & Tripses, 2015).

**Nonrelational behaviors.** Without the establishment of consistent perceptions of the relational behaviors by both the mentor and the mentee, a successful mentoring relationship between a mentor and mentee may not be possible (Curtis & Taylor, 2018). Additionally, social skills, or the ability to effectively interact with others, allow mentors and mentees to present themselves in a favorable light which is crucial in the development of a relationship (Curtis & Taylor, 2018). Mentors and mentees with strong social skills are typically more pleasant and more successful at initiating and maintaining quality relationships (Curtis & Taylor, 2018). An effective and successful mentoring relationship is potentially able to develop when the mentor and the mentee have strong social skills (Curtis & Taylor, 2018). Without strong social skills, a dysfunctional relationship is a more probable scenario (Meinecke & Kauffeld, 2018).

Nonrelational behaviors also include those instances where adequate women leaders are just not available to mentor other women (Dzubinski, 2014). In certain businesses, men still outnumber women in executive and principal leadership positions (Dzubinski, 2014). While there have been repeated demands for greater diversity, certain businesses and organizations still embrace a view that favors men in positions of leadership (Dzubinski, 2014). According to

Corbell (2016), having veteran women leaders mentor novice women leaders, specifically in businesses with general-role stereotypes, provides the boost novice women leaders need to change the status quo. This cannot occur however when women leaders are not available to mentor novice women leaders (Corbell, 2016).

Another nonrelational behavior is the absence of a mentorship program for women in leadership positions (Cross et al., 2019). When mentorship is not a part of professional development, this leaves newly appointed leaders feeling isolated and discouraged (Cross et al., 2019). When mentors are just not available, the effect on the career development and personal benefits of the mentee is limited (Cross et al., 2019). Novice leaders benefit greatly from a trusted leader who can help guide them in numerous and various situations (Cross et al., 2019). When there is an absence of a mentoring program available for women in leadership positions, there is a probability that the mentee's maximum potential is not reached (Wang & Wang, 2017).

**Statistics on gender mentoring.** Numerous studies have been performed on the importance of mentoring (O'Bannon, 2018). Because there are typically more men in leadership positions than women, the studies have concentrated on men on men and men on women mentoring relationships (O'Bannon, 2018). There are not as many studies that have explored the effects of women on women mentoring relationships (O'Bannon, 2018). There are many reasons for this (O'Bannon, 2018). In many businesses today, less than half of novice women leaders seek out senior women leaders as mentors (O'Bannon, 2018). There is less than 44% of instances of women leaders enlisting in a mentor relationship with other women in leadership positions even though mentor relationships improve the success of leaders and help assure organizational growth and improvement (Hume, 2016). However, while 45% of firms in the accounting industry use mentors for building and developing leaders, generally less than 21% of

the leaders are women and only 9% of these women utilize mentors to help them succeed in their leadership roles (O'Bannon, 2018).

While evidence is accruing that the number of women is increasing in the science and engineering curriculums, there is a higher percentage of women that are not completing the programs than men (Dawson et al., 2015). It has been determined that the reason for this is because of the lack of availability of a dedicated mentor for these women (Dawson et al., 2015). In a recent study, over 86% of women who left these programs acknowledged that there was a lack of guidance and sponsorship as a reason for their decision to leave (Dawson et al., 2015). However, women who obtained mentoring during their college experience in these curriculums completed their degree at a rate of 100%, compared to 60% among women who did not receive mentoring during their college experience (Dawson et al., 2015). This is consistent with another study of women in the science and engineering curriculums that found that women professionals benefit from mentors that provide both support and encouragement (Dawson et al., 2015). Mentors provide psychosocial support as well as career development advice (Dawson et al., 2015). As a result of this study, the recommendation was made to develop programs that were "women-only" since women acquire knowledge through the stories of other women's successes and struggles (Dawson et al., 2015). "Women-only" development programs also provide a safe environment for women to interact regarding developmental feedback and other personal exchanges (Van Oosten, Buse, & Bilimoria, 2017).

Women minorities, specifically African American and Hispanic women, are the least recruited members of the population of individuals in the science and engineering careers (Alfred, Ray, & Johnson, 2019). In the U.S. population of working-age men and women, 51% of Caucasian men and 20% of Caucasian women were employed in 71% of the science and

engineering occupations (Alfred et al., 2019). Twelve percent of Asian men and 5% of Asian women represented 17% of the occupation population (2019). Three percent of African American men and only 2% of African American women represented 5% of the occupation population (Alfred et al., 2019). Hispanic participation is similar to African American participation (Alfred et al., 2019). Hispanic men account for 4% of the occupation participation while Hispanic women account for only 2% for a 6% total participation (Alfred et al., 2019).

Women of color continue to remain underrepresented in many technical industries (Lunsford, 2016). When an evaluation was performed on the contributing factors of the underrepresentation of women of color in the science and engineering occupations, it was determined that the lack of access to mentors was a crucial factor (Alfred et al., 2019). Additionally, the lack of women mentors for the women of color was specifically cited as a reason for the lack of women of color in the science and engineering occupations (Alfred et al., 2019). Women of color who participate in mentoring relationships, both in college and within the workplace, that are effective and positive relationships, aids in the establishment of these women in the science and engineering occupations and helps provide for career development and advancement (Alfred, et al., 2019). Women-on-women mentoring programs that embrace diversity aids in the identification of their values and goals for the achievement of their personal and professional goals through the mentoring program (Lunsford, 2016).

**Training.** There are several aspects of training to develop mentoring relationships within the workplace (Rowe-Johnson, 2018). The first aspect of developing mentoring relationships is the training of the mentor (Rowe-Johnson, 2018). Many mentors are selected based on their knowledge of a specific trade rather than on their training as a mentor (Rowe-Johnson, 2018). Without the necessary training for mentorship, a mentor may not have the training required to be

successful in the mentoring relationship (Rowe-Johnson, 2018). Another aspect of mentor training within the workplace is in onboarding (Das & Kodwani, 2018). Onboarding is typically training on generic policies and procedures that all new hires must learn upon entry into a new company (Das & Kodwani, 2018). Some companies assign mentors to new hires to help with the onboarding process (Das & Kodwani, 2018).

**Mentor training.** Mentors are essential in the professional development and advancement of their mentees (Rowe-Johnson, 2018). Skillful mentors are considered respected role models that demonstrate professional conduct for their mentees (Rowe-Johnson, 2018). However, mentors are seldom trained on how to be a successful mentor (Rowe-Johnson, 2018). Mentor training is being developed however as more companies see the benefit of mentoring (Rowe-Johnson, 2018). One specific mentor training program contains nine sessions (Rowe-Johnson, 2018). Each session focuses on a topic that was derived from cross-disciplinary sources on the practice of effective mentoring (Rowe-Johnson, 2018). These sessions include an introduction, expectations, professional development information, communication, inclusion, understanding, independence, ethics, and philosophy (Rowe-Johnson, 2018). The developers of an online training program for mentors, called CARES, disseminated self-paced training modules to help mentors support and better the motivation of their mentees (Weber-Main, Shanedling, Lapsitis, & LaGuardia, 2019). This online module is engrained in the self-determination theory (Weber-Main et al., 2019). This training identifies an ideal mentoring environment as one that provides support and understanding for the mentees' psychological needs for relatedness, competence, and autonomy (Weber-Main et al., 2019).

**Onboarding training.** Many organizations have specific training requirements for new hires (Abdallah, 2017). Often this training consists of basic policies and procedures that are

“read and affirm” in their entirety and do not consist of face-to-face training (Abdallah, 2017). In some instances, individuals who have been hired in a leadership capacity will have mentors assigned to them to help with the individual’s onboarding and acclimation process (Abdallah, 2017). Mentors who can understand, connect, motivate, and develop these new hires are an asset to both the company and the mentee (Abdallah, 2017). Assigning mentors to new hires allows the mentees to voice their concerns, ask questions, and have someone to converse with when needed (Das & Kodwani, 2018). Without this, a new hire can feel neglected and abandoned which can result in high turnover, unsustainability and a nonproductive environment (Das & Kodwani, 2018).

**Biblical integration.** A Christian mentor acknowledges that the support of a mentee, experience in mentoring, analysis of a mentee’s development, and structure of a mentoring relationship are not principally for the mentoring participants. Rather, mentoring is ultimately for the continuance of the kingdom of God and the restorative ministry of Jesus (Talone, 2013). In a study of Christian mentors, both male and female, to ex-felons, the mentors were trained to recognize the importance of role modeling to the individuals (Leary, 2018). Their primary purpose for mentoring was not just to help these individuals integrate back into the community, but to communicate the love of God and the grace of God to their mentees (Leary, 2018). The mentoring program also trained the mentors to communicate the forgiveness of God and the grace that allows a new life in Christ (Leary, 2018).

There are many definitions of what a mentor is and what a mentoring relationship should be. Often, however, it is important to also look at the definition of what a mentor and what a mentoring relationship should not be. Mentoring should not entail the misuse of power or influence over other people (MacLennon, 2017). The Bible states that we are made in the image

of God, which brings holiness to life, and requires respect of persons (Genesis 1:27, King James Version). Mentors should not try to manipulate or negatively influence their mentees. Mentors should also not use their mentees for their rewards and incentives. Mentors should be trusted advisors and guides because central to the Christian belief is truth and encouraging other people. The Christian Golden Rule, found in Luke 6, verse 31, states that people should treat other people as they would like themselves to be treated. This is a concept that all mentors should follow (MacLennon, 2017).

Another goal of mentoring from a Christian perspective can be found in the advice of Paul (Colossians 4:6, KJV). Paul wrote to the faithful in Colosse that all conversation should be filled with grace and seasoned with salt so that we may know how to answer everyone (Colossians 4:6). Another Christian perspective of mentoring can be found in Ephesians 1:17. In this verse, Paul asks God for the spirit of wisdom and revelation. One objective in mentoring is to act as a role model, to act wisely and to make wise choices (MacLennon, 2017).

A primary objective of mentoring from a Christian perspective is to facilitate others to acquire the knowledge and skills necessary to fulfill God's purpose for his followers. Beckwith (2016) states that the purpose of business is to serve God and to provide for the continuance of God's kingdom. For this to occur, businesses must be sustainable to fund the continuance of God's kingdom. Leaders of each business must work cohesively with others to collectively pursue the corporate good and God's ultimate purpose. To be a successful leader, mentorship may be needed from other more experienced leaders who can provide wise counsel and impart a means to the novice leader of viewing the organization that makes logical sense for sustainability (Cawley & Snyder, 2015).

Bunkers and Hegge (2018) call mentoring the giving of blessings. Positive and successful mentoring relationships can transform individuals, professions, and communities (Bunkers & Hegge, 2018). An example of a positive and successful Christian mentor is Florence Nightingale (Bunkers & Hegge, 2018). Nightingale traveled with 38 other nurses to the Crimean War to care for soldiers who were wounded in the war (Bunkers & Hegge, 2018). Nightingale trained and mentored these 38 nurses to care for the suffering soldiers (Bunkers & Hegge, 2018). Nightingale's purpose in her mentoring was to model the care of the soldiers as if she was treating Jesus Christ himself (Bunkers & Hegge, 2018).

Christian mentoring can help individuals to become who and what they were intended to be by God (Bunkers & Hegge, 2018). The ideal mentor training is based on Biblical principles. These include treating other people concerning unconditional regard, modeling the love of God to all, and encouraging the mentee to persist (Leary, 2018). Christian mentoring also involves keeping confidentiality, creating a covenant arrangement between the mentor and the mentee (Leary, 2018). This arrangement should include the purpose, agenda, frequency, and length of the meetings (Leary, 2018). This should aid in the mentoring relationship resulting in wholeness for the mentee and mentee flourishing (Leary, 2018). It should not result in manipulation or a relationship that is dictatorial or dogmatic (Leary, 2018).

While the ideal Christian mentor follows Biblical principles, the fall of man affected all aspects of life. After the fall of man, physical death, hard labor, and distorted relationships occurred (Genesis 3:15-19). Likewise, mentoring can be affected and influenced by distortion, fractional knowledge and incorrect presuppositions (Leary, 2018). A Christian mentoring relationship should be conditioned with agape love and righteousness. However, it can become

tainted by authoritarian viewpoints or exercising power, self-interest, egotism, and desire for reputation (Leary, 2018).

Christian mentors are encouraged to prepare for a mentee meeting with prayer and meditation. Mentees are encouraged to prepare for a meeting with a mentor with a prayer for grace and a productive outcome, receptiveness, and a willingness to acquire knowledge (MacLennon, 2017). At the start of each meeting, the mentor and mentee are encouraged to pray together at the start of the meeting to ask for God's wisdom and purpose (MacLennon, 2017). It is also important to have clear goals, an agreed-upon agenda, and a review of the previous meeting (Leary, 2018). Once this is accomplished, exploration and development of new skills, knowledge, understanding, attitudes, and behaviors can be addressed. The mentor should then check for understanding and then together agree on the next actions. Finally, the mentor and mentee should agree to an agenda for the next meeting, identify the time, place and duration of the next meeting (Leary, 2018).

### **Transition and Summary of Section 1**

Mentoring provides many advantages which include enhanced business, organizational success, and improved leadership competence (Alvarez & Lazzari, 2016). More importantly, positive and effective mentoring allows the sustaining of businesses that provide for and allow the continuance of the kingdom of God and the restorative ministry of Jesus (Talone, 2013). While women are becoming more engaged in leadership positions within the business industry, there are not always other women available to mentor those women who are considered novice leaders within the industry (Nottingham, Mazerolle, & Barrett, 2017). Studies have shown that veteran women leaders can be positive role models and mentors to novice women leaders because there can potentially be many more compatible similarities and histories between two women in a mentoring relationship than a man-woman mentoring relationship (Nottingham et

al., 2017). It can be very difficult for men mentors to relate to a woman mentee about the challenges and burdens of a woman's career while also providing the primary care-giving of a family (Nottingham et al., 2017). The focus of this qualitative collective case study will focus on the business problem of the lack of mentoring relationships among women leaders despite the many advantages of a positive and effective mentoring relationship (Nottingham et al., 2017).

This qualitative research will consist of a collective case study. This will allow exploration of information obtained from the experiences and perspectives of women leaders and how mentoring with other women leaders have affected their success, growth, and leadership development in the nuclear vendor industry (Creswell & Poth, 2018). This will also allow exploration of information obtained from the experiences and perspectives of women leaders and how the lack of mentoring with veteran women leaders potentially affected their success, growth, and leadership development in the nuclear vendor industry (Creswell & Poth, 2018). This qualitative research collective case study is significant because it will contribute to the body of knowledge associated with leadership mentoring theories and the application of those theories to women in leadership positions. This study will explore the mentorship of women leaders in local nuclear vendor facilities at both the novice and veteran level.

A conceptual view of this research indicated mentoring enactment theory was applicable to address the research questions of the study. Mentoring enactment theory suggests that individuals engaging in mentoring relationships have similar perceptions of the relational behaviors that are prevalent to initiate and maintain a successful mentoring relationship (Mansson & Myers, 2012). One of the benefits of a woman mentor being paired with a woman mentee is that there can potentially be many relational and compatible similarities and histories between the two women (Nottingham et al., 2017). Women mentees appreciate that women

mentors are aware of the different experiences and unique challenges that occur in women's careers (Dawson et al., 2015). Similar relational behaviors and compatible similarities are indicators of a positive and healthy mentoring relationship (Dawson et al., 2015).

Mentoring is ultimately for the continuance of the kingdom of God and the restorative ministry of Jesus (Talone, 2013). The purpose of this qualitative collective case study is to add to the body of knowledge of the mentoring relationships among women leaders in a technical industry by exploring the mentoring experiences, or lack thereof, and the perception of women on mentoring who are or have been in leadership positions. Positive and successful mentoring relationships aid in the continuance of the kingdom of God and the restorative ministry of Jesus. Mentoring of veteran women leaders by novice women leaders helps to assure that the next generation of women leaders is successful in their leadership roles. Successful women leaders may aid in the sustaining of businesses which helps provides funds and resources to the continuance of God's kingdom.

## **Section 2: The Project**

The Project contains elements of the application of the information provided in the Foundation of the Study in Section 1. Included in this section is the purpose of the study, the role of the researcher, and a description of the participants. A discussion is provided on the research method and the research design used for the study. Information is included on the rationale for the use of the chosen research method and the use of the chosen research design. A description of the population from which the participants were chosen is also provided. In addition to the description of the population, justification is provided on the sampling method, the sample size and type, eligibility criteria for the participants, and the relevance of characteristics of the sample utilized. This information then leads to a discussion on the instruments of the study, data collection and organization techniques, data analysis, qualitative reliability, and validity. Lastly, a summary of Section 2 is provided as well as an overview of Section 3 which is the application to professional practice and implications for change.

### **Purpose Statement**

The purpose of this qualitative collective case study is to add to the body of knowledge of the lack of mentoring relationships among women leaders in a technical industry by exploring the mentoring experiences, or lack thereof, and the perception of women on mentoring who are or have been in leadership positions. The collective case study will provide an extensive analysis of the mentoring relationships and the effect mentoring has on enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016). The collective case study will also provide an analysis of the lack of mentoring relationships among novice women leaders and the effect that the lack of mentoring has on business and organizational success and leadership competence (Alvarez & Lazzari, 2016). The larger problem is explored through a collective case study of mentoring activities in the workplace.

The collective case study will explore an in-depth study of women leaders, both novice and veteran, and the effect mentoring, or lack thereof, may have affected their success, growth, and leadership development in the nuclear vendor industry in Central Virginia. The collective case study will also explore the perception that senior women leaders who mentor novice women leaders contribute to the novice leader's self-confidence, communication skills, and problem-solving skills (Jakubik, 2015).

### **Role of the Researcher**

The increasing profusion of client-driven data has resulted in the creation and use of tools that can mine, amass and interpret information (Moon, 2015). This presents remarkable opportunities in research. The role of the researcher has been postulated to be minimized with the development of these tools (Moon, 2015). The expanding amount of data only provides researchers with generalizations. Researchers are still needed for the recruitment of participants in the research study, to question the participants about the events surrounding the research, and to question the participants about their emotions associated with the research (Moon, 2015). Researchers take systematic notes of what is said during the interviews, document observations, what is of interest, and any problems encountered during the interviews (Pagan, 2019). The notes of the researcher serve as a recording function as well as transformative and revelatory functions for the production and analysis of the empirical information (Pagan, 2019). The role of the researcher is to provide meaningful insights from the gathered data which is something that a tool cannot readily do (Moon, 2015).

The researcher is the primary mechanism for data collection in the qualitative research study (Rimando et al., 2015). There are numerous roles of the researcher before the data collection process. One of the first roles of the researcher is to strive to establish and to validate the decisions to perform the research study (Dresch, Lacerda, & Miguel, 2015). Upon

identification of the research gaps recognized in the literature and identification of the research questions, the role of the researcher is to analyze the potential approaches and to select the approach that is the most appropriate, the most useful and the most effective to address the research questions (Dresch et al., 2015). The researcher must clearly state the research design and method for use in the study. The researcher must then be able to justify the use of the selected research design and method for use in the study (Dresch et al., 2015).

The role of the researcher is to identify and contact the participants of the study, to conduct interviews and to administer surveys. In a qualitative research study, the researcher must design an interview guide, determine how to formulate the questions in the interview, and remain focused on the specific research topic during the interview process (Rimando et al., 2015). Interviews of the participants in the study are conducted face-to-face by the researcher in a manner that is amorphous to allow the participants the freedom to discuss their thoughts, emotions, and experiences (Dresch et al., 2015). The role of the researcher in the interview process is to use open-ended questions to allow for discussion, further inquiry, and to extract understanding of the topic of the study (Dresch et al., 2015). Once adequate data is obtained from the study, the role of the researcher is to then analyze the data and provide meaningful insights from the data (Moon, 2015).

### **Participants**

The Human Resource Directors and their delegates of two local nuclear industry vendors identified individuals that could potentially be requested to participate in the study. The criterion was provided to the Human Resource Directors for the identification of the participants. The criterion stated that individuals involved in the study must be female, must be in a leadership position, or must have been in a leadership position in the past. Women who have never been in

leadership positions were not chosen for this study. This is because this study is specifically exploring veteran woman leaders mentoring novice women leaders.

Wallace and Sheldon (2015) state that four ideologies are comprising the ethical conduct of research. These ideologies include research merit and integrity, justice, beneficence, and respect (Wallace & Sheldon, 2015). Research merit and integrity is the concept that the intended research is valid and justifiable, is designed to ensure respect for the participants, and is ultimately conducted with integrity (Wallace & Sheldon, 2015). Justice is the ideology that the process of the recruitment of the participants is reasonable and fair, there is no mistreatment or manipulation of participants, and the results of the research are made available to the research participants (Wallace & Sheldon, 2015). Participant perceptions of justice are based on observations and assessment of the researcher (Karam et al., 2019).

There is a reciprocal relationship between the researcher and perceptions of justice by the participants (Karam et al., 2019). Beneficence is when the benefits of a research study outweigh the risks. In this ideology, the research participants have the benefits explained to them and the wellbeing of participants is of utmost concern (Wallace & Sheldon, 2015). Lastly, respect is the ideology that the privacy, confidentiality, culture sensitivities, and decision-making of the research participants are held in extreme regard (Wallace & Sheldon, 2015). While the respect ideology is identified as the last of the four ideologies of ethical research, it is by no means the least important. Studies have shown that respect ranks as the highest prerequisite of research participants (Rogers & Ashforth, 2017).

For this research study, extreme care will be taken to ensure the confidentiality of the study participants and their responses. Each of the participants and their responses will be identified with a unique code. All information provided by the participants will be stored in a

password protected program that will not be made publicly available to anyone outside of the research review. Recordings of interviews, transcripts and notes will be stored in a password protected program for three years after the approval of the research study. Upon three years after the approval of the research study, the protected information will be destroyed.

The environment of the interviews will be in a location that is neutral, quiet, and closed (Rimando et al., 2015). Bottled water will be made available to the participants before the interview process. To help build a positive relationship with the participants, and to help instill trust, an icebreaker before the interview will be conducted (Rimando et al., 2015). Holbert (2015) states that purposefully constructed icebreakers are used as tools for cultivating positive interdependence that is essential for trust and cooperative relationships. This will also help to destress and relax any participant that may be anxious about the interview (Holbert, 2015). To help ensure fatigue does not occur during the interview process, 30 to 60-minute respites between interviews will be conducted (Rimando et al., 2015).

### **Research Method and Design**

The research method and design chosen for this study is the qualitative collective case study. Qualitative research was chosen to allow the personal experiences, perceptions, and emotions of the participants to be explored to help refine the research topic (Klenke, 2015). Since this method of research relies primarily on individual perception and understanding based on an individual's life experiences, qualitative research was more acclimated for this study than the quantitative design (House, 2018). The collective case study was chosen to explore the experiences and thoughts of numerous women leaders who have been mentored, or who have not had the opportunity to be mentored, by veteran women leaders. The collective case study research design involves a researcher exploring an event or topic by obtaining information through the use of observations and the use of interviews (Creswell & Poth, 2018). A collective

case study was chosen for this research topic because there exists a gap regarding mentoring relationships among women leaders regardless of the advantages which include greater business success, improved organizational success, and enhanced leadership competence (Alvarez & Lazzari, 2016).

**Discussion of method.** Research is a systematic exhaustive study of a matter to discover new or additional information or to reach a new or additional understanding (Gupta & Awasthy, 2015). Before performing any type of research, it is important to understand the purpose of the research and to identify the questions that will guide the research (Gupta & Awasthy, 2015). It is also important to identify the resources that are available to support the research and the criteria that will be used to assess the quality of the discoveries (Gupta & Awasthy, 2015). Societal reality can be approached differently among researchers and thus distinct positions are taken as reflected in the choices of methodology and design. Diverse elements of qualitative research are impelled by the diverse scholarly domains (Prasad, 2017). For example, a researcher in the anthropology arena will direct qualitative research differently than a researcher in the accounting arena (Prasad, 2017). Additionally, the foundation on which researchers accomplish their study depends on their societal reality, or rather their ontological and epistemological views (Gupta & Awasthy, 2015). The result is a multifaceted combination of descriptions, paradigms, practices, and procedures that are predominantly unified by their nonstatistical emphasis, all aligning under the classification of qualitative research (Prasad, 2017).

Ontology is the study of existence, or being, with assumptions that are concerned with what comprises reality (Gupta & Awasthy, 2015). Researchers undertake their study with one of two philosophies. An open-world view of ontology presumes that the world is continually in the process of altering, of changing (Tsoukas, 2017). The other philosophy of ontology is that the world is hard and concrete with exact and detectable limits (Tsoukas, 2017). A researcher with

a philosophy of ontology that the world is precise and discernible will perform their research differently than a researcher with an open-world view of ontology (Gupta & Awasthy, 2015).

Epistemology is the study of knowledge (Gupta & Awasthy, 2015). A researcher's epistemological position mirrors the outlook of what they perceive about the universe and how it was learned (Gupta & Awasthy, 2015). As with ontology, there are also two major philosophies in epistemology. The first major philosophy of epistemology is that understanding of society infers a need to grasp and chart the societal structure which gives rise to positivism (Alsharari & Al-Shboul, 2019). With this philosophy, an emphasis is placed on the world as it is realistically observed (Alsharari & Al-Shboul, 2019). The second major philosophy of epistemology is that understanding of society infers a need to grasp the societal structure with an emphasis that is entrenched in nature (Alsharari & Al-Shboul, 2019). This philosophy encourages a concern for a subjective form of knowledge rather than deterministic observations (Alsharari & Al-Shboul, 2019). A researcher with a theory of epistemology that the world is deterministic will perform their research differently than a researcher with an epistemology theory of subjectivity (Gupta & Awasthy, 2015).

The qualitative research method utilizes the interview process as the prevailing means of understanding a topic or an event from an individual's perspective (Dowling, Lloyd, & Suchet-Pearson, 2016). Interviews are used to understand interpretations, experiences, and the many-dimensional aspects of real-life situations (Dowling et al., 2016). Qualitative research customarily progresses inductively from obtaining data to the development of theory (Reinecke, Arnold, & Palazzo, 2016). Using this progression, qualitative research can explore areas and queries where quantitative research would struggle to devise hypotheses or obtain adequate data (Reinecke et al., 2016). Qualitative research gives a "voice" to the participants of the research

rather than through the lens of conceptual categories and theories forced by the researchers in quantitative research (Reinecke et al., 2016).

Qualitative research analysis strives to capture the depth and richness of individual experiences in the words of the participants (Klenke, Martin, & Wallace, 2016). The collection and organization of the data involve the discovery of patterns, qualities and themes found in the interviews, notes, and transcripts (Klenke et al., 2016). Qualitative assessment criterion must allow for the various and diverse philosophical allegiances that underlie any qualitative research design (Symon, Cassell, & Johnson, 2018). Understandably, research from different philosophical perspectives may vary significantly in the outcomes that may ultimately have the quality of the research placed into question. Criteria to establish the validity and reliability of the research include assuring audits are performed that allow assessors to review the research and to judge the rigor of the research and the concluding results (Symon et al., 2018). Additionally, the concluding results of the research should be reviewed to assure the results are credible, transferable, dependable, and confirmable (Symon et al., 2018).

**Discussion of design.** The research design for this qualitative research method is a collective case study. The use of the case study represents one of the most established qualitative research designs to develop and test theories (Runfola, Perna, Baraldi, & Gregori, 2017). The qualitative case study has been defined as a firsthand inquiry that explores a current phenomenon within the context of real-life occurrences (Runfola et al., 2017). A collective case study is when multiple sources of evidence are used (Runfola et al., 2017). The collective case study design allows exploration and decisive analysis rather than a simple assessment of the event or phenomenon, thus suitable for this study (Arghode & Wang, 2016). The collective case study is also appropriate when the objective is to compare and evaluate several comparable cases

(Arghode & Wang, 2016). Further, the collective case study design provides multiple and various perspectives that broaden the facets of the study adding vigor and imparting clarity to the phenomenon under research (Arghode & Wang, 2016).

The collective case study research design is based on empirical analyses where multiple participants and evidence are utilized to investigate a real-life phenomenon (Larrinaga, 2017). In many instances, case studies are utilized when the boundaries between the phenomenon and actual circumstance are not distinctly evident (Larrinaga, 2017). The detail and vigor of a case study research design aids in the understanding of the research (Alpi & Evans, 2019). The detail and vigor of a case study research design also aid in the determination of whether the conclusions are applicable beyond the setting established by the research (Alpi & Evans, 2019). Numerous methods may be utilized to the data of a case study depending on the research questions and the approach utilized by the researcher to answer the questions (Wilson, 2016).

**Summary of research method and design.** The qualitative research method was chosen for this study to explore the participants' individual experiences, perceptions, and emotions for the refinement of the research topic (Klenke, 2015). This method of research relies on individual perception and understanding based on life experiences (House, 2018). The collective case study was chosen to explore the experiences and thoughts of various women leaders who had or had not, been mentored by veteran women leaders. The collective case study research design involves a researcher exploring an event or topic by obtaining information using observations and interviews (Creswell & Poth, 2018). A gap exists in the literature regarding mentoring relationships among women leaders regardless of the advantages which include greater business success, improved organizational success, and enhanced leadership competence (Alvarez & Lazzari, 2016). A collective case study was chosen for this research topic because it provides

multiple and various perspectives that broaden the facets of the study adding vigor and imparting clarity to the phenomenon under research (Arghode & Wang, 2016). The collective case study is also appropriate when the objective is to compare and evaluate several comparable cases (Arghode & Wang, 2016).

### **Population and Sampling**

The population for this qualitative research collective case study includes all the women leaders employed in the nuclear vendor facilities in Lynchburg, Virginia. There are approximately 30 women leaders employed at the three nuclear vendor locations in Lynchburg, Virginia. Convenient sampling will be employed to determine the sample size of the participants in the study. For inclusion in the study, participants must be women, and must currently be in a leadership position, or must have been in a leadership position in the past. The sample size is a minimum of ten participants which will allow data saturation as well as allow for a depth of inquiry within the interviews.

**Discussion of Population.** Population, in the context of research, is defined as an entire unit that meets the criteria for a study (McEvoy, 2018). From the population, a representative sample is taken for detailed exploration (McEvoy, 2018). There is no formula for correctly defining a population to be studied (McEvoy, 2018). Because there is no formula for correctly defining the population, careful consideration must be made of the research question(s) to be answered (McEvoy, 2018). Upon identification of the research questions, defining the population of concern is necessary to identify the sampling method or to obtain information from the sample. The need to accurately define the population allows generalizations to be made of the population from the data, or information, which is gathered. Accurately defining the larger population allows the researcher to reliably generalize the sample information to the larger population (Sowey & Petocz, 2017).

The population for this qualitative research collective case study includes all the women leaders employed in the nuclear vendor facilities in Lynchburg, Virginia. Three nuclear vendor locations in the research area will be included in the population. For this study, both novice and veteran women who have held leadership positions, either currently or in the past, will be invited to participate in the study. The age of the women invited to participate in the study is not a criterion for the study. The size of the organization for which the women lead is also not a criterion for the study. The primary criterion is that the participant must be a woman and must either currently be a leader or have been a leader at some time in the past.

**Discussion of Sampling.** A proper sample is one that is an appropriate representation of the target population to be studied (McEvoy 2018). The sample should be considerable enough that the prospect of finding differences between the participants by chance is minimal and the prospect of detecting accurate and meaningful differences is prominent (Patino & Ferreira, 2016). The number of participants included in the sample should not be so great that resources are misused, and information derived is not adequate in detail (Patino & Ferreira, 2016). It is essential to perform a sample size calculation during the study design phase (Patino & Ferreira, 2016). To address this calculation, key characteristics of the study must be defined, such as the research design, the ultimate objective, the anticipated variability, and the extent of certainty preferred (Patino & Ferreira, 2016). A proper sample closely complements the important characteristics of the larger population (McEvoy, 2018). To address the proper means of sampling, it is important to understand the many different forms of sampling methods including purposive, convenience, random, or stratified, to name a few.

**Purposive sampling.** Purposive sampling is the collection of a small sample that is laden with information (Serra, Psarra, & O'Brien, 20128). Selection of the sample in purposive

sampling consists of obtaining samples that are well-known, well-informed and specific (Serra et al.). In qualitative research, a large sample of the target population may undermine the ability to accomplish a comprehensive analysis (Ames, Glenton, & Lewin, 2019). The more data a researcher produces can potentially undermine the depth and magnitude extracted from the obtained data (Ames et al., 2019). Purposive sampling in a research study is one means of achieving a controllable quantity of data (Ames et al., 2019). Purposive sampling is not as prevalent as other sampling methods but it is more suitable in certain instances such as when the target population is small (Serra et al., 2018).

**Convenience sampling.** Convenience sampling is a sampling of participants in a convenient, or easily reachable, location (Paik & Shahani-Denning, 2017). Convenience sampling has often been referred to as accidental sampling and even haphazard sampling (Paik & Shahani-Denning, 2017). This type of sampling is non-probabilistic and is used when the research study is not as concerned with the generalizations of an entire population (Paik & Shahani-Denning, 2017). Convenience sampling is often used in dissertations and theses primarily because of expedience (Brewis, 2014). Additionally, the use of convenience sampling that is generated from personal networks appears to be commonly used (Brewis, 2014). Convenience sampling is typically suitable when researchers seek to build theory and where generalization is of secondary interest (Brewis, 2014).

**Random sampling.** Random sampling consists of the concept of an equal opportunity for each participant in the targeted population to be selected for the study (Schilling & Neubauer, 2017). Traditional opinion maintained that researchers should distinguish a random sample from a targeted population to generalize the study findings to the targeted population (Spekle & Widener, 2018). To help assure randomness of the selection of a participant, random number

tables have been developed for use in the selection of the sample (Schilling & Neubauer, 2017). The numbers established in random number tables were developed to represent the output of an authentic random process helping assure the randomness of the selection (Schilling & Neubauer, 2017). The resulting selected sample is, therefore, an accurate representation of the population in that every participant in the population had an equal chance of being selected (Schilling & Neubauer, 2017). Spekle and Widener (2018) state that achieving a truly random sample can be difficult unless the sample and population are both known and the allocation of characteristics in the entire population is uniformly reflected in the chosen sample.

**Stratified sampling.** Stratified random sampling is an efficient and widely used sampling technique in economic and business surveys to estimate many parameters (Khan, Reddy, & Rao, 2015). Stratified sampling aids in the improvement of a representative sample by breaking a group into further subgroups that share relevant characteristics (McEvoy, 2018). When compared to random sampling, a stratified sample is selected as the sampling method to obtain a closer estimate of the targeted population (McEvoy, 2018). While not a complete certainty, stratified sampling may prevent the potential of overrepresentation or underrepresentation of significant subgroups (McEvoy, 2018). In stratified sampling, samples are divided into non-interrelating groups, or strata, such that the strata formed are homogeneous which maximizes the accuracy of the data (Khan et al., 2015).

**Other sampling methods.** Other sampling methods, although not as popular, include systematic sampling, cluster sampling, and quota sampling. Systematic sampling is the method of selecting every kth item from a sequence or list (McEvoy, 2018). When performing systematic sampling, the researcher must first decide the frequency of the sample (Waller, 2016). The frequency should correspond to a pattern to assure no bias occurs in the data (Waller, 2016).

Cluster sampling is comparable to stratified sampling with the exception that the data gathered using cluster sampling is governed by specific geographic areas (McEvoy, 2018). In cluster sampling, the targeted population is separated into clusters or groups, and then each cluster is randomly sampled (Waller, 2017). Quota sampling is used where there is an explicit target size to evaluate (Waller, 2017). In quota sampling, the population is segregated according to a specific criterion, such as age, race, or gender for example (Waller, 2017).

The sampling method to be used in this qualitative research collective case study is convenience sampling. Convenience sampling will be used because the participants to be included in the sampling method are employed at facilities that are located at convenient sites to the researcher (Paik & Shahani-Denning, 2017). There is ample evidence that convenience sampling is appropriate for the study at hand because of expedience (Brewis, 2014). Additionally, convenience sampling will be generated from personal networks which are commonly used in this sampling method (Brewis, 2014). Convenience sampling is also suitable when seeking to build theory and where generalization is of secondary interest which is the situation for this study (Brewis, 2014).

**Summary of population and sampling.** The population for this qualitative research collective case study includes the women leaders employed in the nuclear vendor facilities in Lynchburg, Virginia. The population of women leaders employed at the three nuclear vendor locations in Lynchburg, Virginia, is defined. Convenient sampling will be used to determine the sample size of the participants in the study. For inclusion in the study, the criterion of the participants include they must be women, and the women must currently be in a leadership position or must have been in a leadership position in the past. The sample size is a minimum of

ten participants which will allow data saturation as well as allow for a depth of inquiry within the interviews.

### **Data Collection**

Data collection is a progression of interrelated actions aimed at obtaining information to answer evolving research questions (Cypress, 2018). The data collection method for this qualitative research study is the use of one-on-one interviews. With a minimum sample size of ten participants, large quantities of data will be generated. To help assure the data collected is accurate and precise, an audio-recording device will be used in addition to handwritten notes (Sutton & Austin, 2015). The audio recordings will be transcribed before data analysis (Sutton & Austin, 2015).

The primary instrument of data collection for this qualitative research collective case study is the researcher (Rimando et al., 2015). Three primary attributes allow the researcher to be the primary instrument in qualitative research. These attributes are the ability to observe, the ability to recruit, and the ability to analyze (Xu & Storr, 2012). The secondary instrument for data collection is the Interview Guide located in Appendix A. The interview questions identified within the Interview Guide are designed to explore the research questions located in Section One of this study.

The data collection technique for the collective case study includes the identification of the population of participants for this study. From the population, a sample size will be selected that will assure data saturation as well as allow for a depth of inquiry. The technique used to collect data will be face-to-face interviews with audio recording. The data organization technique will include the use of unique codes to identify each study participant which will then be put into a database along with a summary of the basic elemental information of each

participant. Open coding and creative open coding will also be used in the data organization stage to aid in the data analysis stage.

**Instruments.** The increasing profusion of consumer-driven data has directed the development and implementation of tools that can extract and assemble the information obtained (Moon, 2015). This information typically only provides generalizations about the data (Moon 2015). As such, there is a heightened emphasis on qualitative research regarding the role of the researcher in the qualitative research process (Cassell, Cunliffe, & Grandy, 2019). In qualitative research, the researcher is the primary instrument for data collection in a qualitative research study (Rimando et al., 2015). The researcher is the primary instrument for data collection in a qualitative research study for three primary attributes (Xu & Storr, 2012). These three attributes are the ability to observe, the ability to recruit, and the ability to analyze (Xu & Storr, 2012).

An important attribute of the qualitative researcher as an instrument is the ability to observe (Xu & Storr, 2012). Observation requires researchers to use their perceptions and impressions to comprehend the language of the research participants and to ascertain explicit mindfulness of details (Xu & Storr, 2012). For an observation to be beneficial in qualitative research, it must be systematic (Angrosino, 2016). This means that observation must be carefully conducted with precise documentation that will allow efficient retrieval, classification, and analysis of the information obtained (Angrosino, 2016). The objective of observation in qualitative research is to acquire the central flow of daily experience (Angrosino, 2016). Observation assists the objective of identifying patterns, perceptions, trends, and classifications that are seen as meaningful in the flow of daily experiences (Angrosino, 2016).

Another attribute of the qualitative researcher as an instrument is that the researcher is the primary means for data collection. (Xu & Storr, 2012). In qualitative research, the researcher

recruits participants for the research study (Xu & Storr, 2012). The researcher determines how the participants are recruited and makes the decisions, both before and during the interview process, on how they may need to alter the Interview Guide based on how each interview progresses (Xu & Storr, 2012). The researcher determines the flexibility with the interviews and whether to delve further into certain questions and potentially even eliminate interview questions (Xu & Storr, 2012). The researcher manages how silence during the interview is handled, deals with overlapping talk, copes with interruptions, and determines the quality of responses (Xu & Storr, 2012). The researcher also determines how to alter the interview technique for a more favorable process and determines how to improve the interview technique (Xu & Storr, 2012). The researcher also negotiates their relationship with the research participants to enhance the interview process (Hansman, 2015). To negotiate and navigate relationships with the research participants, the qualitative researcher must be insightful and conscious of who they are themselves as this is the lens that the researcher sees the participants in the study (Hansman, 2015).

Another important aspect of the qualitative researcher as an instrument is the researcher's ability to analyze data after it is obtained (Xu & Storr, 2012). Researchers obtain in-depth and detailed data throughout the interview process (Hansman, 2015). Data analysis of the detailed data occurs in stages, the first of which occurs during the initial interview process (Saxena, 2017). The analysis starts with the initial interviews and a repetitive process of continual interchange between the researcher and research participant (Saxena, 2017). Successive interviews are informed by the initial interviews and a constant assessment is performed to aid the researcher in an analysis of whether rephrasing of any of the questions is necessary for the subsequent interviews (Saxena, 2017). The next stage of analysis is performed while the

researcher is transcribing the interview data (Saxena, 2017). This stage allows the researcher to identify themes, trends, and potential relationships among the participant responses (Hansman, 2015).

A secondary instrument for data collection is the Interview Guide. The Interview Guide is an important instrument in supporting the researcher's ability to ask questions germane to the research topic (Pedersen, Delmar, Falkmer, & Grønkjær, 2015). The Interview Guide helps to provide consistency in the interview process and functions as an instrument that connects the research problem and research questions (Pedersen et al., 2015). The interview questions are structured to allow flexibility to enable the researcher to ask follow-up questions depending on the responses of the participants (Kallio, Pietilä, Johnson, & Docent, 2016). One of the main advantages of a semi-structured Interview Guide is that it allows reciprocity between the researcher and the participant (Kallio et al., 2016). The Interview Guide for this qualitative research study is located in Appendix A.

The first question in the Interview Guide is typically introductory or opening (Pederson et al., 2015). Questions following the introductory or opening question may be probing, prompting, specifying, interpreting, or contributing to structuring the interview (Pederson et al., 2015). The objective of the Interview Guide and its implementing questions is to generate answers from the participants that are spontaneous, in-depth, unique, and vivid (Kallio et al., 2016). Participant answers to the Interview Guide questions are meant to reflect the participant's personal feelings and experiences and potentially produce data allowing the emergence of new concepts (Kallio et al., 2016). Descriptive answers from participants will be encouraged, where applicable, by beginning questions with words such as who, what, when, where, how or why (Kallio et al., 2016).

The Interview Guide consists of two levels of questions: the primary themes and follow-up questions (Kallio et al., 2016). The primary themes cover the main content of the research subject (Kallio et al., 2016). Within the primary theme questions, participants will be encouraged to speak openly about their opinions and experiences (Kallio et al., 2016). Every participant will be questioned on the primary themes (Kallio et al., 2016). Follow-up questions, probing questions, or prompting questions will be used to support elaboration and explanation (Doody & Noonan, 2013). Probing and prompting participants is a means for the researcher to refine a participant's response to an interview question by utilizing concentrated follow-up questions (Doody & Noonan, 2013).

The interview questions located in the Interview Guide were generated to address the research questions identified in Section One of this research study. Research question RQ1 from Section One explores the role mentorship by senior women leaders play in the success, growth and leadership development of novice women leaders in the nuclear vendor industry in Central Virginia and investigates the difficulty in finding such mentors. Interview questions in Part A of the Interview Guide address research question RQ1. In Part A, questions 1 through 4, inquiries are made regarding the establishment of a mentoring relationship and initial perceptions and views. Question 5 queries the leadership style of the mentor, the effects on the mentee, and the relationship with the mentee. Questions 6 through 8 seek to address how the relationship generally affected the participant and their recommendations to other potential mentees.

Research question RQ2 from Section One explores the perception of novice women leaders who choose senior women leaders as their mentors. This question also seeks to understand why some novice women leaders do not participate in a mentoring relationship with veteran women leaders. Questions 9 and 10 seek to address the potential lack of opportunity or

lack of willingness for novice women leaders to participate in a mentoring relationship with a veteran woman leader. Questions 11 through 15 explore the participants' perception of a mentoring relationship and how it may or may not have affected their positions, organization or business. Question 16 seeks to understand how the perceptions and views of the participants affect the potential for their staff to seek mentoring relationships with veteran women leaders.

**Data collection techniques.** The data collection technique for the collective case study includes the identification of the population of participants from the nuclear vendor facilities in Lynchburg, Virginia. The potential participants to be included in the study must be female, must be in a leadership position, or must have been in a leadership position in the past. Women who have never been in leadership positions were not chosen for this study since this study is specifically exploring veteran woman leaders mentoring novice women leaders. Because of the low population, invitations to participate in the study will be sent to the entire population. This invitation, via electronic mail, will include a brief introduction of the researcher and a summary of the research intent to help assure the potential participant understands the purpose of the research.

Upon determination of the number of willing participants, a convenient sample will be selected to assure an adequate number of participants are chosen. The sample size is a minimum of ten participants which will allow data saturation as well as allow for a depth of inquiry within the interviews. Weller et al. (2018) state that probing and prompting during interviews are more important than the actual number of interviews. Further, a small sample size with extensive prompting or probing can result in the collection of the majority of the salient concepts (Weller et al., 2018).

Upon identification of the convenient sample, a meeting request will be set up with each participant at a location that is convenient and private to the participant. A synopsis of the research, confidentiality statement and length of the meeting will be included in the meeting request. Because there are three nuclear vendor locations in Central Virginia, site visits may be required depending on the location of the participant. The technique used to collect data will be face-to-face interviews with audio recording. In the unlikely event that a face-to-face meeting is not possible due to a participant's schedule, a Skype meeting will be held with the participant with audio recording at the participant's convenience.

Interview questions are predetermined and structured with flexibility to allow for prompts to delve further into applicable areas as needed. Interview questions used to obtain the data are identified in the Interview Guide located in Appendix A. These interview questions will answer the research questions identified in Section One. All data will be collected without personal distinguishing information to assure confidentiality. Each of the participants and their responses will be identified with a unique code. All information provided by the participants will be stored in a password protected program that will not be made publicly available to anyone outside of the research review. Information obtained during the interviews will be stored in a password protected program for three years after the approval of the research study. Upon three years after the approval of the research study, the protected information will be destroyed.

**Data organization techniques.** Data organization is the process of understanding the nature of the data that has been collected and making the data useful for research purposes (Wells & Chiang, (2017)). Before obtaining the data from the participants for this research study, each of the participants will be identified with a unique code. This will facilitate subsequent analysis of the data. A database will be used to summarize the rudimentary elements

of each interview such as the date, start time, end time, location, etc. The summary will be updated after each interview (Farooq & de Villiers, 2017).

The participant interviews will be transcribed, and each line of the transcript numbered. The content of the participant interviews will then be coded. Eker and Zimmerman (2016) state that coding of written data is often used with the grounded theory approach; however, it is also useful with case studies. There are two forms of coding according to Eker and Zimmerman (2016): open coding and axial coding. Open coding involves the organization of data into sections for comparison and categorization into patterns and themes (Eker & Zimmerman, 2016). Further, creative open coding, such as written notes, footnotes on prominent observation, instances of silence or apprehension, will also be used during the participant interviews (Pederson et al., 2015). Axial coding involves systematically connecting categories to sub-categories to form tiered links (Eker & Zimmerman, 2016). Open coding and creative open coding will be used in this qualitative research study.

**Summary of data collection.** In qualitative research, data collection is used to answer the identified research questions (Cypress, 2018). In this research study, the data collection method will be the use of one-on-one interviews. A minimum sample size of 10 participants will be included in the research study. Handwritten notes and an audio-recording device will be used to assure the data obtained is accurate and easily transcribed (Sutton & Austin, 2015). The primary instrument of the data collection is the researcher (Rimando et al., 2015). The secondary instrument for data collection is the Interview Guide located in Appendix A. The interview questions identified within the Interview Guide are designed to explore the research questions located in Section One of this study. The data organization technique will include the use of unique codes to identify each study participant and a database to summarize the basic

information of each participant. Open coding and creative open coding will also be used in the data organization stage to aid in the data analysis stage.

### **Data Analysis**

An important aspect of qualitative data analysis is the use of ascribing significant attributes, or codes, that aid researchers in the engagement of a variety of analytic practices (Wicks, 2017). The analytic practices include the ability to detect patterns, categorization, and theory development (Wicks, 2017). Eker and Zimmerman (2016) state that coding of written data is often used with the grounded theory approach; however, it is also advantageous with case studies. Two forms of manual coding according to Eker and Zimmerman (2016) are open coding and axial coding. Automated coding of open-ended text data is also an option for manual coding (Downer, Wells, & Crichton, 2019).

**Open coding.** Open coding involves the organization of data into sections for comparison and categorization into patterns and themes (Eker & Zimmerman, 2016). Open coding techniques comprise grouping together those concepts or statements that seem to be similar (Alhassan, Sammon, & Daly, 2018). The open coding process involves breaking down the content, carefully examining the content for comparison and conceptualization and then categorizing the data (Alhassan et al., 2018). Open coding allows the identification of zero-order coding categories that comprise the actual language used by the participants in the study (Zahay, Sihi, Muzellec, & Johnson, 2019). Further, creative open coding, such as written notes, footnotes on prominent observation, instances of silence or apprehension, is also used during participant interviews (Pederson et al., 2015). Open coding will be used with the interview transcripts to address the research questions identified in Section One.

**Axial coding.** A two-phase coding process may be used with open coding followed by axial coding (Piercy & Rich, 2015). In a two-phased approach, open coding is first used to

identify similarities and consistencies (Eker & Zimmerman, 2016). The use of axial coding involves systematically connecting the categories established during the open coding process to sub-categories to form tiered links (Eker & Zimmerman, 2016). When using axial coding, first-order and second-order developed categories further drive third-order categories to aid in addressing the established research questions (Zahay et al., 2019). This process tends to be an iterative process with categorization potentially taking weeks to aid in the assurance of reliability and validity (Piercy & Rich, 2015).

**Translation guidelines.** When using manual coding techniques, it is necessary to delineate specific translation guidelines to help assure the consistency and reliability of the coding process (Alhassan et al., 2018). There are four guidelines for this collective case study. The first guideline is that all interview transcripts will be read completely. Secondly, imperative verbs will be established to indicate significance within each of the interviews (Alhassan et al., 2018). The concepts of the interviews will then be compared to identify similarities (Alhassan et al., 2018). Lastly, after each of the interviews have been coded, the concepts and similarities that emerge from the interviews will be further categorized (Alhassan et al., 2018).

**Automated coding.** Automated coding tools aid in the elimination of human error and variability. Automated coding can be used to produce models that are simpler to update over time than a manual coding approach generally produces (Downer, Wells, & Crichton, 2019). Two examples of automated coding aids are Q's text analysis and Google Cloud Natural Language (Downer et al., 2019). Both tools "read" the written text and identify occurrences of specific and similar words (Downer et al., 2019). These tools can also identify participant sentiment by scoring specific words with numbers. Depending on the numbers assigned and calculated by the tool, an interpretation is made on the overall attitude of the participant (Downer

et al., 2019). The use of automated coding tools can be costly and, although considered an innovative approach compared to manual coding, errs where human judgment is needed such as in more accurate identification of participant sentiment (Babu, 2017).

**Data analysis technique for research study.** Upon completion of the coding of the interviews, a Microsoft Excel spreadsheet will be developed to adequately and accurately review and apply the coding analysis process (Alhassan et al., 2018). The coding process will be designed with pertinent fields needed to calculate effects and conduct the required analyses. Coded fields will include personalized and generalized data as well as notation of the similarities and consistencies of written text (Abreu-Ledon, Lujan-Garcia, Garrido-Vega, & Escobar-Perez, 2018). The potential use of an application programming interface is identified as IBM's Expert System service, also known as Watson (Cassidy, 2019). This tool offers natural language processing and data analysis capabilities that are simple to use and faster than manual coding (Cassidy, 2019).

**Summary of data analysis.** Data analysis is the use of ascribing significant attributes, or codes, that aid researchers in the engagement of a variety of analytic practices (Wicks, 2017). The analytic practices include the ability to detect patterns, categorization, and theory development (Wicks, 2017). Open coding and axial coding are often used to code written data, such as those used in research study participant interviews (Eker & Zimmerman, 2016). Automated coding is also available for coding of open-ended text or written data (Downer et al., 2019). While automated coding can aid in the elimination of human error and variability, the aspect of human judgment is omitted which is a detriment to automated coding (Babu, 2017). For the qualitative research study identified in Section One, open coding will be used with the use of Microsoft Excel and IBM's Expert System known as Watson. Reliability and Validity

When performing a qualitative research study, the research must be accomplished with the utmost quality. To aid in the assurance that the research is of superior quality, the attributes of reliability and validity must be addressed (Noble & Smith, 2015). Attention to the attributes of reliability and validity in qualitative research is imperative because of the potential subjectivity by the researcher to obscure the interpretation of the gathered data and where the research findings may be suspected or viewed with disbelief or uncertainty (Cypress, 2017). Evaluating the reliability of a research study requires researchers to formulate judgments regarding the soundness of the research concerning the appropriateness of the methods used, the application of the methods, and the integrity of the conclusions (Noble & Smith, 2015). Reliability is based on the consistency of the procedures utilized, taking into account any biases that may be present, and the replicability of the study (MacPhail, Khoza, Abler, & Ranganathan, 2016). The reliability of a qualitative research study helps to establish the creditability of the conclusions of the research (MacPhail et al., 2016). Validity is the precision of which the conclusions of the study accurately reflect the gathered data (Noble & Smith, 2015). Reality and validity are vital concerns in qualitative research (Klenke, Martin, & Wallace, 2016).

**Reliability.** An exhaustive description of the research process that permits intersubjectivity is indicative of sound quality when using the qualitative research methodology (Cypress, 2017). Reliability is established through consistency and attention in the application of the research procedures (Cypress, 2017). This is exhibited in the visibility of the research processes, analyses, and results, and which is mindful of the potential partiality and the limits of the research results (Cypress, 2017). Klenke, Martin, and Wallace (2016) state that, when applied to qualitative research, reliability is the extent to which study conclusions are consistent, repeatable, and trustworthy. For research studies to be considered reliable and credible, four

primary issues must be addressed (Klenke et al., 2016). First, the theoretical position of the researcher must be addressed (Klenke et al., 2016). Next, the similarity between the method and the methodology must be addressed (Klenke et al., 2016). Stratagems utilized to establish both rigor and quality, and the analyses used to examine the data must also be addressed (Klenke et al., 2016). The principal question of reliability concerns the procedure for achieving truthful interpretation (Omanovic, 2019).

The theoretical position of the researcher is an important aspect to be addressed in the reliability of both qualitative and quantitative research studies (Klenke et al., 2016). The life experiences, personal learning, and encounters of a researcher can influence the research study process (Omanovic, 2019). Researchers make fundamental decisions about the topic of study, the research questions, the literature review, and their methodological perceptions that subsequently affect the collection of data, interpretation of the data, and the analyses of the material (Omanovic, 2019). Cassell, Cunliffe, and Grandy (2018) state that the decisions made by researchers are not just about the choices regarding the research itself but rather are more about the identity of the researcher. A researcher's life experiences, personal learning, and encounters emerge in a research study via the decisions that are made during the study (Omanovic, 2019). This can create a challenge as well as contradictions for the research study as the researcher's previous knowledge and new knowledge may conflict (Omanovic, 2019). The theoretical position of the researcher affects how and why the research study was fashioned in the manner that it was fashioned (Omanovic, 2019).

Another aspect to be addressed in the reliability of a qualitative and quantitative research study is the similarity between the method and the methodology (Klenke et al., 2016).

Reliability is illustrated by the uniformity within the analytical procedures that are used for the

research study (Noble & Smith, 2015). Qualitative researchers seek to design and incorporate processes to help assure the consistency between the method and the methodology (Noble & Smith, 2015). One means of this form of design is through the use of accurate and detailed records (Noble & Smith, 2015). Additionally, researchers may maintain a “decision trail” for transparency to reveal that their decisions are clear, evident, and uniform (Noble & Smith, 2015).

Qualitative research studies must be conducted with great rigor because of the possibility of subjectivity that is characteristic in qualitative research (Cypress, 2017). In this context, rigor is defined as the strength of the qualitative research study design and the relevance of the method to answer the research questions (Cypress, 2017). Cypress (2017) suggests that reliability and validity have been replaced with the notion of “trustworthiness.” Trustworthiness insinuates that the research is built upon quality, legitimacy, and truthfulness in the findings of the qualitative study (Klenke et al., 2016). Trustworthiness also relates to the extent the research reviewers have trust and confidence in the results (Klenke et al., 2016).

To help assure the research data is captured uniformly and methodologically, consistent guidelines must be used by the researcher (Cypress, 2017). For this study, an Interview Guide will be used to increase reliability and to ensure consistency in the data collection from each participant. Basic and follow-up questions will be asked to allow the participant to generate a complete response to each question. Repeatability and consistency of the study are observed when the data yields the same results across numerous instances (Creswell & Poth, 2018). Data saturation will occur when the collected data yield similar and consistent results such that new data is consistent with the collected data (Klenke et al., 2016). For this qualitative research collective case study, a minimum of ten interviews and a maximum of fifteen interviews will be conducted with the expectation that data saturation will be achieved after 30% of the interviews

are completed. Coding, the process of analyzing the research data and documenting consistent and recurring themes, will be used in this qualitative research study (Klenke et al., 2016).

The convergence of consistent and recurring themes in a research study from multiple sources is called data triangulation (Maiti & Sanyal, 2017). Data triangulation is utilized for optimum authentication of the results (Maiti & Sanyal, 2017). The term triangulation is derived from the navigation field where several points of observation assist in the determination of a location (Natow, 2019). Triangulation is especially important in qualitative research that involves interviews to obtain a more complete depiction of the issue being investigated (Natow, 2019). There are several ways that researchers can triangulate data (Natow, 2019). For this qualitative research, the researcher will utilize multiple data sources by obtaining data from various locations and different perspectives (Natow, 2019).

**Validity.** The validity, in qualitative research, entails ascertaining the extent to which researchers' claims are in agreement with the participants' reality (Klenke et al., 2016). Validity is the guarantee that the research is correct and that the gathered data are true and accurate depictions of the researched phenomenon (Kihn & Ihantola, 2015). Validity in research also refers to the credibility of the study regarding its development and legitimization to reviewers and readers of the research (Kihn & Ihantola, 2015). Time spent by the researcher with the study participants aids in the validation of the research (Creswell & Poth, 2018). This is due to the narratives developed through the analysis and the proximity of the researcher to the study participants (Creswell & Poth, 2018).

Validation of the processes within qualitative research may be performed by assuring construct validity, internal validity, and external validity (Welch & Piekkari, 2017). The measure between the observable "construct" and the fundamental concept is recognized as

construct validity (Black, Carvalho, Khanna, Kim, Yurtoglu, 2017). Construct validity is confirmation of the consistency between the research study and its measurement (Welch & Piekkari, 2017). Construct validity characterizes the extent to which a study measures what it was designed to measure (Braun & Kuljanin, 2015). This consists of the use of multiple and various sources of evidence as well as creating a chain of evidence (Welch & Piekkari, 2017).

Internal validity is the assurance of the establishment of a relationship between cause and effect (Welch & Piekkari, 2017). Internal validity signifies the validity of causal relationships (Tan, 2019). Establishing causality, or rather internal validity requires correlation (Tan, 2019). Internal validity consists of matching patterns within the research data and building explanations of the data (Welch & Piekkari, 2017). Internal validity also involves the interpretation of the dynamics of the relationships (Welch & Piekkari, 2017).

External validity is the specification of the domain in which the conclusions of the research study may be generalized (Welch & Piekkari, 2017). External validity is considered replication logic, such as in multiple case studies, and includes a comparison of the existing literature (Welch & Piekkari, 2017). External validity refers to the validity of the generalization of the data beyond the sample (Tan, 2019). Tan (2019) states that generalization across multiple cases and the implementation of control factors may be a challenge when utilizing case studies. Tan (2019) further states that a standardized survey may overcome the disadvantages of a case study, however, that requires the presumption that the survey replaces the researcher when responding to the survey questions.

**Summary of reliability and validity.** A qualitative research study must be accomplished with the highest of quality. To do this, the attributes of reliability and validity must be addressed (Noble & Smith, 2015). This requires researchers to formulate judgments

regarding the soundness of the research concerning the appropriateness of the methods used, the application of the methods, and the integrity of the conclusions (Noble & Smith, 2015).

Reliability is based on the consistency of the procedures utilized, considering any biases that may be present, and the replicability of the study (MacPhail, Khoza, Abler, & Ranganathan, 2016). Validity is the precision of which the conclusions of the study accurately reflect the gathered data (Noble & Smith, 2015).

### **Transition and Summary of Section 2**

The Project contains elements of the application of the information provided in the Foundation of the Study in Section 1. Section 2 summarizes the purpose of the study, the role of the researcher, a description of the participants, and a discussion on the research method and the research design used for the study. Information is also included on the rationale for the use of the chosen research method and the use of the chosen research design. A description of the population from which the participants were chosen is provided in addition to justification on the sampling method, the sample size and type, eligibility criteria for the participants, and the relevance of characteristics of the sample utilized. This information then leads to a discussion on the instruments of the study, data collection and organization techniques, data analysis, qualitative reliability, and validity.

Section 3 is the application to professional practice and implications for change. An overview of the study is provided in Section 3 as well as a presentation of the findings and conclusions that address the research questions. Section 3 addresses the data and the bounding of the data by the evidence collected. Section 3 also relates the findings to a larger body of literature on the topic. Discussion of outliers and discrepancies found in the gathered data is additionally included. Recommendations for action and recommendations for further study are addressed in Section 3. Included in this section are reflections on the researcher's experience

with the research process. Lastly, a summary of the research and the study's conclusions are discussed.

### **Section 3: Application to Professional Practice and Implications for Change**

Section 3 of this qualitative research study is the application to professional practice and implications for change. This section provides comprehensive information on the findings and conclusions that address the research questions. The data and bounding of the data by the evidence collected are addressed. The results of the study as it relates to a larger body of literature on the specified topic is addressed. Discussion of outliers and discrepancies found in the gathered data is additionally included. Recommendations for action and further study are also addressed. Reflections on the researcher's experience with the research process are also included in this section. Lastly, a summary of the research and the study's conclusions are discussed.

#### **Overview of the Study**

The qualitative research case study was intended to answer the research questions posed in Section 1 to add to the body of knowledge regarding mentoring relationships among women leaders in a technical industry by exploring the mentoring experiences and the perception of women on mentoring who are or have been in leadership positions. To obtain women's perceptions of mentoring relationships among women leaders, interviews were performed using the Interview Guide established in Appendix A. Women who were invited to participate in the research study were selected from convenience sampling. The participants were employed at facilities located at convenient sites to the researcher as well as from personal networks. The women leaders who participated in a mentoring relationship when they were initially promoted to a leadership position answered 23 questions regarding their mentoring experiences, the relationships established with their mentors, barriers encountered during their mentoring, and how the barriers were overcome. During the interviews, participants also addressed the influence their mentors had on their leadership style and abilities as well as their influence their

mentors had on the growth of their organization and overall business success. The women leaders who did not participate in a mentoring relationship when they were initially promoted to a leadership position answered eight questions regarding their lack of mentoring experiences. Additional probing questions were asked to obtain further information from the participants when applicable.

Upon evaluation of the data, multiple themes became apparent that contribute to the body of knowledge regarding mentoring relationships among women leaders in a technical industry. Additionally, the multiple themes support the research questions posed in Section 1. The apparent themes comprised the following:

- Preference for informal mentorship. Novice women leaders prefer informal mentorship over formal mentorship because they have a choice in the selection of their mentor.
- Empowerment. Novice women leaders felt empowered when mentored by veteran women leaders.
- Perspective. Novice women leaders felt that veteran women leaders provided novice women leaders' a perspective that veteran men leaders could not provide in a male dominant industry.
- Openness. Novice women leaders felt that they could be more open with veteran women leaders when discussing how to address situations arising with difficult staff within their organizations.
- Consideration of emotions. Novice women leaders felt more comfortable discussing issues involving emotions with veteran women leaders than with veteran male leaders.

- Camaraderie and respect. Novice women leaders felt a comradery with veteran women leaders regarding their personal and professional lives, specifically those who had comparable personal experiences providing primary care to children while maintaining a full-time leadership position within the industry.

One additional theme that emerged from the study but that was not specifically in alignment with the specified research questions included:

- Specific veteran male mentoring: Novice women leaders appreciate a male leader's perspective when dealing with issues exclusive to their job description.

### **Anticipated Themes/Perceptions**

One of the themes anticipated from this research study included a lack of opportunity for novice women leaders to mentor with veteran women leaders. This theme was anticipated because the sample of participants was selected from an industry that is dominated primarily by men. Additionally, manager and supervisor positions within the selected industry are held predominantly by men. This theme was not evident. The participants in this research study did not find a lack of opportunity for mentoring with veteran women leaders. See Table 1 for a summary of these demographics.

Table 1

*Sample Demographics*

Gender	Number	Percentage
Male	1729	82
Female	369	18
Managers within the Company	Number	Percentage
Male	155	87
Female	24	13

Another theme that was anticipated from this research study included perspective. This theme was anticipated because novice women leaders face obstacles that novice male leaders typically do not encounter. Novice women leaders are faced with challenges such as being the primary caretaker of young children while also working to succeed as a new leader in an organization. As illustrated in Table 2, 42% of the participants in the field study were the primary caretaker of their dependents. Veteran women leaders can provide their perspective and experiences on succeeding in both their personal and professional lives. This is a perspective that many veteran male leaders cannot provide. This theme was one of the common themes that emerged from the research results.

Table 2

*Participants in the Field Study that are Primary Caretakers of their Dependents*

Description of Caretaker	Number	Percentage
Primary Caretaker	5	42
Equal Caretakers with Partner	4	33
No Dependents	3	25

### **Presentation of the Findings**

Interviews were conducted with twelve study participants using the Interview Guide found in Appendix A. All of the study participants were women. Of the 12 women, all were over 30 years of age and less than 70 years of age. Ten of the 12 participants were American. One of the participants was French. The final participant was Hispanic. Each of the participants had over 10 years of employment at the selected company and less than 50 years of employment. Four of the participants were in technical leadership positions. Eight of the participants held positions in support organizations. See Table 3 for a summary of the attributes of each of the participants in the field study.

Table 3

*Summary of Participant Attributes*

Age of Participant	Number	Percentage
21 – 30	0	0
31 - 40	3	25.0
41 - 50	2	16.67
51 - 60	4	33.33
61 - 70	3	25.0
Nationality of Participant	Number	Percentage
American	10	83.33
French	1	8.33
Hispanic	1	8.33
Employment Range	Number	Percentage
0 – 10 years	1	8.33
11 – 20 years	4	33.33
21 – 30 years	2	16.67
31 – 40 years	4	33.33
41 – 50 years	1	8.33
Organizations Supported by Study Participants	Number	Percentage
Communications	1	8.33
Engineering	4	33.33
Finance	3	25.0
Human Resources	2	16.67
Marketing	2	16.67

Six themes were developed as a result of the conducted interviews. Upon completion of the interviews, analyses were performed using the transcripts from the interviews, notes written during the interviews, the conceptual framework, and the review of the literature addressed in

Section 1 that supported the specified research questions. The six themes identified during the analyses that are supported by the specified research questions include:

1. Preference for informal mentorship
2. Empowerment
3. Perspective
4. Openness
5. Consideration of emotions
6. Camaraderie and respect

One additional theme that emerged from the study but was not included as part of the research questions from Section 1 include:

7. Specific veteran male mentoring

Data saturation was reached within eight interviews. After eight interviews, the collected data yielded similar and consistent results. There were no unique or distinctive ideas that emerged after eight interviews. Additionally, no observations were identified in at least the final three interviews that were conducted. The convergence of the five consistent and recurring themes identified above is evidence of data triangulation. Data triangulation is evidence of optimum authentication of the results of this study.

**Preference for informal mentorship.** One of the first themes that evolved from the interview process was that novice women leaders prefer informal mentorships over formal mentorships. This is because the participants want to have a choice in the selection of their mentor rather than having a mentor arbitrarily chosen for them by someone else. For some of the participants, mentors were chosen for the participants through the company's human resource processes. While the Human Resource processes allow for the selection of a mentor to be

matched with the mentee per the mentee's needs, mentor selection is also determined by the availability of a mentor. Thus, a mentor may be chosen for a mentee not because they are a good match for a mentoring relationship but rather because the selected mentor is the only one available at the time.

This theme is consistent with Weber's (2017) statement that informal mentors provide a positive and constructive means of sharing knowledge, providing support and teaching individuals who are "up and coming" in their professions. Mentoring relationships are more often informal in certain professional and educational arenas (Hernandez et al., 2017). A developmental relationship between an experienced individual and a less experienced individual often occurs between coworkers and leaders of their staff (Hernandez et al., 2017). These informal mentoring relationships promote professional identity, motivation, and persistence (Hernandez et al., 2017). Janssen, Vuuren, and Jong (2016) further state that informal mentoring relationships aid in the development and growth of novice staff because the relationship is unbounded and the focus is not restricted to professional development but also includes focus on personal development.

One participant stated that she chose informal mentoring because she wanted to know the person who was mentoring her. "You want to know the person before you would feel comfortable asking some of the questions you're dealing with, like, for example, when you're dealing with having to lay somebody off. I think the view of that situation is very different from one person to the other" (Participant 2, personal communication, September 20, 2019). She wanted to know their faith, their way of thinking, their ethics and moral behaviors. If the participant was not familiar with these traits of a mentor, then she would not feel comfortable asking them questions regarding issues that she was dealing with. This participant stated that if

she did not know or feel comfortable with a mentor from a formal selection process, then she would be hesitant to ask them the same questions that she would ask of someone she was familiar with and comfortable with. This participant elaborated that if she does not personally know someone then she would not feel comfortable taking their advice or guidance because she does not know their faith or their way of thinking and that makes a very big difference to her. She stated that she would be cautious in obtaining guidance from someone who may not share her beliefs and values.

Another participant stated that she was placed in the formal mentoring program at the company and received mentoring from a veteran male leader. She did not have a say in who was chosen to be her mentor. This mentoring relationship was not a successful one. The participant stated, "I think it was not a great choice, not a great match for me. I don't think he was understanding where I was coming from and I had to dig a lot more into it. He was never in my shoes before and he could not understand why I was asking some of the questions I was asking" (Participant 6, personal communication, September 25, 2019). The participant stated that the individual was not a great mentor because, in her mind, he was not a great leader. The participant stated that she knew of the individual who was chosen for her and did not have any respect for him as a leader. The participant also stated that another reason the mentoring relationship may not have been successful was because of the stage she was in with her skills and knowledge. She also acknowledged that her state of mind may have aided in the lack of a successful mentoring relationship because of her prior perceptions of the mentor.

**Empowerment.** The second theme that evolved from the interview process was that of empowerment. Novice women leaders felt empowered when mentored by veteran women leaders. Except for one, each participant felt that when mentored by a veteran woman leader,

they felt more confident to meet the expectations of their superiors and the documented description of their positions. During mentoring of novice women leaders, veteran women leaders discussed their own experiences and challenges in a male dominant industry. These discussions encouraged and empowered novice leaders to overcome any sense of ineffectiveness or powerlessness in their positions because they had evidence from veteran women leaders of their ability to overcome these same mindsets. These discussions emboldened novice women leaders to overcome their feelings of deficiency or lack of influence to recognize and use their resources to fulfill their responsibilities. Veteran women leaders who mentored novice women leaders enabled their mentees to think and behave positively and to take action to control their professional situations.

The theme of novice women leaders feeling empowered when mentored by veteran women leaders is consistent with Eustace's (2018) stance that veteran women leaders who are empowered, compassionate, and protective are excellent role models and mentors for empowering other women. This is also consistent with the self-determination theory that states that humans have three rudimentary psychological needs: autonomy, competence, and relatedness (Larsson, Pettersson, Eriksson & Skoog, 2016). These psychological needs, with the encouragement of veteran women leader mentors, empower novice women leaders to participate in situations that are expected to nurture their emotional needs (Larsson et al., 2016). The self-determination theory focuses on environments that facilitate the need for satisfaction (Schüler, Sheldon, Prentice, & Halusic, 2014). An important aspect of the environment is the encouragement and sponsorship provided by mentors who empower them to excel and succeed in their endeavors (Schüler et al., 2014). One study participant stated that when she approached her mentor, a veteran woman leader, with an issue that she felt she needed guidance on, her

mentor responded by asking questions of how the novice leader thought she should respond to the issue. The mentor responded with more questions rather than providing the actual guidance requested of her. As the novice woman leader provided her mentor with her response, the veteran woman leader stated, “You already know what to do and how to do it. Now you need to do it. I always say she empowered me. I would be frustrated when I would go into her and I would ask her how to do something” (Participant 1, personal communication, September 20, 2019). Once the novice woman leader heard her mentor’s words of affirmation, the mentor’s words empowered the novice woman leader to respond efficiently, effectively, and more importantly, confidently.

Another study participant stated that as she was progressing through her career, she was approached about a leadership position that required a significant amount of travel. Since this study participant had two small children, she was reluctant to advance to a position that required her to be away from her young children. This participant went to her mentor to express her concerns about the position and to ask her input on how to proceed. Her veteran woman mentor told her, “You make the job what you want it to be” (Participant 6, personal communication, September 25, 2019). This input from the veteran woman leader provided the participant with courage and empowerment to embrace a position with her thoughts and ideas on what the position should entail and how much travel she was or was not willing to accept. “She told me that I can be successful without traveling because I want to be with my kids. I can pick one or the other or both” (Participant 6, personal communication, September 25, 2019).

One other study participant stated that she had been provided feedback by others (not her mentor) who told her that she intimidated men because she stood her ground and refused to concede her thoughts or opinions. Because this study was participant led in an organization

comprised of primarily men in an engineering business unit, the participant was fearful that this perception of her would be a detriment to her career. Her mentor, a veteran woman leader, empowered her to successfully embrace her strong personality and to be dominant as a female in a predominantly male industry. The participant stated, “She empowered me: just knowing that you have someone very similar to you with your background that’s gone before you and been successful” (Participant 8, personal communication, September 30, 2019). This veteran woman leader coached the participant on how to use her individuality to her advantage and how to grow in her position rather than changing her individuality to merge into what others expected her to be.

**Perspective.** Novice women leaders felt that veteran women leaders provided novice women leaders’ a perspective that veteran men leaders could not provide in a male dominant industry. In general, women are typically seen as the parent who takes primary care of the children in their family, specifically getting them ready for school or daycare and taking care of them when they are sick or out of school. Each of the participants in the study had children and were the primary caregivers for the children. As leaders of an organization with children, women must balance their work schedules with the needs of those who depend on them. The participants of this study felt that a male leader could not provide the same perspective regarding this challenge as a veteran woman leader could. This is because a veteran woman leader who has also had children has navigated the same challenges as the novice women leaders and succeeded professionally.

The theme that veteran women leaders provide novice women leaders a perspective that veteran men leaders cannot provide in a male dominant theory is consistent with established literature. According to Corbell (2016), veteran women leaders provide the boost novice women

leaders need to change the status quo in a male dominant industry. When veteran women leaders mentor novice women leaders, the veteran leader provides a wider perspective and helpful information on how novice women leaders can advance in a predominantly male sector (Corbell, 2016). Additionally, psychosocial support from veteran women mentors includes providing encouragement and emotional support and providing guidance at a personal and individual level (Dawson, Bernstein & Bekki, 2015). Women mentees appreciate mentors who are cognizant of the different experiences of women and who understand the unique challenges that occur (Dawson et al., 2015).

One study participant stated that seeing her mentor raise her children and be successful on the job gave her the confidence she needed to make her situation work. The participant stated, "Seeing another female that has several young children and seeing her make it work gave me confidence that I could make it work too" (Participant 12, personal communication, October 8, 2019). This participant stated that she was able to observe how her mentor adjusted and juggled her responsibilities while raising a family. She was also able to discuss her challenges with her mentor to obtain feedback and a perspective that she did not feel she could obtain from a male leader. By being able to discuss her challenges with her mentor, the participant did not feel overwhelmed when challenges arose on both the work and home front. The mentor's perspective provided the mentee with the confidence she needed to confront her responsibilities and succeed while also raising a family.

One participant stated that one of the biggest benefits of having a veteran woman leader was because the veteran woman leader "...could share her struggles in a man's world" (Participant 10, personal communication, October 3, 2019). This participant stated that she was drawn to women leaders as mentors because women leaders had been through similar

experiences and could provide a perspective that men did not have. The participant stated, “I was just drawn to women leaders because I knew they had been through similar experiences” (Participant 10, personal communication, October 3, 2019). The participant further stated, “I could relate with women leaders and they could relate with me” (Participant 10, personal communication, October 3, 2019). Having a veteran woman leader provide her perspective of a situation that she had gone through in the past provided the novice woman leader with knowledge and insight that she could not have gotten from a male leader.

**Openness.** Novice women leaders felt that they could be more open with veteran women leaders when discussing how to address situations arising with difficult staff within their organizations. Study participants felt that they could freely ask their women mentors about situations within their organization without being negatively or openly judged. The participants stated that there were situations that they would not have felt comfortable addressing with a male mentor. This is because they felt that a male would have expected them to already know how to handle the situation without having to ask for their guidance. The perception of over half of the participants was that going to a male mentor for situations arising with difficult staff within their organizations would have negatively affected the relationship with their mentor and would have potentially affected their job performance rating.

The theme of openness is supported by Kanadli, Torchia, and Gabaldon (2017) who state that veteran women leaders provide positive influence through their contributions to strategic business decision-making. Veteran women leaders’ knowledge, experience, and values are different than their male counterparts (Kanadli et al., 2017). One such difference is the ability of veteran women leaders to create an open atmosphere for the sharing of information (Kanadli et al., 2017). McCrae (2015) states that women consistently score higher than men in the facets of

openness. This is specifically true when dealing with life experiences (McCrae, 2015). Women tend to be more open about their own experiences as well as more open to discussing the experiences of others (McCrae, 2015).

One participant stated that when she initially started mentoring with a veteran woman leader, she was asked to fill out a questionnaire. This questionnaire asked what the participant wanted to accomplish from the mentorship. One of the participant's goals was to address issues that the participant had with her leader. Initially, the participant was concerned that she would not be able to address these issues with her mentor because she did not know if she would feel comfortable being that open with her, especially since her leader was also her mentor's peer. The participant stated that the issues she had with her leader were the issues that her mentor helped her with the most throughout their relationship. The participant stated, "At first I was a little reluctant to be open with her because she was on the same level as my boss. So she was essentially my boss's peer. But she was open, honest, and I would say, and she would even say sometimes, that she was open and honest to a fault" (Participant 9, personal communication, October 1, 2019). The participant stated that the issues she was having with her leader were affecting her personally as well as professionally. The participant's veteran woman mentor helped her to move beyond the issues so that they were not affecting her as they had been. The participant stated, "She made me see that it really wasn't me that had the issue" (Participant 9, personal communication, October 1, 2019). The participant was able to move past the issues she had with her leader because of her ability to be open and honest with her mentor about the issues.

Another participant stated that her mentor, a veteran woman leader, asked her what her future looked like. The participant felt very secure when discussing any issues with her mentor. Because of this, the participant was able to be open about what she saw as her future, not only

within the company but also from a personal perspective. The participant stated, “I trusted her to tell her my goals, even though one in particular was in conflict with the job I was doing at the time” (Participant 11, personal communication, October 4, 2019). The participant’s mentor was able to guide the participant to talk about what her needs were and how to obtain the goals that she wanted to reach. This was accomplished because the mentor provided an atmosphere of openness and security for her mentee.

**Consideration of emotions.** Novice women leaders felt more comfortable discussing issues involving emotions with veteran women leaders than with veteran male leaders. Except for one participant, the remaining study participants felt that veteran women leaders were better able to address those issues that involved emotions. This was because the participants felt that women mentors were typically more empathetic in those situations where emotions surfaced. This was especially true if there were several women within the organizations of the novice women leaders. The women in these organizations tended to be more emotional than men. Veteran women leaders were able to guide how to handle the emotions that arose in these organizations. The participants were leery of addressing emotional issues or asking for guidance for emotional issues with male mentors.

The theme of novice women leaders feeling more comfortable discussing issues involving emotions with veteran women leaders than with veteran male leaders is consistent with barriers addressed by JoAnne Barnes (2017). Barnes (2017) states that it is often difficult for women to communicate concerns to veteran men leaders because of innuendos that women are too emotional. A woman mentor uses her knowledge and experience to reduce the severity of a situation and to relate to the novice woman leader on an emotional level (Barnes, 2017). Hooper, Masterson, Nkomo, and Michel (2016) further state that women leaders have unique

leadership styles and bring different dynamics to mentoring relationships than do men.

Specifically, women bring heterogeneity to mentoring relationships, such as the discussions of emotions, which are not typically available in relationships with veteran men leaders (Hooper et al., 2016). One study participant stated that she felt that her mentor, a veteran woman leader, approached things differently than a male leader would. The participant stated that men “just do things” whereas women, and specifically, her mentor, are more worried about the feelings that are going to occur from different situations. This participant was talking specifically about difficult situations with personnel. This participant gave an example of having to reduce the headcount in her organization. She had several women working in her organization that was affected. The participant discussed having to lay off these women with her mentor to obtain needed guidance on what to expect and how to handle the emotional outpouring that was sure to occur. The participant stated, “She told me to expect the emotions like crying, anger, and to be ready to offer support and empathy” (Participant 2, personal communication, September 20, 2019).

Another participant stated that her mentor, a veteran woman leader, was more receptive to questions and was more sensitive to her needs than a male mentor would have been. The participant also stated that her mentor “put a little more of that human touch” to their relationship (Participant 10, personal communications, October 3, 2019). She also stated that her mentor was also a working manager and would “jump in there” and tell her staff that “we’ll do this together” (Participant 10, personal communication, October 3, 2019). The participant stated that her mentor was very aware of the human side of leading an organization. The participant felt that this allowed the veteran woman leader to be a more well-rounded mentor when compared to a

male leader and mentor who is more in tune with the technical needs and processes of an organization than the emotional needs of the individuals within his organization.

**Camaraderie and respect.** Novice women leaders felt camaraderie with veteran women leaders regarding their personal and professional lives. This was specifically seen in two areas. One area was with those women mentors who had comparable individual experiences providing primary care to children while maintaining a full-time leadership position within the industry. Another area where novice women leaders felt camaraderie with veteran women leaders was in the area of professional development and experiences where they were put in a position of a challenge by a male peer or subordinate. Sharing these experiences created camaraderie between the mentor and mentee that helped to establish a positive mentoring relationship.

The theme that novice women leaders felt camaraderie and respect with veteran women leaders regarding their personal and professional lives is consistent with studies performed by Joanna Barnes (2017). Barnes (2017) states that camaraderie and respect are specific requirements for a successful mentoring relationship. Janssen et al. (2016) further concurs that camaraderie and mutual respect are necessary for forming positive and successful mentoring relationships. Kanadli et al. (2018) further state that when novice women leaders respect their veteran women leader mentors, they feel confident that the mistakes they make and discuss with their mentors will be tolerated as learning experiences rather than career-destroying mistakes. Lingo and Elmes (2019) state that when respect is apparent in a mentoring relationship, each member of the relationship feels valued and emotionally supported.

When camaraderie was established between a mentor and mentee, participants also experienced respect for their mentor. One participant, whose manager was also her mentor, stated that she knew her mentor as a friend and comrade before her becoming her mentor. She

did not necessarily respect her mentor until she experienced how her mentor managed not only her but also the entire department. In this instance, the mentor earned the respect of her mentee because of the mentor's forthrightness, experience, and knowledge. This respect was earned by the mentor because of the mentor's ability to engage the mentee from a personal perspective as well as a professional perspective.

**Specific veteran male mentoring.** One additional theme unexpectedly emerged from this study. This theme was not specifically in alignment with the specified research questions from Section 1. This additional theme included the use of a veteran male leader as a mentor for specific job-related issues. The use of a veteran male leader as a mentor was discussed as an addition to a mentor that is a veteran woman leader. This theme was not bounded by either of the research questions from Section 1 but became evident and a common theme during the interview and transcription process.

Novice women leaders appreciate a male leader's perspective when dealing with issues exclusive to their job description. One-third of the participants in the study stated that there were situations and times where they would reach out informally to a male veteran leader during their mentoring by a veteran women leader to obtain guidance on a specific technical issue. This was not because the women mentors were unfamiliar with the technical issue. This was because, alternately, the participants wanted a male's perspective of the issue. This typically had nothing to do with personnel issues, issues containing emotions, or where the feelings of someone were involved. Rather, it was a methodological or procedural issue.

One participant stated that her organization had a majority of men in technical positions. Because of this, she felt that it was helpful to get a man's perspective on certain issues and the leadership of men. She stated that men and women think about situations very differently. She

stated, “A lot of men are ‘just do it’ men while women tend to analyze things a bit more” (Participant 6, personal communication, September 25, 2019). While both men and women mentors offer different qualities in a mentoring relationship, both have their advantages.

A different participant stated that she had both a man and a woman informal mentor at the same time. This was a conscious effort on her part because she felt that there were advantages by having both. This participant would make an appointment with her woman mentor and obtain guidance from her. She would then make an appointment with her male mentor and obtain guidance from him. Once she had obtained the guidance from both of her informal mentors, she would then reconcile the guidance and decide on how she would use the information and guidance provided to her. This participant stated,

Sometimes the mentorship is like how their brain works in certain situations. I’m in a room full of men and I cannot figure out why somebody is saying the things they are saying. I would go to a male mentor and ask some good questions based on what I had just experienced and then receive input from him on what he thought it meant.

(Participant 6, personal communication, September 25, 2019)

**Outlier.** One outlier became apparent during the interview process. One of the research participants responded to the research questions in a manner that was inconsistent and contradictory to the responses made by the remaining participants. In addition to the questions identified in Appendix A that were asked of all participants, supplementary questions were asked of this participant to better understand the participant’s responses and motivation. This participant was raised in a foreign country and, due to circumstances beyond her control, became the primary caretaker of her sibling at a young age. This participant’s background and experiences prompted her to become a leader early in life. Additionally, this participant’s role

models and paradigms were predominantly male. While this participant has become a respected leader in the company, her experiences with other women leaders have tended to be adverse. This participant stated that she found veteran women leaders to be threatened by other women leaders and to be competitive and dramatic rather than empowering or helpful. She stated, “I think, unfortunately, well maybe it’s my personality, I have better relationships with men than women. I think they are more direct, I think there is less agenda, I think they are more all about getting it done, I feel better around men, and to me that was natural, while women sometimes I’m always questioning competitiveness, or perception” (Participant 7, personal communication, September 27, 2019).

**Relationship of themes/patterns to research questions.** The first question in the Interview Guide asked: “Did you participate in a mentoring relationship when you were initially promoted to a leadership position?” This question was an introductory question. Participant responses to this question determined whether the subsequent questions would follow Part A of the Interview Guide or Part B of the Interview Guide. Part A of the Interview Guide was followed if the interviewee participated in a mentoring relationship when they were initially promoted to a leadership position. Part B of the Interview Guide was followed if the interviewee did not participate in a mentoring relationship when they were initially promoted to a leadership position. Eleven of the 12 participants answered “yes” to the first research question. Questions for these 11 participants followed Part A of the Interview Guide. Questions for the one participant that answered “no” to the first research question followed Part B of the Interview Guide.

Interview questions in Part A of the Interview Guide address research question RQ1 from Section 1. Research question RQ1 explores the role mentorship by senior women leaders play in

the success, growth and leadership development of novice women leaders in the nuclear vendor industry in Central Virginia and investigates the difficulty in finding such mentors. In Part A, questions 1 through 4, inquiries are made regarding the establishment of a mentoring relationship and initial perceptions and views. Questions following the introductory question were probing and prompting questions. These questions were generated to produce responses from the participants that were spontaneous, in-depth and descriptive. This allowed the participants to reflect upon their personal experiences and feelings while producing data that allowed for the potential emergence of new themes and concepts.

The first emergent theme of this research study resulted from the answers to the first question in Part A of the Interview Guide and the follow-up questions. The theme that emerged from interview questions 1 through 4 was that of the participant's preference for informal mentorship over formal mentorship. Eleven of the twelve participants answered "yes" to the question, "Did you participate in a mentoring relationship when you were initially promoted to a leadership position?" Subsequent questions following the introductory question resulted in the first emergent theme of the participants' preference for informal mentorship. Informal mentorship is when the participants' sought out their mentor, as opposed to requesting the company's Human Resources department to find them a mentor. The participants' preferred informal mentorship over formal mentorship because they wanted to have a choice in the selection of their mentor. Four of the 12 participants had mentors chosen for them and the results were not as successful as informal mentorship where a novice woman leader selected her mentor herself. Novice women leaders felt more comfortable obtaining advice or guidance from a mentor they were familiar with and where they had similar values and beliefs.

The next three emergent themes also address the research question RQ1. These themes also emerged from questions 1 through 4 of the Interview Guide and supplementary questions. Participants described their mentoring relationships with veteran women leaders as empowering, open and offering perspectives they did not feel they would have received from veteran male leaders. These themes address the research question RQ1 because the themes add to the body of knowledge on how the role of mentorship by senior women leaders play in the success, growth and leadership development of novice women leaders. Novice women leaders felt empowered when mentored by veteran women leaders. Veteran women leaders discussed their own experiences and challenges in a male-dominated industry which encouraged and empowered the novice leaders to overcome their, at times, a sense of powerlessness because they had evidence from other women leaders of their ability to overcome the same mindsets. These discussions emboldened novice women leaders to overcome their feelings of deficiency or lack of influence to recognize and use their resources to fulfill their responsibilities.

Novice women leaders felt that they could be more open with veteran women leaders when discussing how to address situations arising with difficult staff within their organizations. Study participants felt that they could freely ask their women mentors about situations within their organization without being negatively judged and further stated that these were situations that they would not have felt comfortable addressing with a male mentor. This allowed the participants to delve further into those leadership questions they had but were not available to ask them elsewhere. Novice women leaders also felt that veteran women leaders provided them with a perspective that veteran men leaders could not provide in a male dominant industry. This perspective from veteran women leaders allowed the novice women leaders to successfully develop in their leadership roles while maintaining and succeeding in their personal lives as well.

Question 5 of the Interview Guide queries the leadership style of the mentor, the effects on the mentee, and the relationship with the mentee. Questions 6 through 8 seek to address how the relationship generally affected the participant and their recommendations to other potential mentees. Questions 11 through 15 explore the participants' perception of a mentoring relationship and how it may or may not have affected their positions, organization or business. Question 16 seeks to understand how the perceptions and views of the participants' affect the potential for their staff to seek mentoring relationships with veteran women leaders. These questions also support research question RQ1 from Section 1. Themes that emerged during the analysis of the transcribed interviews, notes written during the interviews, the conceptual framework, and the review of the literature addressed in Section 1 included consideration of emotions, camaraderie, and respect. Novice women leaders felt more comfortable discussing issues involving emotions with veteran women leaders than with veteran male leaders. Veteran women leaders were able to provide guidance on how to lead in those situations when emotions arose in the organizations. The participants felt that women were more capable of leading in emotional situations as opposed to male mentors.

Novice women leaders felt camaraderie and respect with veteran women leaders regarding their personal and professional lives. Novice women leaders respected the veteran women leaders who were successful in leading their organizations while also managing their personal lives. Because this specific industry is primarily male-dominated, novice women leaders respected their veteran women leaders who were able to lead their organizations and succeed when placed in positions of challenge by male staff members. Sharing these experiences with their mentee allowed the novice women leaders to understand how they too can be successful in a male-dominated industry.

Research question RQ2 from Section 1 explores and seeks to understand why some novice women leaders do not participate in a mentoring relationship with veteran women leaders. Questions 9 and 10 of the Interview Guide sought to address the potential lack of opportunity or lack of willingness for novice women leaders to participate in a mentoring relationship with a veteran woman leader. During the interview process, however, eleven of the twelve participants responded that they did indeed choose a veteran women leader as their informal mentor. Therefore the supposition that there was a lack of opportunity to participate in a mentoring relationship with a veteran woman leader was incorrect. There was however one participant who had no desire to participant in a mentoring relationship with a veteran woman leader. The responses of this participant were determined to lie outside the bounds of the remaining responses. The responses from this participant were determined to be an outlier.

One outlier became apparent during the interview process. One of the research participants responded to the research questions in a manner that was inconsistent and contradictory to the responses made by the remaining participants. In addition to the questions identified in the Interview Guide in Appendix A that were asked of all participants, supplementary questions were asked of this participant to better understand the participant's responses and motivation. This participant was raised in a foreign country and, due to circumstances beyond her control, became the primary caretaker of her sibling at a very young age. This participant's background and experiences prompted her to become a leader very early in life. Additionally, this participant's role models and paradigms were predominantly male. While this participant has become a respected leader in the company, her experiences with other women leaders have tended to be adverse. This participant stated that she found veteran women

leaders to be threatened by other women leaders and to be competitive and dramatic rather than empowering or helpful.

**Summary of the findings.** This qualitative research study was expected to answer the research questions posed in Section 1 to append the body of knowledge regarding mentoring relationships among women leaders in a technical-oriented industry. This was to be done by exploring the mentoring experiences and the perception of women on mentoring who are or have been in leadership positions. Twelve interviews were conducted using the Interview Guide found in Appendix A. The women who were invited to participate in the study were selected from convenience sampling. Eleven of the 12 women leaders who participated in the study answered 23 questions regarding their mentoring experiences, the relationships established with their mentors, barriers encountered during their mentoring, and how the barriers were overcome. The women leaders also addressed the influence their mentors had on their leadership style and abilities as well as their influence their mentors had on the growth of their organization and overall business success. One woman leader that participated in the study did not participate in a mentoring relationship when they were initially promoted to a leadership position. This woman answered eight questions regarding their lack of mentoring experience. Additional probing questions were asked to obtain further information from each of the participants when applicable.

The ages of the women who participated in the study varied from their 30s in age to 60s. Twenty-five percent of the participants were in their 30s and 60s, 17% of the participants were in their 40s, and 33% of the participants were in their 50s. Ten of the 12 participants were American. Two of the 12 participants were French and Hispanic nationalities. The range of employment of the participants was from less to 10 years to over 40 years of employment. After eight interviews, the data yielded similar and consistent results.

After evaluation and analysis of the data, six themes that support the research questions in Section 1 became apparent that contribute to the body of knowledge regarding mentoring relationships among women leaders in a technical-oriented industry. The first theme was that novice women leaders prefer informal mentorship over formal mentorship because they have a choice in the selection of their mentor. The second theme was that novice women leaders felt empowered when mentored by veteran women leaders. The third theme was that novice women leaders felt that veteran women leaders provided novice women leaders' a perspective that veteran men leaders could not provide in a male dominant industry. The fourth theme was that novice women leaders felt that they could be more open with veteran women leaders when discussing how to address situations arising with difficult staff within their organizations. The fifth theme was that novice women leaders felt more comfortable discussing issues involving emotions with veteran women leaders than with veteran male leaders. The sixth and last theme that supported the research questions from Section 1 was that novice women leaders felt a comradery with veteran women leaders regarding their personal and professional lives, specifically those who had comparable personal experiences providing primary care to children while maintaining a full-time leadership position within the industry. The convergence of the six consistent and recurring themes is evidence of data triangulation. The identified themes are relevant to the benefits of a mentoring relationship between women leaders which include enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016).

An additional theme emerged from the study that was not in alignment with the research questions from Section 1. This additional theme was that novice women leaders appreciate specific veteran male leader mentoring for specific job-related issues. The use of a veteran male

leader as a mentor was considered as an addition to a veteran woman leader mentor. Novice women leaders welcome a male leader's viewpoint when addressing issues exclusive to their job description and the leadership of men. Obtaining a male leader's viewpoint typically had no relationship to personnel issues or matters involving emotions.

### **Applications to Professional Practice**

This qualitative research collective case study focused on the exploration of mentoring relationships among women leaders. Organizations face the challenge of imparting the knowledge of their veteran employees to novice employees. Knowledge is an organizational resource that leads to greater competence in a company's innovation and is one of the most vital resources for competitive advantage (Curtis & Taylor, 2018). Lost knowledge because of an aging workforce or because of a mobile workforce is a significant hazard to an organization's prolonged sustainability and achievement (Lunsford, 2016). The design and use of contemporary knowledge are critical to the perseverance of virtually all businesses (Lunsford, 2016). Knowledge sharing or mentoring is the willingness of veteran employees in the workforce to share their knowledge and experiences with novice staff (O'Brien, 2019). Mentoring provides many advantages to organizations including enhancing business and organizational success and improving leadership competence (Alvarez & Lazzari, 2016). Additionally, according to Corbell (2016), mentorship of novice women leaders by veteran women leaders in businesses improves the self-confidence, communication skills, and problem-solving skills of novice women leaders (Jakubik, 2015). This qualitative research collective case study explored the mentoring relationships among women leaders and specifically concentrated on the relationships of women leaders employed at local nuclear vendor facilities.

The research questions for this collective case study addressed the role mentorship of novice women leaders by veteran women leaders played in the success, growth and leadership

development of the novice women leaders. According to Corbell (2016), there continues to be an underrepresentation of women in certain business sectors, including those businesses that are highly technical. Because of this underrepresentation, the research questions also addressed the difficulty of novice women leaders finding veteran women leaders for mentors. The questions further addressed the concept that some novice women leaders choose to be mentored by veteran women leaders while others do not. Questions further explored the challenges and barriers encountered during mentoring and how the novice women leaders overcame the challenges and barriers to develop a positive mentoring relationship with their mentor.

Numerous leadership theories and methods were encountered in the literature review. The study was supported in the self-determination theory and the motive disposition theory. The self-determination theory suggests that all individuals have three psychological needs (Larsson, Pettersson, Eriksson, & Skoog, 2016). These needs vary from individual to individual (Larsson et al., 2016). This theory suggests that all individuals need autonomy, competence, and relatedness to nurture their emotional needs (Larsson et al., 2016). Those individuals who are highly autonomous and capable demonstrate remarkable work performance and are excellent candidates for mentoring (Howard, Gagne, Morin, & Broeck, 2016). According to the motive disposition theory, the need for achievement involves the continual desire to improve while successfully interacting with the environment (Sheldon & Prentice, 2019). These social motivation theories indicate that understanding the motivations of individuals helps assure positive results in the relationships between mentors and mentees (Cray, 2016).

The themes developed from this study are relevant to the advantages of a mentoring relationship between women leaders which include enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016). When novice women

leaders are empowered by the mentoring they receive from veteran women leaders, the novice leaders are in a state in which their leadership and organizational goals are more likely to be fulfilled (Pratto, 2016). When women are empowered, they see themselves as having the competence and the ability to act and to have an influence which positively correlates to their business and organizational success (Cornwall, Vang, & Hartman, 2016). Empowerment aids in the removal of perceived obstacles and provides women the courage to address these obstacles on the path to reaching the objectives of the business and the organization (Cornwall, Vang, & Hartman, 2016).

When novice women leaders are engaged in a positive mentoring relationship with a veteran woman leader, the novice leader is provided a perspective that aids in problem-solving skills that include the consideration of emotions (Jakubik, 2015). Mentors who have established a positive relationship with their mentees can impress emotional wellbeing onto their mentees (Simmons, 2017). Additionally, the mentor can aid the mentee to proactively respond to challenging work situations (Simmons, 2017). A mentor that can provide emotional support while considering the emotions of others influences a mentee's performance and promotes innovation (Kock, Mayfield, Mayfield, Sexton, & De La Garza, 2019). There are psychosocial keystones of leadership and social experiences in the work environment that are distinctive to women mentors (Block & Tietjen-Smith, 2016). This is because women are typically better at acceptance and validation through communication, openness, and collaboration (Menges, 2016). Acceptance and validation by veteran women leaders through a mentoring relationship helps assure that novice women leaders are supported during their careers for further advancement into leadership (Hideg & Shen, 2019).

Concerning the preference for informal mentoring, the women leaders in the study disclosed that their most positive mentoring relationships were informal. This is consistent with a study performed by Block and Tietjen-Smith (2016). Block and Tietjen-Smith stated that informal mentoring relationships that are formed by coincidence and without any prearranged agenda tend to develop instinctively and without assistance. These naturally developed mentoring relationships that are formed through interpersonal connections increase the perceptions by the mentees of their significance and meaningfulness as a significant leader in the organization (Colbert, Bono, & Purvanova, 2016). Additionally, business and organizational effectiveness are improved when mentees and mentors develop mutual support and meaningful feedback (Brandau, Studencnik, & Kopp-Sixt, 2017).

A primary objective of mentoring is to facilitate others to acquire the knowledge and skills necessary to enhance business and organizational success and improve leadership competence (Alvarez & Lazzari, 2016). Mentors are consistently seen as important sources of support in leadership development and subsequently play an important role in the outcomes of professional and emotional development. Positive professional and emotional development are key attributes in business and organizational success as well as leadership competence (Leary, 2018). Consequently, Beckwith (2016) states that the purpose of business is to serve God and to provide for the continuance of God's kingdom. When businesses are successful and sustainable, goods and services are provided to communities to flourish (Vogel, 2015). Additionally, businesses that are successful and sustainable provide opportunities for individuals to convey aspects of their God-given individualities through significant and productive work (Vogel, 2015, 2010).

For businesses to be successful and sustainable, they must be run by leaders who will work in concert with others and who are willing to seek counsel and the guidance of others who are more experienced than themselves (Cawley & Snyder, 2015). By seeking counsel and the guidance of others, the corporate good and God's ultimate purpose can be more fully attained (Beckwith, 2016). To be a successful leader, guidance and counsel, specifically mentorship, is needed from more experienced leaders who can provide wise counsel to less experienced leaders (Cawley & Snyder, 2015). Mentoring is not only provided to aid in the leadership development of the mentee and the sustainability of a business (Leary, 2018). Mentoring is a means of communicating the love of God and the grace of God (Leary, 2018).

A mentor should strive to be a trusted advisor. A trusted advisor is one who places a higher value on maintaining and preserving the mentoring relationship than on the expected outcomes (Vogel, 2015). Mentors should be trusted advisors and guides because central to the Christian belief is truth and the encouragement of others (MacLennon, 2017). The Christian Golden Rule, found in Luke 6, verse 31, states that everyone should treat others as they would like themselves to be treated. This is a concept for all mentors to follow (MacLennon, 2017).

### **Recommendations for Action**

To address the problem of women entering into leadership positions without the influence of mentoring by other veteran women leaders, this study focused on the mentoring relationships of women leaders in the nuclear vendor industry in Central Virginia. The themes that were established during the analysis of the field study include the preference for informal mentorship, empowerment, perspective, openness, consideration of emotions, camaraderie, and respect, and specific veteran male mentoring. Given the themes realized in the analysis of the interviews of the field study participants, five actions are recommended. These recommendations are to aid in the assurance that businesses and organizational veteran leaders ascertain the importance of

mentoring relationships among women leaders. These recommendations include encouragement of informal mentoring relationships, identification of mentoring opportunities, training of veteran women leaders for mentoring, encouragement of specified mentoring, and training of veteran male leaders for mentoring.

**Encouragement of informal mentoring relationships.** One of the themes that evolved from the field study interview process was that novice women leaders favor informal mentorships over formal mentorships. Mentees want to have a choice in the selection of their mentor rather than having a mentor arbitrarily chosen for them. A recommendation for action is for the managers of novice women leaders to encourage mentoring through informal relationships. Human resources personnel should also encourage mentoring through informal relationships as opposed to formal mentoring relationships. Observation and surveillance of novice women leaders by their managers upon initially obtaining a leadership position will allow the manager to determine the personality and temperament of the novice leader and provide choices to the novice leader on the best potential mentors. Managers should also observe the novice leader and identify any instinctive relationships that are established with veteran women leaders and encourage informal mentoring.

**Identification of mentoring opportunities.** Mentoring opportunities should be made available at the outset of a novice woman's leadership induction. This should be done with the encouragement of human resources personnel as well as the novice woman leader's manager. However, other opportunities for mentorship should also be identified. For example, a novice woman leader who has been awarded a specific project that is outside the leader's arena of expertise should be encouraged to engage in mentoring by an individual with prominent experience in the area. This type of mentoring is specific and initiated for an identifiable period.

As a novice woman leader succeeds in her position with the aid of her mentor and then begins her rise to higher levels of leadership, mentoring should not terminate. Mentoring should be considered a journey, not a destination. Successful novice women leaders may climb to higher levels within the business and eventually be considered veteran leaders by others. However, mentoring opportunities should continually be encouraged for aid and support by even more veteran women leaders.

**Training of veteran women leaders for mentoring.** Veteran women leaders should be trained before mentoring novice women leaders. Mentors should have certain attributes to be effective in mentoring. A mentor that does not display the essential skills to build trust with a mentee may not be effective or have positive results (Clutterbuck & Lane, 2016). These essential skills include respect, openness, patience, and being aware of their own developmental needs (Clutterbuck & Lane, 2016). Additionally, mentees expect that their mentors will lead by example, will model relations with others, and will share their struggles (Eller, Lev, & Feurer, 2014). Mentors should be provided with developmental activities that will aid them in their mentoring activities. These aids include role modeling examples, activities on how to model ethical actions and examples of how to demonstrate the purpose and significance of their trade (Eller et al., 2014).

**Encouragement of specified mentoring.** A theme that evolved from the field study interview process was the use of a veteran male leader as a mentor in addition to a veteran woman leader. Novice women leaders appreciate a male leader's perspective when dealing with issues exclusive to their job description. This was not because the women mentors were unfamiliar with any specific technical issue. It was because the mentees genuinely wanted a male's perspective of specific issues related to their position and related to the leadership of men.

Novice women leaders should be encouraged by their managers and by human resource personnel to consider mentoring by a veteran male leader in addition to a veteran women leader.

**Training of veteran male leaders for mentoring.** Because of the theme that evolved from the field study interview process on the use of a veteran male leader as a mentor in addition to a veteran woman leader, veteran men leaders should also be trained before mentoring novice women leaders. Women mentors are consistently reported as providing more psychosocial and instrumental support than male mentors (Clutterbuck & Lane, 2016). Veteran male leaders that are chosen for mentoring should be trained on the essential skills needed for effective and positive mentoring relationships including respect, openness, patience, and self-awareness (Clutterbuck & Lane, 2016). Women mentors are also more proficient at building rapport than male mentors (Clutterbuck & Lane, 2016). Male mentors should also be provided training on how to build rapport with novice women leaders.

**Implementation of recommendations.** The five actions for recommendation will aid in the assurance that businesses and organizational veteran leaders are fully aware of the importance of mentoring relationships among women leaders. Implementation of the recommendations will be most successful if they occur in three areas of administration. These three areas include executive, human resources, and managers. First, recommendations must be encouraged at the highest level of a company to be successful. When executives acknowledge and support recommendations, implementation of the recommendations is more widely accepted and more successfully implemented (Brauer & Wiersema, 2017). Second, the human resource organization must include mentoring and training of mentors in their onboarding processes. Informal mentoring must be included as part of the process as well as formal mentoring. Third, managers should be made aware of the advantages of mentoring and encourage all novice

women leaders to participate in mentoring with veteran women leaders. The business, organizations, managers, veteran mentors, and novice women leaders who participate in mentoring will all benefit from effective and successful mentoring relationships.

### **Recommendations for Further Study**

A review of the available professional literature failed to identify studies that explored how early parental and guardian relationships affect the choice of mentors when novice women enter leadership positions. During the field study interview process, it became apparent that early parental and guardian relationships affect the choice of mentors. It also became apparent that early parental and guardian relationships affect the choice of novice women leaders to participate or not participate in mentoring relationships. A recommendation for further study includes exploring the early parental and guardian relationships of novice women leaders and how the relationships affect mentoring relationships, specifically with veteran women leaders. Included in this recommendation for further study is also the exploration of how parental and guardian relationships affect the decision of novice women leaders to participate or not to participate in mentoring relationships with veteran women leaders.

A review of the available professional literature also failed to identify studies that explored how nationality and diverse cultures affect the choice of mentors for novice women leaders. It was apparent during the field study interview process that nationality and diverse cultures affect the choice of mentors for novice women leaders. Additionally, nationality and diverse cultures appear to affect the choice of a novice women leader to even participate in a mentoring relationship with a veteran women leader. A recommendation for further study includes exploring how nationality and culture affect mentoring relationships, specifically with veteran women leaders. Understanding cultural differences concerning mentoring will help to

assure that employees are fully supportive of the mentoring needs of novice women leaders that are from other nationalities and cultures.

A review of the available professional literature additionally failed to identify studies that explored mentoring of novice men leaders by senior women leaders. Studies exploring the mentoring relationship between novice men leaders and senior women leaders would be useful in determining how mentoring affects the business and organizational success of the novice men leaders. Studies exploring the mentoring relationship between novice men leaders and senior women leaders would also be useful in determining if there is a benefit for the men in the psychosocial arenas. A recommendation for further study includes exploring how the mentoring of novice men leaders by senior women leaders affect mentoring relationships. Included in this recommendation is an exploration of whether the novice men leaders are more psychosocially and instrumentally supportive of their employees as a result of mentoring by senior women leaders.

### **Reflections**

The purpose of this qualitative collective case study was to add to the body of knowledge on the lack of mentoring relationships among women leaders in a technical-oriented industry. This was to be accomplished by exploring the mentoring experiences, or lack thereof, and the perception of women on mentoring who are or have been in leadership positions. The purpose of this study was also to provide an analysis of mentoring relationships among novice women leaders and the effect that mentoring has on business and organizational success and leadership competence. This study also explored the perception that senior women leaders who mentor novice women leaders contribute to the novice leader's self-confidence, communication skills, and problem-solving skills. The study included twelve personal interviews with women leaders who were selected from convenience sampling. The participants were employed at facilities

located at convenient sites to the researcher as well as from personal networks. Because some of the participants were selected from personal networks within the facilities, care was taken not to stray from the questions in the Interview Guide for each of the study participants. Study participants were eager to participate and provide their time to answer the questions. Participants were also supportive and responsive in reviewing the transcripts of their interviews and responding to follow up questions. Admittedly, there were surprises regarding which of the invited participants would respond and willing to participate. The expectation was that participants who were familiar with the researcher would be more willing to participate in the field study than participants that were invited but had no knowledge of the researcher. This was not the case.

Before the field study, there was an expectation that study participants would respond that there were few women leaders in the specified industry to request mentoring. This expectation was incorrect. The novice women leaders that participated in the field study were self-aware to recognize the benefit of mentoring by a senior woman mentor and sought out that benefit. This resulted in the novice women leaders choosing to be mentored by the same veteran woman leader at times. Because the mentoring occurred during different periods, this did not result in the lack of mentoring available to novice women leaders by veteran women leaders. It did, however, enhance the researcher's opinion of specific veteran women leaders who have chosen to dedicate their time and attention to mentoring multiple novice women leaders during their careers. These senior women leaders are mentors that are trusted advisors and guides that are central to the Christian belief of truth and the encouragement of others. Mentoring should be based on Biblical principles. These principles, which are evident in the senior women leaders who have mentored multiple novice women leaders, including treating people with respect, with

unconditional regard, modeling the love of God to all, and encouraging the mentee in persistence (Leary, 2018).

### **Summary and Study Conclusions**

The general problem addressed in this qualitative collective case study was the lack of mentoring relationships among women leaders despite the many advantages of a mentoring relationship which include enhanced business and organizational success, and improved leadership competence (Alvarez & Lazzari, 2016). The purpose of this qualitative collective case study was to add to the body of knowledge of the lack of mentoring relationships among women leaders in a technical industry by exploring the mentoring experiences, or lack thereof, and the perception of women on mentoring who are or have been in leadership positions. The study included interviews with twelve women who were employed at facilities located at convenient sites to the researcher as well as from personal networks. Interview responses were assessed, and multiple themes became apparent that contribute to the body of knowledge regarding mentoring relationships among women leaders in a technical-oriented industry. The multiple themes support the research questions posed in Section 1. The apparent themes included a preference for informal mentorship, empowerment, perspective, openness, consideration of emotions, camaraderie, and respect, and specific veteran male mentoring.

Based on the study findings and the apparent themes, five actions are recommended for implementation. These recommendations for implementation include encouragement of informal mentoring relationships, identification of mentoring opportunities, training of veteran women leaders for mentoring, encouragement of specified mentoring, and training of veteran male leaders for mentoring. The conclusions of this study and the recommendations for action contribute to the body of knowledge of mentoring relationships among women leaders in a technical-oriented industry. Successful mentoring aids in the success and sustainability of

businesses. Business leaders must work in unison with others and must be willing to seek counsel and the guidance of others who are more experienced than themselves (Cawley & Snyder, 2015). By seeking counsel and the guidance of others, the corporate benefit and God's ultimate design for business can be more fully attained (Beckwith, 2016). Mentoring provides an aid in the leadership development of the mentee and the sustainability of a business and is a means of communicating the love and grace of God (Leary, 2018).

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## Appendix A

### Interview Guide

The interview questions located below were generated to address the research questions identified in Section One of this research study. The questions are envisioned to probe and prompt the study participants. The objective of the Interview Guide and its implementing questions is to generate answers from the participants that are spontaneous, in-depth, unique, and vivid (Kallio et al., 2016). Participant responses to the questions should reflect the participant's personal feelings and experiences (Kallio et al., 2016). The Interview Guide consists of two parts. Interview questions in Part A of this Interview Guide address research question RQ1 from Section One. Interview questions in Part B address research question RQ2 from Section One.

#### Part A

1. Did you participate in a mentoring relationship when you were initially promoted to a leadership position? (If the answer is no, proceed to question #9).
  - 1a. Was the mentoring relationship a requirement or an option?
  - 1b. How was the mentoring relationship established?
2. Was your mentor a veteran male or veteran woman leader?
  - 2a. What do you consider the benefits of having a veteran woman leader as a mentor as opposed to a male leader?
  - 2b. What do you consider the benefits of having a veteran man leader as a mentor as opposed to a woman leader?
3. What was your mentor's position in relation to your organization?
4. How would you characterize your first meeting with your mentor?
  - 4a. Describe any initial barriers that were present with your mentor.

- 4b. How did you overcome any barriers with your mentor?
- 4c. Describe your initial perceptions and views on your relationship with your mentor.
- 5. Describe your mentor's leadership style.
  - 5a. Did you identify with your mentor as a positive role model?
  - 5b. Did your mentor help create goals for you to work toward?
  - 5c. Did your mentor provide guidance on how to reach your goals?
  - 5d. Did your mentor emotionally inspire you to reach your goals?
  - 5e. Did your mentor offer rewards or recognition for accomplishing your goals?
  - 5f. Did your mentor intellectually challenge you with new perspectives and ideas?
  - 5g. Did your mentor provide personal attention and individual consideration?
  - 5h. Did you feel like your mentor truly cared about you and your success?
- 6. Describe your perceptions and views on how your mentoring relationship influenced your leadership style and leadership ability.
- 7. Describe your perceptions and views on how your mentoring relationship enhanced the growth of your organization and your overall business success.
- 8. Would you recommend to novice women leaders the establishment of a mentoring relationship with veteran women leaders?

#### Part B

The following questions are for those participants who answered "no" to question 1.

- 9. Did you have the opportunity to participate in a mentoring relationship when you were initially promoted to a leadership position?
- 10. Did you consider seeking out a mentor in your new leadership role?

11. What do you consider the benefits of having a veteran woman leader as a mentor as opposed to a male leader?
12. Describe your perceptions and views on the establishment of mentoring relationships.
13. Do you believe that a mentoring relationship would have aided you in your leadership position as a novice leader?
14. Do you believe that a mentoring relationship would have aided your organization and overall business?
15. Have you ever considered mentoring a novice woman leader?
16. Do you encourage the individuals that you lead, specifically the women on your staff, to participate in a mentoring relationship?

Upon completion of the interviews, each interview will be transcribed based on the audio-recording and any applicable handwritten notes. All records will be identified with a unique coding that will assure the confidentiality of each participant. A summary of the transcripts will be provided to the research participants for review. This is to assure the participants are in agreement with the discussions.