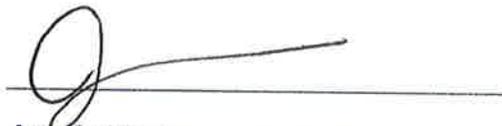(Blank Page)

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FEMALE COMMUNICATION AND THE PROFESSIONAL ADVANCEMENT

EXPERIENCE

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By

JULIE MARIE FOGERSON

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A DISSERTATION IN PRACTICE

Submitted to the faculty of the Graduate School of Creighton University in Partial
Fulfillment of the Requirements for the degree of Doctor of Education in
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Abstract

Global gender equity measures consistently rank the United States relatively low when it comes to equal opportunity for advancement and leadership positions for women. Leadership roles in architecture and engineering have the lowest parity percentage, with women filling 5.3 percent of managerial roles in these male-dominated industries. A qualitative phenomenological study was conducted to reveal common meaning in the promotion process for women in the architecture and engineering fields, examining specifically whether gendered communication has affected interviewees' experience in reaching higher leadership levels. Uncovering this shared meaning contributes to an explanation for an aspect of the overall gender parity problem. Nineteen women, working in various architectural or engineering roles, with 15 to 30 years of experience, were interviewed. Findings indicate gendered communication is a hindrance to advancement, as well as presents an opportunity, and gender bias relates to and affects aspects outside of communication. Results also supported existing research concerning challenges that stem from the lack of parental leave in the United States, in addition to revealing a particular timing issue for architects and engineers with regard to becoming licensed. Solutions include a diversity and inclusion initiative and implementing a gender inclusive parental leave program.

Keywords: Leadership, gender gap, gendered communication, professional advancement, gender bias, diversity and inclusion, parental leave, engineering, architecture, qualitative, phenomenological

Dedication

I want to thank my family, friends, and colleagues for recognizing my passion as

a lifelong learner and supporting me in a googolplex of ways on this never-ending quest.

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I thank my dissertation committee, Dr. Watwood and Dr. Murnane, for their feedback and guidance throughout the process. I also thank my husband, Adam, and son, Taylor, for bearing the burden of less time during the entire doctoral program and the complete support of my love of learning. My parents, Rose and Richard Fogerson, instilled in me early the importance of education and were gracious also when time simply did not allow for togetherness. I thank my colleagues Don Melendez and Jane Pavek for always asking about what I was learning and how I was progressing. I am grateful to my cohort peers, Neena Nizar and Erica Shook, for being partners in the pain and pleasure of deadlines and progress. Finally, my deepest gratitude goes out to the study participants whom I cannot name here. I knew some in advance, and others were strangers scattered across the country, but all 19 gave of their time and energy to make this project possible. They did so without any expectation of personal benefit now or in the future, and it is my hope their gift of time and thoughtfulness will help lead to benefit not only for them but also greater society.

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CHAPTER ONE: INTRODUCTION

Introduction and Background

United States Department of Labor (2015) data shows that women of working age outnumber men and have attained higher levels of education than men. Recent data reveals also that the number of women-owned businesses has been growing, with women owning nearly 40 percent of United States-based companies (American Express, 2017). However, the latest Global Gender Gap Index ranked the United States at 49 out of 144, demonstrating an ongoing disparity regarding equal pay and representation in senior levels of leadership (World Economic Forum, 2017). Architectural and engineering positions demonstrate the lowest parity percentage, with only 5.3 percent of women filling leadership roles (United States Department of Labor, 2017).

These inequalities directly affect more than half of the country's contributing population and therefore, poverty rates and the American economy (Milli, Huang, Hartmann, & Hayes, 2017). International economic organizations have recognized also the missed opportunities related to gender inequity. Countries are not able to take full advantage of human resources (Munin, 2012). Improved gender balance can have a positive effect on numerous organizational outcomes (Hunt, Layton, & Prince, 2016). Diversity also reportedly benefits even the individual employee, affecting job satisfaction and engagement (Hills, 2014). To explore this leadership gap, a qualitative study was conducted to examine interpersonal, gendered communication differences in the architectural and engineering fields.

Existing research has posited that women and men communicate differently (Winter, Neal, & Waner, 2001). It also has suggested this may have an effect on women reaching higher leadership levels (Weinberg, Trevino, & Cleveland, 2015). Tannen (1990) explored many concepts related to gendered communication, covering perceptions regarding context and content. Some professional environments might dictate that women adopt a style not their own to either be, or be perceived as, effective (Kolehmainen, Brennan, Filut, Isaac, & Carnes, 2014). Yet research shows also that when women communicate in a manner that is not considered gender typical, other challenges for females ensue (Hippel, Wiryakusuma, Bowden, & Shochet, 2011). Consequences include, but are not limited to, perceiving a woman as bossy, critical, or "witchy" (Kolehmainen et al., 2014). Women additionally may experience gender identity threat in the workplace (Meister, Sinclair, & Jehnb, 2017). When threatened, Sinclair, Carlsson, and Björklund (2016) found that women either decrease their agentic, or stereotypical male traits, or they increase their communal, or female, self-presentation traits. Finally, research shows that agentic traits remain most commonly linked with leadership capability (Aaldering & Van Der Pas, 2018).

In this qualitative study, the researcher explored the female promotion experience in the architectural and engineering fields, including review of whether a female communication style appeared to affect career advancement progression and perceived leadership effectiveness. Nineteen interviews were held and leveraged to explore women in these industries' experience with advancement, their perceived communication traits and styles, as well as ascertain any effect on becoming leaders and managers at their firms.

Statement of the Problem

There are fewer women than men in senior leadership positions globally and in the United States (World Economic Forum, 2017). This disparity is more pronounced in several male-dominated fields, including construction, engineering, and finance, with only 5.3 percent of women filling leadership roles in architectural and engineering firms (Meister et al., 2017; United States Department of Labor, 2017). It is critical to continue examining why gender leadership inequity persists in the United States, when research has shown already that gender diversity within organizational leadership positively affects businesses (Dunphy, 2004). It has been demonstrated that diverse teams are more effective (Noland, Moran, & Kotschwar, 2016). Also, when in the top quartile for gender diversity, companies are 15 percent more likely to have greater financial returns (Hunt et al., 2016). Increased innovation is another benefit of gender diversity (Díaz-García, González-Moreno, & Sáez-Martínez, 2013). Finally, relations-centric activity such as diplomacy is positively affected by participants seeing like representation in the joint effort (Rahman, 2011).

This study utilized a phenomenological approach to explore the female promotion process and examine whether communications style appeared to affect promotion for female participants. Specifically, the researcher studied the promotion process for American women, with 15 to 30 years of work experience, to senior leadership roles in the architectural and engineering industries. By leveraging a phenomenological approach to examine the promotion process for the target population, a shared experience emerged that helps contribute to an explanation for why gender leadership inequity persists to such a high degree in architecture and engineering.

Purpose of the Study

The purpose of this phenomenological study was to uncover common meaning in the promotion process for women in the male-dominated architecture and engineering fields. The researcher examined also whether gendered communication has affected interviewees' experiences in reaching higher leadership levels in these two fields. This purpose was accomplished by interviewing 19 women, who are working within the male-dominated architectural and engineering industries. Research results prompted related areas of inquiry in other fields, and proposed solutions may have an impact beyond the two types of firms.

Research Question

The overall research topic is unequal gender representation in senior leadership levels in the United States. The following research question guided this qualitative study:

What role does gendered communication style play in the experiences of American women seeking promotion, who are 15 to 30 years into their career, within the male-dominated architectural and engineering fields?

Aim of the Study

The aim of this study was for the researcher to uncover shared meaning in the experience of women seeking promotion and to contribute to an explanation for an aspect of the gender parity problem. It was anticipated that this could help inform the practice, leading to new policies or processes that pertain to diversity education and championing, as well as greater workplace flexibility and resource allocation. Solutions should help reduce gender bias, improve employee engagement, advance employee contributions, and deliver stronger business outcomes.

Methodology Overview

A qualitative study, with a phenomenological approach, was employed to explore any gendered communication effect on the female promotion process (Creswell, 2013). The researcher sought to uncover shared meaning in the female promotion experience that contributes to explanations for fewer women in American senior leadership levels in the architectural and engineering fields. The researcher captured information shared by participants as to what they encountered when seeking a promotion and/or career pathing. Several themes emerged from the experiential information provided by participants through these qualitative interviews.

Phenomenological methodology was deemed most appropriate for this study, as the researcher examined participant experience with promotion as a phenomenon. This approach included interviews with women, working in the male-dominated architectural and engineering industries, who have 15 or more years of experience in their career. Latham (2018) indicated that 15 to 20 interviewees can be considered an ideal sample size for this methodology. Snowball sampling was leveraged to secure participants, with 19 interviews allowing the study to achieve saturation and produce an evidence-based solution (Cohen & Arieli, 2011).

Definition of Relevant Terms

The below terms are used operationally within this study.

Agentic: Stereotypical male traits such as determination, aggression, and competitiveness (Abele, 2003).

Communal: Stereotypical female traits such as sensitivity, compassion, and sympathy (Abele, 2003).

Communication: The exchange of information between two or more human beings, with interpersonal communication as the focus for this study (Merriam-Webster, 2018).

Equity: Equal access to opportunity and fair treatment in pursuit of professional advancement opportunity (Ramamoorthy & Stringer, 2017).

Gendered communication: Communications traits and characteristics that stereotypically differ between male and female communications (Locander & Ladik, 2017).

Leadership: For the sake of this study, World Economic Forum (2017) qualifications were employed, leveraging the criteria this organization uses such as attaining a formally recognized board or organizational leadership position.

Licensure: Both architects and engineers pursue intensive testing to become "licensed" in their fields an average six to eight years into their careers (Stratigakos, 2016).

Male-dominated: An organization in which men have most of the power and influence (Collins, 2018).

Parental leave: An inclusive term to provide leave opportunity for both genders in having a child or serving as a caregiver (Barnes, 2018).

Snowball sampling: A recruitment strategy where existing subjects recruit additional participants from among those people known to them (Cohen & Arieli, 2011).

Of note, while the author's view of leadership is comprehensive, it was necessary to limit the leadership term to recognizable and formalized leadership positions for the sake of exploring the gender leadership gap.

Delimitations and Limitations

Delimitations for this study included the selection of the phenomenological

approach. The intent was to understand commonalities in the interviewees' experience to

contribute to explanations for fewer women in higher leadership levels. This made

phenomenological methodology appropriate to explore experience with the promotion of

women in the architectural and engineering field as a phenomenon (Creswell, 2013).

Additional delimitations existed regarding the intended population. The focus was

on the female promotion experience in a male-dominated field for women who are 15 to

30 years into their career. The number of years of experience was leveraged as a

parameter to have a greater likelihood of participants having gone through the promotion

process more than once. Also, participants with this amount of experience would feasibly

be within reach of a more senior leadership role and may or may not already have

attained it.

Limitations that might have influenced results included possible researcher bias,

as the researcher shares similar experience and a familiarity with the target population.

The researcher is a female, working in the financial services industry, which is another

male-dominated field (Eldridge, Park, Phillips, & Williams, 2007). In addition, the

researcher is a communications professional, focusing on effective communication and

how this translates to perceived leadership ability. Therefore, the researcher disclosed

these connections to help prevent them from unduly influencing analysis and

interpretation (Creswell, 2013).

Participants reported on their experience as they recalled it during the interviews.

Therefore, it was possible that participants' interpretation and recollection of events, as

well as how participants communicated this interpretation, might not completely reflect

what actually transpired or entirely capture all relevant conversations that were had. The

study's small sample size was another limitation. With fewer interviewees contributing, it

was more difficult to say the experience was truly typical (Creswell, 2013). Finally, the

likelihood that participants would have been directly told their communication style did

or did not support advancement was another limitation.

Leader's Role and Responsibility in Relation to the Problem

Leadership played a critical role in this study. Organizational and governmental

leaders have a distinct responsibility in helping address the problem, as any policies

and/or programs are approved and implemented by them, and culture is directly

influenced by them. While progress has been made in past decades, there continues to be

a dearth of female leaders in many American industries (United States Department of

Labor, 2017). This impacts American poverty rates and the economy (Milli et al., 2017).

It affects business outcomes given gender diversity in leadership has been shown to

improve these (Noland et al., 2016). Effective communication is central to quality

leadership (Boiesa, Fiseta, & Harjinder, 2015). Interview responses were therefore

leveraged to explore personal, situational, and/or sociocultural themes, as these related to

gender, communication, and advancement.

Findings stemming from this study were used to identify and recommend

additional areas for further research, as well as contribute to evidence-based solutions

that leaders will be responsible for enacting. Findings might be leveraged by existing and

emergent leaders to increase gender parity within workplace leadership and capitalize on

the benefits of greater gender diversity (Hunt et al., 2016). Results of this study reaffirm a

need to review organizational policies relating to flexibility and resource allocation

(Metcalfe & Woodhams, 2012). Also, leaders are responsible for reframing the

discussion regarding proposed policies as inclusive of both genders (Donald, 2016).

Findings also increase support as to the benefit of strengths-based examination to

promote inclusion and development opportunities (Hoske, 2017).

Earlier studies have focused on the existence of unconscious bias, while research

that is more recent indicates this bias is possibly changing. Though researchers do not

claim bias is disappearing completely, studies suggest women should focus on strategic

development as a proactive measure over which one has greater control (Kaiser &

Wallace, 2016). Still others argue that unconscious bias continues to permeate

organizational culture, and it is important to offer not more development opportunity but

that which is developed with bias as its foundation and by those who fully understand

content and context (Madsen & Andrade, 2018). Finally, results support the need for

leadership preparation and education at much younger ages to broaden awareness of

opportunities, increase confidence, and build skills in children (Eskeles Gottfried et al.,

2011). Results affirm that existing research tools, which support leader reflection and

analysis, may be used to make team members aware and eliminate gender bias to

improve organizations (Tallerico, 1994).

Significance of the Study

This investigation of the promotion process for women in the male-dominated,

architectural and engineering fields built on existing research regarding gender leadership

inequity. The researcher sought to more thoroughly explain why there is unequal

representation of gender in formal leadership roles, as well as the role gendered

communications might play. Architects and engineers were the focus, while it was expected results would have implications for women in other industries.

This lack of parity is a problem, as studies have shown that organizational outcomes, ranging from innovation to financial performance, may be improved by increasing gender diversity in leadership (Nesbit & Seeger, 2007). Many studies have been conducted, and likely are being designed, to address the gender gap, as it continues to be a significant, global issue. Even for countries such as Iceland, which has ranked at number one on the Global Gender Gap Index for nine years running, areas of subpar performance compared with European counterparts remain (World Economic Forum, 2017). While some previously conducted research speaks to the gender gap, and other studies have explored gendered communication, there is a limited amount of research that reviewed these two aspects together.

Summary

Measures employed elsewhere in the world have had some positive effect on increasing gender parity in leadership. For example, gender quotas for governmental seats have been successful in several countries (Somani, 2013). Japan recently began offering grants to parents returning to scientific positions following childbirth after identifying its women comprised only 11 percent of its scientific workforce, which was "the lowest proportion among the 30 member countries of the Organisation for Economic Co-operation and Development" (Normile, 2006).

Despite strong theories and some implemented measures having led to improvements, true clarity as to why gender inequity persists in formal leadership has not yet been determined or fully addressed. Specifically, in the United States, the persistence

of gender leadership inequity remains multifaceted and unresolved. Therefore, a

phenomenological approach leveraged in this study built on existing research, evaluating

the promotion experience for the target population to uncover shared meaning and

contribute to solutions.

The continuation of gender inequality in leadership to a high degree in America

warrants a continued and thorough exploration (World Economic Forum, 2017).

Employing a phenomenological approach helped identify the issue and impact of

communication as it may relate to the promotion experience. A qualitative study, with

interviews as the primary means of data collection, allowed for a nuance of experience

with the promotion process that is otherwise difficult to attain. By asking questions that

examine the communications styles of experienced female professionals in the

architectural and engineering industries, this study contributes to existing literature that

seeks to explain and address gendered leadership disparity.

CHAPTER TWO: LITERATURE REVIEW

Introduction

There is a gap when it comes to gender parity in American leadership. While data

has shown that women of working age outnumber and are more educated than men, a

lower percentage of women may be found in formal leadership roles (United States

Department of Labor, 2015). Ranked at 49 out of 144 by the Global Gender Index Gap,

the United States is considerably behind many of its industrialized, peer nations. The

United States is also behind countries that are significantly poorer (World Economic

Forum, 2017). The architectural and engineering fields demonstrate the lowest parity

percentage for women in leadership, with little more than five percent of leadership roles

in these fields performed by women (United States Department of Labor, 2017).

Some existing research has examined communications, as it relates to gender

stereotypes and how this may affect interactions in the workplace, promotions, and pay

(Weinberg et al., 2015). Existing research has viewed interpersonal communication

alongside leadership in specific ways, such as the ability to negotiate, which often prizes

aggressive tactics (Walker & Aritz, 2015). However, very little research has examined

how communication styles specifically may or may not have an effect on promotion of

women to higher leadership levels (Hawkins, 2016).

This study synthesizes existing literature on the topic of women in leadership,

communication as it relates to gender stereotypes, and perceptions regarding leadership

effectiveness. It provides a foundation for a study on female communication having any

perceived or named effect on professional advancement. Literature reviewed addresses

gendered communications traits, communication in the workplace, and how

communication style impacts perceived leadership ability. The literature review sought to

identify and include whether past research into communication styles had demonstrated

that this is being leveraged to attain promotions. It examined whether communication has

been found to influence achieving formal leadership roles, within a broad range of

industries, countries, and cultures. Of final note, the word "formal" is used to define

achieving a recognized leadership title versus debating the reality that all employees are

leading all the time regardless of their ascribed role.

Gendered Communication

Concerning communication, researchers have examined stereotypical differences

between genders and what this may mean in certain professional environments

(Kolehmainen et al., 2014). There also is evidence as to how communication styles affect

genders differently in different countries and cultures (Erzikova & Berger, 2016). There

is evidence in the American communications field, a female-dominant industry, as to

gender inequity in leadership (Grandy, 2014). Some studies have reviewed what happens

when a woman adjusts her "natural" communication style to one that is perceived as

"masculine." Negative consequences often have been found in the latter case (Meister et

al., 2017). The masculine style continues to be preferred as associated with leadership

ability (Anderson & Klofstad, 2012). However, Wiskin, Allan, and Skelton (2004)

offered that women may have a communication advantage in their study, analyzing the

communications results of male and female performance in a final year assessment exam.

Zheng, Kark, and Meister (2018) indicated it is possible for women to master both

agentic and communal communications traits, blending stereotypical leader and gender

characteristics by adopting a "paradox mindset." The authors noted that while a cultural

shift is necessary within organizations, women can cope in the meantime by embracing

the paradox internally.

Communication skills have been correlated to success in a variety of settings and

countries, with some variance as to gendered communications. These included business,

education, and medicine, as well as within the United States, Canada, France, South

Africa, and Russia. Carter, Ro, Alcott, and Lattuca (2016) studied the effect of

undergraduate research on communications skills for engineering students, noting a

positive effect particularly for women. Grandy (2014) reviewed the progress made by

women in the communications field. However, results showed also that much work

remains, with only 15 percent of women serving as journalistic sources in business

magazines. Hippel et al. (2011) and Kolehmainen et al. (2014) examined what happens

when a woman changes her natural communication style to one perceived to be

stereotypically male, with neither study determining a positive outcome. Linguistic

sexism has been researched also. It explains that the rise of masculine generics and words

such as mankind took place as male superiority gained a societal foothold in the Victorian

era (Ng, 2007). Prior to this point, gender neutral terms were the norm for plurals and

more.

Some research indicates that it is the environment that requires an ideal

communication style. For example, certain high stress environments such as a hospital's

emergency room require confidently voiced, speedily made decisions and effective

delegation. When these communication requirements are viewed through the lens of a

woman's stereotypical, "natural" manner of communication, environments may dictate

that women adopt a style not considered to be their own "naturally" (Kolehmainen et al.,

2014). Pfafman and McEwan (2014) indicated women may make progress by being

"strategically" assertive.

Abele (2003) described agentic traits, including determination, aggression, and

competitiveness, as stereotypically male. The author noted also that communal traits are

perceived as feminine and include such characteristics as sensitivity, compassion, and

sympathy. Schock, Gruber, Scherndl, and Ortner (2018) said women can be successful

through a strategic blend of agency and communal styles until a point where

organizations support all styles. However, research overall has demonstrated that when

women communicate in a manner considered to be male, negative perceptions concerning

the individual females in question most often arise. These perceptions include, but are not

limited to, identifying a woman in a leadership role as bossy or critical (Hippel et al.,

2011). Negative consequences also occur for the women in their own estimation,

regarding considerations such as identity threat (Meister et al., 2017).

Interpersonal Communications

Radu Lefebvre and Redien-Collot (2013) noted that four major communication

strategies influence behavior and project outcomes. These strategies affected and

improved mentorships for entrepreneurial dyads in a Parisian business school. The four

strategies were categorized as persuasion, engagement, criticism, and provocation to

illustrate how these impact commitment, compliance, and resistance on the part of the

mentee. Carter et al. (2016) connected an individual having performed undergraduate

research to being a more effective communicator. Adding support to this point, Wiskin et

al. (2004) demonstrated an area where women excel over men by reviewing test

performance tied to answers communicated in a written exam.

Different strategies were found to correlate more strongly to different outcomes, requiring that the goal be clear to best match the appropriate strategy with the desired result. While Radu Lefebvre and Redien-Collot (2013) did not specifically associate the use of strategy with gender, analysis was performed on same-gender versus mixed-gender dyad pairs. Depending on situation and industry, a greater majority of studies recommend a male communication style in favor of a female one. Netshitangani (2016) agreed at least that individual traits from both genders are best suited to certain circumstances, naming an overall blended or flexible approach best. Whereas, if one "sounds" male according to Anderson and Klofstad (2012), as in has a deep voice, one is more likely to be perceived as effective. Yet, according to Nicolai and Demmel (2007), female physicians were perceived to be more effective by their patients in terms of communicating with greater empathy.

With emotionality more commonly attributed to female communication, Brescoll and Uhlmann (2008) addressed the presence of emotion in the workplace. The authors reviewed specifically the expression of anger by males and females, whether this translated differently according to position, and the perception of males and females of those who were expressing anger. Men were able to express anger and be perceived positively, whereas women were not, and the position of the woman expressing anger was irrelevant. The authors noted that whether a CEO or entry level employee, female anger was perceived negatively by both the women and men perceiving it.

Supporting assertions concerning emotion, Brooks (2011) analyzed the public's perception of male and female candidates when expressing anger or sadness. While the author noted that females are perceived more negatively when getting angry or crying,

the study did not confirm the genders are penalized differently as a result. The

importance of language also should be underscored in that leader word choice can be

biased, producing different outcomes for the different genders (Valley & Graber, 2014).

Stereotypical Communications Traits and Strategies

Kolehmainen et al. (2014) wrote that residents leveraging stereotypically male

behaviors most effectively led successful "codes," or cardiopulmonary resuscitations.

The authors noted that female participants reported employing strategies to embody these

male traits when needed. A focus on training residents to leverage the male

communication style during the education process was recommended. And in the field of

education, Netshitangani (2016) indicated various obstacles can be overcome by

leveraging multiple communications styles and traits, blending those traditionally known

as either male or female for optimal results. However, this latter study was a narrow look

at a singular, rural school in South Africa.

Hippel et al. (2011) discussed that women threatened by the stereotype of men as

better leaders will choose to adopt a masculine style. The authors noted that self-

affirmation can reverse this change. Also, women who adopt a masculine style are

perceived negatively. Since Hippel et al. (2011) demonstrated that a woman adopting a

male style may not be viewed positively, this appears not to be an effective option for

women seeking advancement, which Sinclair et al. (2016) suggested was "getting along

or getting ahead."

Baker (1991) supported the existence of the gendered communication stereotype,

as well as noted it is not as easy as simply changing from a female stereotypical style to

that of a male. The author said that "reciprocal" support from an organization's current

leadership is necessary for women to be perceived positively in employing male

communication traits. Observers need to see that breaking the gender norm is acceptable.

The author noted also that women take fewer turns in conversation and men interrupt

more often. Hale (1999) affirmed in a study of workplace gendered communication the

perception women have of being interrupted by men and the need to repeat intended

points to feel heard and/or acknowledged. Women also reported that an idea they have

already expressed feels "heard" only when a man repeats it. This point was prominent in

a study of children and communication within and between genders. Cook, Martin,

Nielson, and Field (2018) studied gender bias in children's communication, noting that

girls perceived boys interrupt more often, which leads to a greater comfort

communicating with one's own gender. The study proposes that more support navigating

mixed gender conversations at younger ages could have benefit later in mixed gender

communication situations, which is also supported by authors Halim, Ruble, Tamis-

Lemonda, Shrout, and Amodio (2017).

    Johnson and Aries (1983) and Johnson and Scult (1986) focused more specifically

on female communications traits, as well as societal language that undermines women.

Nilsen (1985) examined how communication itself can be used to promote a certain

gendered image or stereotype that society then seeks to make real. For example, visual

communications are leveraged to reinforce the belief that men "must" be taller. Thusly,

taller women are seated and/or shorter men are propped up on stools. Mallette (2017)

offered an experiment that had students guess the gender responsible for various written

communications. The author's students guessed incorrectly thus begging the question as

to whether gendered communication does exist. Approaching this question in another

way, Hussey, Katz, and Leith (2015) explored gendered communication as an interactive

exercise, noting that in conversation, participants are likely to repeat certain language

tokens, having heard the initiator voice one, regardless of the token being gendered or

not. However, the authors did see this repetition increase in same gender versus mixed

gender pairs.

Communications in the Workplace

Existing research recognizes the role that communication style plays in the

workplace regarding leadership effectiveness (Hippel et al., 2011). Effective leadership

has been examined both in terms of perception and reality. For example, Kolehmainen et

al. (2014) offered that stereotypical, female communication traits may be perceived as

tentative, lacking in confidence, and therefore unsuited to decision making and/or leading

a team. Communication style has been demonstrated to impact leadership effectiveness

and team performance (Boiesa et al., 2015).

Articles by Buttner (2001), Chávez and Griffin (2014), Erzikova and Berger

(2016), Grandy (2014), Hawkins (2016), Koch (2004), Mazerolle, Borland, and Burton

(2012), Place and Vardeman-Winter (2017), Schulte, Slate, and Onwuegbuzie (2010),

and Tench, Topić, and Moreno (2017) reviewed female communication from the

perspective of perceived leadership ability in the workplace. The question as to why

studies focused on women in communications are still relevant was addressed, as well as

how women fare when communicating in the workplace. Isaac (2016) noted the

importance of nonverbal communication and how the context for this can vary by gender

when attempting to effectively communicate and ensure a message has been received.

Traits Indicating Leadership Emergence Potential

Hawkins (2016) suggested that task-oriented communication is a predictor of

emergent leaders in a small group setting. However, the author found no significant

difference evidenced between genders in the decision to use task-oriented

communication. Men and women were equally successful in leveraging this narrow band

of the communication spectrum in the small group setting for this study.

Mazerolle et al. (2012) examined the experience of female athletic trainers, noting

challenges exist, while study participants confirmed several factors can help mitigate

these obstacles. Clear communication and expectation setting was named as a critical

way to achieve success in this role. Examining the education field, Schulte et al. (2010)

found a principal's leadership important to improving student performance. However, no

statistically distinguishable differences were present concerning gender or gendered

communication. Even if not feeling discrimination outright, female participants in some

studies have reported not having "full access" to resources or a sense of belonging. They

felt unintentionally left out (Mewburn, Cuthbert, & Tokareva, 2014).

Aaldering and Van Der Pas (2018) reviewed media coverage of female and male

politicians, expanding to include the entire election cycle versus that solely of the period

during a campaign. The authors noted that it was less about gendered stereotypes during

the campaign. More specifically, they revealed that gender activated certain stereotypical

gendered leadership traits, which were more likely to receive media coverage. Also,

voters more positively associated these traits with leadership. These characteristics were

considered stereotypically male, so males thusly received more media coverage.

Follower Perceptions of Male and Female Communication Styles

Analysis performed in various countries and cultures revealed that both genders confirmed communication as it relates to leadership is important. Communication style is also frequently, subconsciously tied to leadership in studies to a point where it seems these two concepts are almost interchangeable. Buttner (2001) reviewed how women may be freed from societal and/or cultural expectations when choosing to build their own business. Further, a female management style can be highly effective in the aforementioned scenario, as it is not hampered by or dependent upon existing organizational norms. Meister, Sinclair, and Jehn (2015) analyzed how women perceive follower perceptions can lead to internal identity asymmetry, conducting a study on women in engineering and construction, who end up navigating multiple asymmetries. Women in these industries face misidentification based on gender, age, and competence.

A Russian study's authors, Erzikova and Berger (2016), declared that women generally avoid the leadership role, and men generally view women as incapable of managing the role. This view is reflected in Russia's cultural leadership makeup, where "94% of higher level state positions are occupied by males" (Erzikova & Berger, 2016). While public relations is a communications specialization, and though it has largely been feminized in countries such as the United States for a variety of reasons, this has not occurred in Russia.

Regardless, women as effective communicators have not been entirely recognized in the United States either (Grandy, 2014). Place and Vardeman-Winter (2017) and Tench et al. (2017) supported this point, specifically regarding the lack of female leaders in the American public relations field. Detert and Trevino (2010) studied the importance

of the leader in silencing or encouraging employee voice when it comes to comfort levels in raising an issue.

Koch (2004) reviewed the use of visual cues to explore whether perception of a leader's gender contributes to a view of that leader's effectiveness. The study showed that while participants did use different cues for identifying emotionality and dominance, they did not in the case of effectiveness or competence. With gender results for effectiveness and competence relatively indistinguishable, Koch (2004) argued that a visually induced idea of the leader's gender, versus one supplied by verbiage alone as had been done in previous studies, does not contribute to whether he or she is viewed as more capable. In a study on gender, transformational leadership, and follower perceptions, Saint-Michel (2018) concluded that women who self-describe as either agentic or communal are more likely to be viewed by followers as transformational versus men who self-describe.

Women in Leadership

There are fewer women in senior leadership levels (World Economic Forum, 2017). Existing literature attempts to explain this by examining stereotypical leadership style, family life, the female's role in having and raising children, organizational culture, how children are raised, and how and whether women are supported at work (Cunningham-Parmeter, 2013). In addition, the perception of past women as less agentic contributes to fewer women in male-dominated fields today (Bikmen & Krumholtz, 2018). Literature also has reviewed how this has shifted positively over the years (Metcalfe & Woodhams, 2012). At the same time, research continues to demonstrate an organization will benefit from gender diversity in leadership (Nesbit & Seeger, 2007). With regard to scholarly explanations for fewer women in senior leadership, the focus is

mainly on two areas, which include family life and/or organizational culture. Having

children, as well as how a society treats children and gender in terms of familial and

leadership roles, is an ongoing area of discussion. Within organizations, literature has

examined how women already in senior levels contribute to the advancement of other

women. This has included a focus on mentorship and supervision (Hoyt, 2010). It also

has revealed the relevance of career referents, with women having generally lower

expectations for success given there are fewer women in higher levels with whom to

identify (Gibson & Lawrence, 2010). Researchers also recognize several cultural barriers

to making positive change.

     Diversity contributes to policy innovation and improved organizational outcomes

(Seo, Mathad, Downs, & Reif, 2017). Freifeld (2016) reported that gender leadership

diversity contributes to better financial performance. Innovation, also, is increased as

gender diversity increases (Díaz-García et al., 2013). Lammers and Gast (2017) discussed

how focusing on female leadership advantages can be detrimental to females securing

advancement opportunities, contributing to zero-sum perceptions. Research affirms a

need to consider the quest for gender parity not as a zero-sum competition whereby one

gender loses as another gains equity (Kuchynka, Bosson, Vandello, & Puryear, 2018).

Zhou (2013) outlined that prized leadership traits continue to be perceived as "decidedly

masculine." Regardless, Lopez and Ensari (2014) determined women should work to

enhance their more prevalent and natural "charismatic" leadership traits versus adopt

those perceived as male and autocratic.

Family Life as it Impacts Female Advancement

The view of having and raising children is indicative of whether society treats genders equally. Cunningham-Parmeter (2013) relayed that young, childless women make about the same pay as men, and it is when women have children that women's earnings drop to sixty percent of what men make. The author further explored the challenges men face in trying to increase their contribution to home life as caregivers. There are instances of men being penalized and courts favoring employers in the much fewer male prompted caregiver discrimination cases. While women are more likely to find favor with the courts in these types of lawsuits, the caregiver burden remains on the woman (Maxwell, 2012). Women cannot achieve more in the workplace until they can more equally share responsibilities at home, and men cannot share in these responsibilities until pressure is relieved in the workplace. Gender pay inequity is yet another contributing factor as to who serves as the primary caregiver (Tether, 2017).

Lottes (2013) affirmed support for promotion of sexual rights, particularly arguing these should be considered as part of human rights. A case study conducted by Marlow and McAdam (2012) found relative success for its case member in creating her own company when finding opportunities were limited in the male-dominated technology field. This was made possible in part by the case member's husband becoming the primary caregiver. A study of black African women in dual-career couples in leadership determined these women's careers stalled in both members of the couple's perception after taking parental leave (Motaung, Bussin, & Joseph, 2017).

In addition, the way children are raised and taught is critical to becoming a recognized leader or performing a non-traditional gender role (Eskeles Gottfried et al.,

2011). Sansone (2017) explained that teacher gender matters with regard to encouraging

interest in science and math in both student genders. However, the study further noted

this effect is eradicated by the teacher's belief system and treatment of genders. Riegle-

Crumb and Humphries (2012) supported the assertion of teacher belief and bias being

indicative of how white males and white females would be evaluated in math. Sinclair

and Carlsson (2013) go further, analyzing the effect of gender identity threat in

adolescence. The authors stated there is a causal link between identity threat at young

ages and stereotypical occupational choice, whereas other threats, such as comparison

threat, do not produce the same outcome.

      If, and when, women leave the workforce to have children, the promotion path

has been traditionally affected. When societies offer men and women similar benefits,

including maternity and paternity leave, gender diversity improves (Hoyt, 2010).

Metcalfe and Woodhams (2012) examined several societal and organizational shifts

relating to the evolution of women as recognized leaders. Dworkin, Ramaswami, and

Schipani (2013) explored the benefit for women who have had children of having a

professional support network. Cheung and Halpern (2010) highlighted notably how

having a family in fact improves the ability to navigate relationally within the business

environment. Furnham, Reeves, and Budhani (2002) reviewed British parental perception

as to intelligence of their differently gendered children. The authors painted a bleak

picture, where parents overall rated their sons as having higher IQs than their daughters.

Cultural Considerations for Promotion in an Organization

Within the organizational environment, literature has offered discussion on

whether women in senior levels are available to serve as mentors and promote women

rising through the ranks (Hoske, 2017). Gender disparity is more pronounced in several

male-dominated fields such as engineering, where factually, there are fewer women in

formal leadership levels. Therefore, there are fewer women to assist in the support and

promotion of women entering the field (Meister et al., 2017). Researchers noted that

several cultural barriers exist, including the lack of referents, unconscious gender bias,

and modern sexism (Gibson & Lawrence, 2010).

Watkins et al. (2006) posited that "modern sexism" exists. This version of sexism

dictates that regardless of which gender of leader is available, individuals will turn more

to men than women in seeking career advice, and they will consequently be more

successful in achieving promotions. Internalized sexism was noted as higher for female

students than male students when interacting with a female versus male college educator

via written communication (Thomas-Tate, Daugherty, & Bartkoski, 2017). Powell (2018)

discussed this informality between female students and female professors as well. Sexual

harassment continues to be an issue globally, having achieved more significant notice

within the last two years (Latcheva, 2017). Repeated attempts to clarify what constitutes

harassment in a legal sense create others challenges regarding comradery and teamwork

(Paul, 2006).

It is worth confirming yet again that organizational research has shown diverse

teams to be more effective (Noland et al., 2016). Sandgren (2012) said that Fortune 500

companies, with at least three women on their board of directors, "outperform" other

companies without women across different industries. At the same time, studies have

noted that women and men as managers are more alike than they are different (Schipani,

Dworkin, Kwolek-Folland, Maurer, & Whitman, 2006). Since the business case has been

largely made, as this relates to how diversity improves business outcomes, it seems that

American business culture has not transformed to follow.

Hoske (2017) determined that mentoring is even more important in fields where

women are underrepresented. Sherman Newcomb, Beaty, Sanzo, and Peters-Hawkins

(2013) stressed the importance of mentorship for women professionals as well,

specifically in the education space. Finally, both genders can benefit from mentoring

specific to the other, with Winter (2006) outlining the benefits of male military members

receiving diversity training.

Bastounis and Minibas-Poussard (2012) reviewed the "belief in a just world," or

BJW concept, as it relates to perceptions of gender inequalities. The authors noted that

the higher the individual's BJW score, the more likely they were to believe no workplace

inequality exists in the first place. Pacilli, Spaccatini, Giovannelli, Centrone, Roccato

(2018) affirmed this in an alternative way, analyzing anxiety levels in women who

experienced hostile sexism and the mediating effect that having a high system

justification belief has on anxiety. If one believes the system is correct, one is less likely

to be concerned with hostility. Further, Cislak, Formanowicz, and Saguy (2018) revealed

a bias against conducting research on gender bias, with fewer projects funded and

published in less respected journals, making the issue less known and less examined for a

solution than it otherwise could be.

Melero (2011) analyzed how organizations are run differently by men versus women. Parker (2001) took a more targeted approach, interviewing African American women as to leading and communicating within a male-dominated organization. Pearson and Trent (2004) provided a more positive perspective on the gender equality gains that have been made, while discussing the work that remains. Salas-Lopez, Deitrick, Mahady, Gertner, and Sabino (2011) offered additional perspectives from women regarding women in leadership. Hogue and Lord (2007) outlined that fewer women in recognized leadership positions affects a woman's ability to informally contribute as well. Finally, Wolfe and Powell (2009) examined communications and leadership most specifically of all, regarding this dissertation's topic, looking at the engineering field and its biases. The authors concluded that the bias against female speech, where weaknesses may be often and routinely acknowledged, is more strongly felt by male engineers than by male non-engineers.

Bielby (2000) recommended a formalized process to help address conscious and unconscious bias in promotion opportunity. The author outlined the job relevant requirements should be clear, there should be a clear path for all interested parties to apply, and there should be oversight for hiring decision making and a need to justify the hiring choice. In a similar vein, Brumfiel (2008) wrote about the discrepancies in conference allocation for physicists, using statistics for papers written as a demonstration of productivity, claiming women produced significantly more than male counterparts yet were awarded one third of conference presentations. The recommendation here also was transparency in allocation, making the standards and selections clear and justifiable. The need for clarity was further supported in Guy's (2014) analysis of second-generation bias.

The author wrote that while unintentional and not necessarily overt, the way job requirements are worded and the lack of openness to apply contributes to gender biased advancement opportunity.

Brown, Fluit, Lent, and Herbert (2013) analyzed the cultural change for surgeons, attributing this to a generational shift. Study participants more greatly prioritized work and life balance than did their earlier counterparts, and while both genders equally considered balance important, the authors noted that women struggled more than men to create a balance. In discussion of educating youth, Byron and Hunt (2017) made reference to the Internet, or mechanisms less formal than schools or workplaces, being an ideal opportunity to create a culturally inclusive and useful network. However, Heilman, Caleo, and Halim (2010) noted an increase in gender related stereotyping in computer versus face to face interactions. This was the case, as these interactions were facilitated by anonymity and deindividualization, which is more inherent in electronically mediated interactions. Heilman (2012) focused in a later study on how descriptive and prescriptive gender stereotyping creates a disconnect between what women actually can do and are perceived as being capable of doing. Finally, Güngör and Biernat (2009) focused on blue collar roles, determining women were less likely to be hired in the first place when a job is considered "male." The authors noted motherhood was less relevant than stereotypical perceived characteristics associated with these jobs, rendering advancement irrelevant.

Woodington (2010) offered that because gender stereotypes stem from longstanding societal roles and are embedded at the cognitive level, it is difficult to disassociate these role characteristics from the genders known to have been traditionally fulfilling them. However, the author said also this has a negative effect on both genders,

affirming the difficulty of a male to choose to be a caregiver. Scott and Brown (2006)

concurred, saying agentic leadership traits are encoded in male behavior, without the

observer being aware this is happening. Leicht, Randsley de Moura, and Crisp (2014)

found a positive ability to change gendered leadership perceptions by exposing

individuals to counter stereotypic role models, such as a female engineer or a male

midwife. Women of color face an even larger lack of proportional representation (Turner,

2002). Also, minority females face a double penalty specifically in science and

engineering (Tang, 1997).

Summary

Data shows there is an issue regarding gender parity for American leadership

(United States Department of Labor, 2017). Articles reviewed supported general

agreement as to there being differences in gendered communication, while some research

indicated differences are perhaps less drastic than perceived. Researchers also agree that

communication style matters with regard to effective leadership, and some studies

seemed to interchange the concepts, with leadership representing what is being

communicated. However, when the concepts are separated, there is disagreement overall

and a lack of specificity, as to how gendered communication styles may or may not

contribute specifically to female advancement in the workplace. The area has not been

adequately explored, while inferences can be made given a generally negative view of

female communication and how it stereotypically correlates to preferred leadership traits.

Depending on which industry, what country, and which type of role, literature results

varied greatly as to how successful a stereotypically female communication style might

be in achieving a leadership role.

The majority of articles reviewed were written in the last ten years. Therefore, results seem to be less a matter of deliberate societal progress and more a result of time passing and the situation evolving. Despite this, literature supported the concept that as the definition of leadership continues to embrace diversity of opinion, including more forms and more people, so too do varied ways of communicating become more acceptable as relates to career advancement and the possibility of gender equity in higher levels of organizational leadership. Literature also affirmed the notion that an organization can choose to be transformational in its support and promotion of multiple communication and leadership styles, as all having value and benefit to an organization.

CHAPTER THREE: PROJECT METHODOLOGY

Introduction

This qualitative research study included interviews with women in the architectural and engineering fields. The researcher leveraged snowball sampling to locate women in both fields, performing a variety of roles throughout the United States (Creswell, 2013). These industries were selected due to having demonstrated the lowest gender leadership parity percentage, with only 5.3 percent of women in managerial positions and 14 percent of women total in the two fields (United States Department of Labor, 2017). Existing research had demonstrated that women and men communicate differently (Tannen, 1990; Winter et al., 2001). Therefore, gendered communication provided an area worth exploring to ascertain whether and how this may relate to female advancement.

This study examined the promotion process for women and explored how communication style may affect promotion. The purpose of this phenomenological dissertation in practice study was to uncover common meaning in the female promotion experience. The researcher sought to identify whether gendered communication had affected interviewees' experience in reaching higher leadership levels in the architectural and engineering fields in particular, as well as the United States in general. This purpose was accomplished by interviewing 19 women, who are working within the male-dominated architectural and engineering industries.

Research Question

The overall research topic is unequal gender representation in formal leadership levels in the United States. The following research question guided this qualitative study:

What role does gendered communication style play in the experiences of American women seeking promotion, who are 15 to 30 years into their career, within the male-dominated architectural and engineering fields?

Research Design

A phenomenological approach was leveraged for this qualitative study. The researcher questioned whether communication influences the promotion experience. The researcher worked to uncover shared meaning to contribute to an explanation as to why there are fewer women in American senior leadership levels, reviewing specifically the architectural and engineering fields due to having the lowest leadership parity percentage. This study's results prompt related areas of inquiry for women in other industries.

Qualitative interviews focused on participant experience, with results collected and analyzed to contribute to an explanation. Phenomenological methodology was deemed appropriate for this study, as the researcher explored the phenomenon of the promotion of women in the engineering and architectural field to provide an actionable explanation.

This approach involved interviewing 19 women, working in the male-dominated architectural and engineering fields, who have between 15 to 30 years of experience in their career. Latham (2018) said that approximately 20 interviewees can be considered an ideal sample size for a phenomenological study. Therefore, the researcher worked to obtain 20 participants working within the architectural and engineering fields. However,

saturation was achieved with 19 participants. "This number was reasonably realized

given the United States Department of Labor (2016) estimated there are approximately

2.5 million people employed in the two fields. With an estimated 14 percent of women in

the architectural and engineering industries, the potential population size was roughly

350,000 before allowing for delimitations (United States Department of Labor, 2017).

Participants/Data Sources

Interviews were conducted with 19 American women, who have between 15 to 30

years of experience in their careers and work within the male-dominated architectural and

engineering industries. Anonymity has been provided by removing identifying details

from participant responses quoted in this study.

The architectural and engineering fields were selected given data has

demonstrated these industries have the lowest gender parity percentage in leadership

roles. The experience parameter was set based on the likelihood of women, at this point

in their career, having attempted a promotion to a more senior level at least once. This is

also the point where statistics for women remaining in the two fields begins to fall

(United States Department of Labor, 2017).

The sample was attained by approaching seven women initially, who are known

to the researcher. These seven women were in the target population, living in different

areas of the country, working for different organizations, and performing different roles.

These women were then instrumental in securing the additional participants required

through snowball sampling (Creswell, 2013). These women also proactively leveraged

distribution lists for their professional member organizations, distributing the study's

synopsis and consent form to their colleague networks. Advantages for snowball

sampling include a greater ease in identifying willing participants, who meet particular

parameters, and the ability to discover participants with unknown characteristics that

could prove useful. A disadvantage is that the sample is not truly random (Cohen &

Arieli, 2011).

The initial seven participants known to the researcher helped procure an

additional 13 potential interviewees of which 12 were able to contribute to the study. The

final member of the 13 who reached out confirmed a meeting twice and cancelled both

times for scheduling reasons. Saturation was reached with the 19 participants who

completed the interview.

Permissions were not required to access the initial sample. To minimize risk and

ensure participants secured through the snowball sampling method were amenable to

being included, initial subjects were asked whether they would be willing to pass along

the consent form to other potential subjects (see Appendix B). Having received the form

from a trusted colleague, these potential subjects then directly contacted the researcher

after determining their own interest and willingness to proceed.

Data Collection Tools

The primary data collection tool was qualitative interviews. Interviews were

conducted with 19 participants and focused on participant experience, with 15 primary

questions asked. Additional detail regarding data collection tools follows.

Interviews were semi-structured, using the same baseline questions (see Appendix

A). Deeper exploration of responses and emergent themes was anticipated and required,

as the 19 interviews progressed (Creswell, 2013). These interviews were conducted and

recorded either in person or by phone. Participants were located throughout the country,

which eliminated leveraging in-person interviews for all participants due to budgetary

reasons. Six participants were able to meet in person due to physical proximity to the

researcher.

Interview questions explored interpersonal communications and leadership

themes in the workplace, leveraging previous studies conducted on management

communication styles. Anonymity has been facilitated through the removal of identifying

characteristics. The researcher asked questions of women regarding their experience with

promotion and communication style. Personal and perceived company views on

leadership and desired characteristics for progression were explored to gain a sense of

additional experience concerning advancement. Participants' communication as to their

readiness for a promotion and whether they proactively pursued promotions was

addressed.

Interviews were appropriate to gauge the experience of working women in having

attempted or attempting to achieve a promotion. While interview questions revealed data

regarding communication styles, the interviews specifically offered the researcher the

additional opportunity to secure information on the interviewees' communication style

firsthand. This added qualitative detail was gathered through delivery and content.

The collection instrument was not preexisting. However, previously used, related

questionnaires were reviewed to inform the design of the new instrument. Measures were

employed to confirm the reliability and validity of findings as part of the study. Validity

measures included member checking and bias clarification, with three study participants

asked to review findings to better ensure confidence in analysis (Creswell, 2013).

Reliability measures included sampling rationale, analyst triangulation, and an audit trail

(Barusch, Gringeri, & George, 2011).

Data Collection Procedures

Data was collected by the researcher. All contact with study participants was

performed via their chosen method of contact. Once recruited, an interview of an average

60-minute length was held with interviewees either in person or via phone. These

interviews were recorded with participant permission. Additional, minimal, written

follow up with interviewees was conducted over a period of several months to clarify

certain points, during the transcription and analysis processes. Member checking for

results also required some follow up to confirm accuracy of analysis and findings

(Creswell, 2013).

The researcher needed to bracket to avoid intentionally or unintentionally working

to uncover supporting evidence as to any preexisting bias given the researcher's many

shared characteristics with the target population (Creswell, 2013). Member checking also

was utilized to control for the researcher's disclosed potential bias. Legal, financial, and

budgetary issues did not arise given the data collection and storage mechanisms that were

leveraged.

Ethical Considerations

There were ethical considerations, which related to ensuring confidentiality for all

participants (see Appendix B). Interviewees might have shared unflattering information

concerning their current or previous organizations. Participants were assured of

confidentiality given the data was collected offsite via offsite mechanisms to which

outside parties did not and do not have access. Following study completion, all data was moved to an external drive.

Anonymity could not be entirely guaranteed. However, this was another ethical concern. It required that responses be sufficiently stripped of identifying information for all interviewees quoted and/or paraphrased. Internal Research Board approval was obtained through Creighton University in March of 2018. From an additional, ethical standpoint, the researcher employed multiple validity check methods given close identification with the target population (Creswell, 2013).

Summary

A qualitative study, with interviews as the primary means of data collection, allowed for a nuance of experience with the promotion process as a phenomenon that is otherwise difficult to attain. By asking questions that examined the advancement experience and communications style of female professionals in the architectural and engineering industries, this study contributes to existing literature that seeks to explain and address ongoing gendered leadership disparities.

The study was completed by interviewing 19 women, who are working within the male-dominated architectural and engineering industries. An initial population of seven participants known to the researcher first contributed. These seven interviewees then through snowball sampling helped source 13 additional, interested individuals who met the population parameters and reached out to the researcher directly. One of the 13 ultimately was unable to meet. The 19 total interviews enabled the researcher to achieve saturation for the study and provide the foundation for an evidence-based solution.

CHAPTER FOUR: FINDINGS

Introduction

This study focused on the lack of gender parity for women alongside men in senior levels of leadership in the United States within the architectural and engineering fields. Labor statistics and annual reports demonstrated that women of working age currently outnumber and have outpaced men with regard to higher levels of education (United States Department of Labor, 2015; World Economic Forum, 2017). Women also have made gains toward an equal split for business ownership, with women-owned businesses reaching 39 percent of all businesses owned, according to recent analysis (American Express, 2017). At the same time, annual reports such as the Global Gender Gap Index do not demonstrate notable progress for gender parity in senior leadership levels (World Economic Forum, 2017). In fact, the United States dropped four rankings from 2016 to 2017, moving from 45 to 49 out of 144 countries examined. The lack of parity is even more pronounced in certain industries. The architectural and engineering fields demonstrated the lowest parity percentage, with only 5.3 percent of formal leadership roles performed by women (United States Department of Labor, 2017).

The purpose of this phenomenological study was to uncover common meaning in the promotion process for women in the male-dominated architecture and engineering fields. The researcher examined whether gendered communication affected interviewees' experience in their opinion in working to reach higher leadership levels within their industries.

The following research question guided this qualitative study: What role does gendered communication style play in the experiences of American women seeking promotion, who are 15 to 30 years into their career, within the male-dominated architectural and engineering fields?

Interviews were conducted with 19 women, who have between 15 to 30 years of experience in their careers and work within United States based male-dominated architectural and engineering companies. United States Department of Labor (2017) data has shown that statistics for women remaining in the two fields begins to fall ten years after graduation. Speaking with women within this experience range therefore allowed that women had remained in their career beyond the point where many have left. These women could thusly address any challenges faced at ten years and beyond in choosing to stay and in pursuing advancement opportunity.

Interviews lasted an average of 60 minutes, where 15 primary questions were asked of participants concerning their professional advancement experience (see Appendix A). Interviews were conducted in person for six participants local to the researcher and on the phone for the 13 participants who were based remotely. Phone interviews were ultimately leveraged versus video due to interviewee preference, as the phone offered interviewees greater convenience in scheduling. In addition to audio recordings, which were transcribed by the researcher, notes were taken on participant responses. The researcher's focus was on word choice and tone. These elements were present during the in person interviews, as well as the phone interviews. There was no recording of any visual observations for the in person interviews, as this could not be consistently accomplished.

The researcher asked questions to explore first the promotion experience and career paths of these participants. Questions also addressed interpersonal communications in the workplace, personal definitions of leadership, and management communication styles (see Appendix A). Deeper exploration of responses and emergent themes was anticipated and pursued during interviews (Creswell, 2013). For example, answers occasionally prompted follow up questions to explore and/or clarify emergent themes, such as the lack of maternity leave and licensure requirements. These were revealed early in the study as common issues for team members in these two industries.

Discussion related to the central research question varied. Direct findings as to whether gendered communication is preventing or supporting advancement were not present in participant experience. Results presented in this chapter mapped to four major themes, which include: (a) gendered communication style appearing to negatively affect advancement in earlier years, while presenting a positive path for professionals at this time, (b) ongoing gender bias related to and beyond communication, including the perceived technical ability of women and mothers as primary caregivers, (c) the lack of maternity leave as an industry standard, and (d) the career path for architects and engineers requiring licensure at the six to eight-year mark. Results all stem from the overall examination of gender inequity in senior leadership in architectural and engineering fields. The four themes also relate to each other. Gendered communication is a component of gender bias, and persisting bias relates to a lacking parental leave solution, with the parental leave challenge being compounded by the licensure requirement.
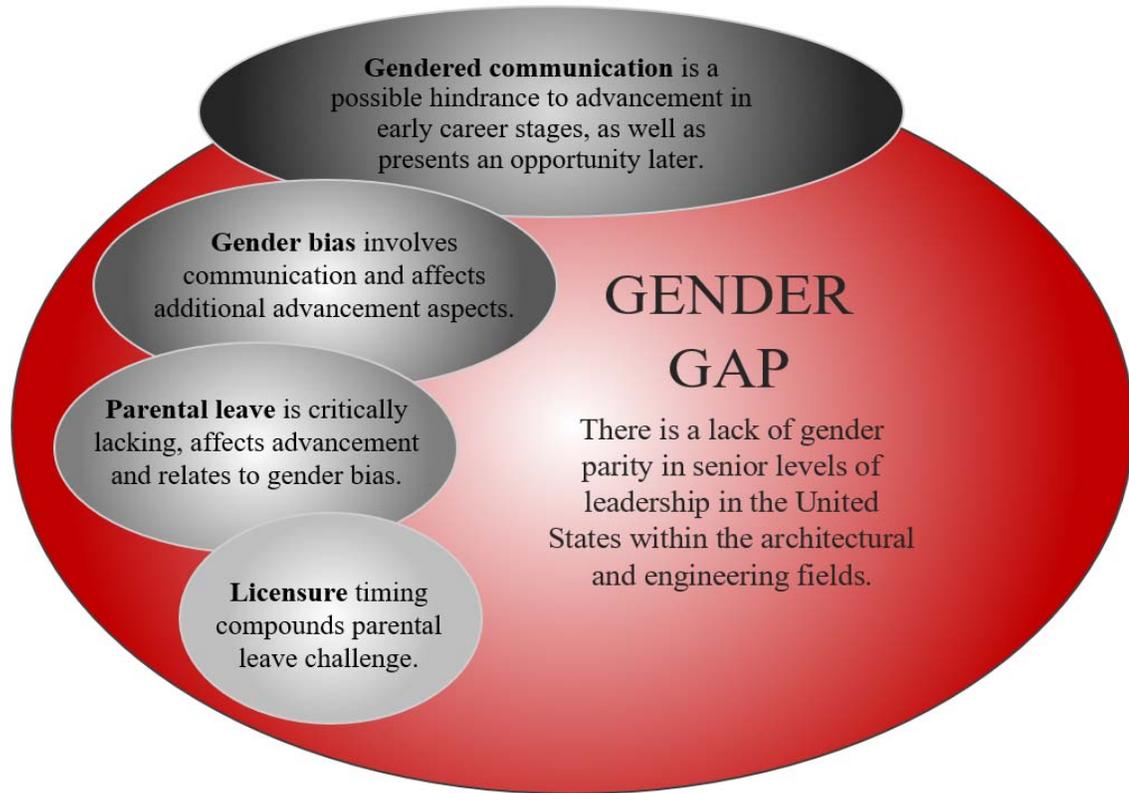
Figure 1: Gender gap study results. This figure shows results mapping to four major themes.

Presentation of the Findings

A storyline was developed to provide a framework to explain the phenomena, with an advance understanding of relevant statistics (Birks, Mills, Francis & Chapman, 2009). Despite the rising percentage of gender parity for students earning degrees in the architecture and engineering fields, this does not appear yet to translate at leadership levels or even to longevity in the professions. Equity by Design (2006) has shown that women increasingly enter and complete educational programs for architecture in relatively equal numbers to men. Arieff (2018) wrote of this also, saying "the pipeline is not the problem." While this is not as strongly the case with engineering, female graduates in engineering have increased in recent years to approximately 21% of those

earning bachelor's degrees and above 25% for those securing graduate degrees (Yoder, 2017). The aim of this study was for the researcher to uncover shared meaning in the experience of women seeking promotion and to contribute to an explanation for an aspect of the gender parity problem. The researcher therefore worked to determine reasons for the disparity among the promotion experience of the women interviewed for this study, questioning whether gendered communication seemed to affect promotion, as well as asking participants for their experience with leadership, development, and the overall promotion path (see Appendix A). Some key results fell outside of the research question, while being aligned with the overall study topic, purpose, and aim.

As outlined earlier, and specific to the above statement, the researcher bracketed personal experience and background to approach this study with as few preconceptions as possible. Bracketing included the researcher's close identification with the target population via delimitations such as country of origin, time within career, work within another male-dominated industry, and familiarity with the engineering industry specifically. In addition, the researcher is a communications professional and has experienced bias regarding gendered communication. These points of alignment led to the choice of the study's topic and contributed to its design. They were necessarily bracketed for purpose of the research, analysis, and recommendations outlined in this project. Regarding communication style, not only did the answers provide information but also the interviewees' communication style in delivering those answers during the interviews offered some additional insight. Of note, interviewees were never directly told by supervisors or colleagues that their communication style was helping them to advance or preventing them from advancement.

Results presented in this chapter mapped to four major themes. The first theme

most directly concerned the central research question and addressed gendered

communication. An opportunity presented itself in the communications-related theme

regarding the discussion of communication styles, whereby more than half of

interviewees noted their perceived and/or real abilities concerning client communications

– to build relationships and support business development – were beginning to contribute

or definitely had contributed to advancement opportunity. Interviewees noted that

business development, or "rainmaking" was a significant factor in reaching higher levels.

Second, there is an ongoing gender bias, which related partially to gendered

communication. This bias also concerned the perceived technical ability of women at

early and later ages. The scope and size of projects one has handled matters significantly

in seeking a promotion, and women reported feeling penalized due to perceived lower

technical capabilities, as well as being mothers and/or caregivers.

Women as primary caregivers and/or the lack of maternity leave as an industry

standard was most discussed concerning the overall advancement experience and fewer

women in senior leadership in these two fields. Paternity leave is reportedly nonexistent.

Interviewees proactively raised the difficulty inherent in returning to a career after

choosing to have a child given the known lack of financial organizational support. They

raised this whether they had children and/or had observed only how the decision to begin

a family had affected colleagues.

The aforementioned reality also coincided with the final major theme, which is

that these two career fields require licensure approximately six to eight years into one's

career. Achieving licensure is a time intensive and costly effort that aligns with the

average point where these professionals commonly choose to begin having children. With

women continuing to serve as primary caregivers nationwide, regardless of individual

family structure, the final two themes considered together presented the greatest

challenge for achieving gender equity in the architecture and engineering fields (Lerman,

2017).

Data Organization and Analysis

Interview responses were organized initially by question. Predetermined codes

then were leveraged by the researcher to hand code the audio interview transcripts, as

well as notes taken on nonverbal cues and key statements heard during the interviews. As

emergent codes developed during the hand coding process, these were applied to

material. An axial coding process next was leveraged. Finally, transcripts were fed

through the online computer program Dedoose, which grew out of UCLA's EthnoNotes

project, to check the researcher's determinations (Lieber, Weisner, & Presley, 2003).

There were six a priori codes used for coding the interview data including:

effective leadership, communication style, gender stereotypes, career advancement,

adjustments to natural communication, and perceptions of managerial communication as

a follower. Emergent codes included organizational support and professional

requirements associated with the fields. Combining a priori with emergent codes allowed

for strengthened thoroughness and exactness, so analysis would not be limited by the

researcher and be inclusive of participant views as these were relayed during interviews

(Creswell, 2013).

An axial coding process was used to identify and support the study's core

concepts, as well as show relatability between concepts (Babbie, 2016). Four themes

were determined, which codes mapped to, and response data across participants was

regrouped according to the relevant theme. Reliability measures included sampling

rationale, analyst triangulation, and peer debriefing, as well as an audit trail (Barusch et

al., 2011).
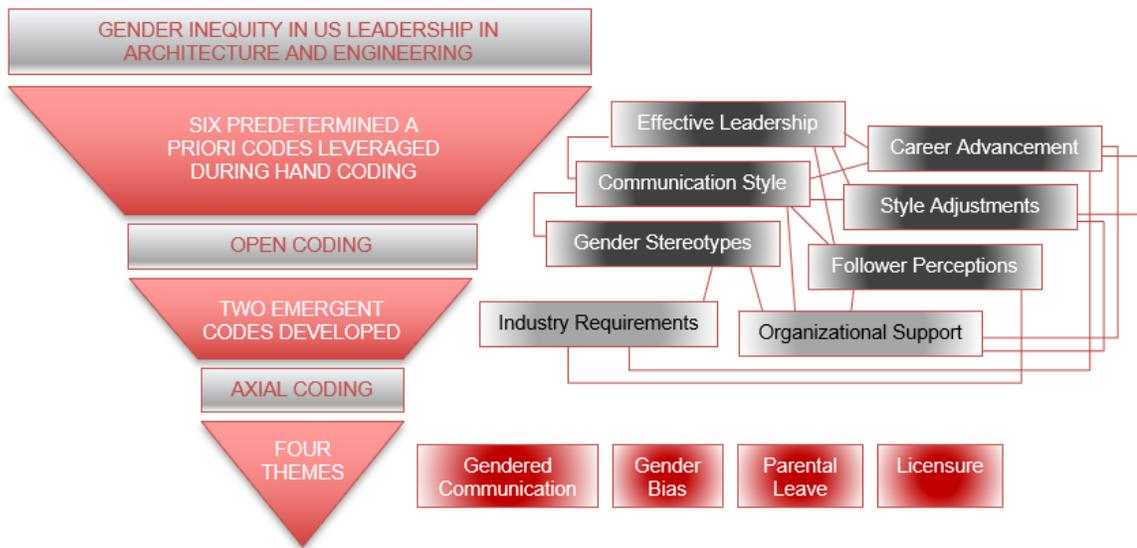
Figure 2: Data organization and analysis coding process. This figure shows procedural
flow for coding and interrelation of codes to produce four themes.

      Barusch et al. (2011) named sampling rationale as the most commonly employed

strategy in their review of qualitative strategies used to enhance rigor. The researcher

worked therefore to ensure prior to, during, and after the study to provide thorough

reasoning for the participants initially approached and in total secured through snowball

sampling. Analyst triangulation and peer debriefing meant the involvement of multiple

sources of data, including notes taken during the interviews and recorded transcripts, as

well as multiple reviewers.

      Eight peer debriefers participated in the review of the study's data, findings, and

recommendations. These eight peers were comprised of members of male dominated

industries outside of architecture and engineering, were doctoral candidates working on

individual research projects, were retired professionals from the communications field, and/or were managers responsible for the promotion of individuals working within their respective teams. Male in addition to female debriefers were sought to include a diverse gender review of findings and recommendations. The audit trail employed was an Excel spreadsheet created at the beginning of the study, which was updated at various decision points and throughout the research project.

Study Sample

The complete sample for this study was obtained by reaching out to an initial seven women known to the researcher. These seven women spanned both industries, different roles within the industries, different year totals of experience, and different locations in the United States. Snowball sampling was then leveraged by asking initial subjects to pass along the consent form to other potential participants personally known to them (see Appendix B).

Snowball sampling was utilized as it provided greater ease in sourcing participants and allowed for a population with additional characteristics to be sourced (Cohen & Arieli, 2011). These subjects then contacted the researcher proactively and directly. Ultimately, the researcher interviewed 19 women spanning the following characteristics (see Table 1). Interviewees were assigned code names by industry type and in order of being interviewed to provide anonymity. These code names are leveraged subsequently to refer to interviewee responses.

Table 1

Coded List of Interviewees for Purpose of Anonymized Reference

Code	Years of Experience	Organization function	Location
Arch01	15	Architecture	Idaho
Eng01	20	Engineering	Idaho
Arch02	25	Construction	Idaho
Eng02	20	Engineering	New York
Eng03	25	Academia	Colorado
Eng04	25	Engineering	California
Arch03	15	Architecture	Idaho
Arch04	20	Architecture	Texas
Arch05	25	Architecture	Oregon
Eng05	20	Engineering	California
Arch06	20	Academia	Idaho
Arch07	25	Architecture	Oregon
Eng06	15	Engineering	Illinois
Eng07	20	Industry Institute	Illinois
Arch08	15	Architecture	Texas
Arch09	30	Architecture	Oregon
Arch10	20	Architecture	Idaho
Eng08	20	Engineering	California
Eng09	30	Engineering	Idaho

Note. Years of experience were rounded to provide additional anonymity.

The researcher interviewed 10 women working in in the architectural field and

nine women in the engineering industry. Participants were performing different roles in

the architecture and engineering industries, such as designer, project manager, educator,

marketing professional, principal, and small business owner. They were working in

different architecture and engineering firms focused in different areas, such as

commercial and residential architecture; and structural and energy engineering.

The firm size also varied dramatically, with interviewees working in firms

ranging in size from five to hundreds of employees. Participants came from strictly local

firms, as well as larger multinational organizations. Some women had reached a senior

leadership position, while others were serving as individual contributors. Some were still

practicing in their trained profession, and some others had since left professional practice

to teach or consult for the industries. Participants spanned the country, living in states that

included California, Colorado, Idaho, Illinois, New York, Oregon, Texas, and

Washington. Finally, some interviewees have children, whereas others do not.

Theme One – Gendered Communication

Few interviewees offered specifics regarding direct gendered communication

feedback, with three participants relaying they had received comments or perceived

reactions specific to a "female" communication style. Eng04, leading an engineering

office in California and reporting to a male supervisor in another part of the country,

commented on a disconnect between her practice of communicating more frequently and

in more detail than her supervisor's preference. This participant also relayed that

colleagues in other offices sometimes commented that it was unnecessary or odd that she

wanted to seek out and attend skill-building programs for networking and business

development, or "soft skills" versus the technical core of their profession. However, she

felt the benefit derived from these seminars, attended on her own time, was beginning to

become more evident. Eng07 was told she was "too loud" in office discussions at an early

point in her career where she was the only woman in the office. She added that she no

longer receives that kind of feedback approximately 15 years later.

Another interviewee, Arch07, referenced emotionality as an aspect of gendered

communication. She reported that while she would never present emotion in a

professional setting, she had earlier considered it appropriate in personal discourse with

trusted colleagues:

> I was more emotional at my previous firm, and that was something that I was… I
>
> don't want to say reprimanded, but that there was a reluctance in terms of

promotion because of a concern that I might not take it well even though it was

something that never would have happened in public.

Later reflection made Arch07 feel having evidenced emotion at all, even privately

between colleagues she considered friends, had been a factor holding her back from

advancement. Arch08 reported on being praised for "using facts, not emotions" in her

communications-related feedback. Arch02 referenced leveraging anger intentionally as a

negotiation tactic in response to whether she had ever changed her natural

communication style to suit a larger goal. She felt it was an effective strategy to

emphasize certain points. Five participants brought up emotion, without specifically

having been asked about it, affirming there are ongoing gender stereotypes in female

employees' own perception related to the expression of emotion in communication, as

Shields (2013) discussed.

To a greater degree than the architects, the engineers noted that they are not

known for effective communication independent of gender. Client interaction is a critical

part of Eng01's role as a small business owner and was challenging to her given her self-

identified skillset. She commented, "I had to learn how to talk to non-technical people. I

found that to be very challenging." This lack of engineers being able to communicate

often was asserted jokingly, but the researcher noted that on average, interviews with

engineers lasted between 30-45 minutes, and those with architects ran approximately 60

minutes or more. Many interviewees noted they were often given the task of client

interface, whether due to being more successful at or being perceived as being more

successful at translating technical jargon for non-technical stakeholders due to being

women.

Discussion of gendered communication varied as to whether it might be holding an individual back versus presenting an opportunity, with the majority of participants discussing communication in fairly neutral terms. While one interviewee felt hampered by emotionality, another used it strategically, which authors Brescoll and Uhlmann (2008) had suggested. Only two interviewees recalled receiving negative feedback specific to gendered communication. In discussing client relationships and business development, all participants saw an opportunity to leverage stereotypical female traits regardless of wanting to fill those types of roles. Weinberg et al. (2015) said gendered communication can be used to secure organizational outcomes.

Theme Two – Gender Bias

Participants overall reported existing gender bias. This included some bias with regard to gendered communication discussed above, as well as bias related to perceived technical ability and bias against mothers but not fathers. The degree to which technical bias was evident, as in it was named outright versus perceived, was relative. Only one participant received direct, unequivocal feedback concerning technical ability bias, while others interpreted this bias was present. One participant confirmed being told she could not handle certain larger projects because they were "too technical" for a woman.

Bias regarding motherhood was perceived by at least three participants, comparing the progress of female versus male colleagues, where both genders were parents. Eng01 reported being questioned as to her plans to have children during one of her job seeking interviews. Eng01 stated, "I remember interviewing for a very large, notable engineering firm who flat out asked me if I was planning on getting pregnant, which I thought was against the law." Though not illegal to ask, it is illegal to base a

hiring decision on pregnancy or intent to become pregnant, and Eng01 further noted that

regardless of her confusion over legality, being asked led to concerns of potential bias

were she to join the firm (U.S. Equal Employment Opportunity Commission, 1978).

Interviewees frequently cited that they experienced discouragement during early

childhood. Interviewees reported being advised to avoid "technical" fields or simply, a

lack of reference to these as a career option (Moosajee, 2017). Arch02, relayed she was

one of the first female graduates in her program at her university. Another interviewee,

Arch07, noted that she might have preferred to be an engineer but ultimately chose to be

an architect, as there were more women entering the latter named professional degree

program:

I think that as bad as the gender parity is for architects, it's much, much worse for

engineers. And it stems from, I would say early on women are not necessarily

encouraged to go into engineering type fields. Math, science…these are not

something that are really…open. I happened to be somebody who was very

interested. From an early age I might have gone into engineering,

but…architecture was sort of a safer place.

Participants at all stages of their career commented on an increase regarding the

number of women graduating in the two fields. Those at later stages spoke to an observed

greater gender equality for entry level candidates compared with their earlier experience.

Those at earlier career points spoke simply to equal numbers upon graduation and

entering the fields as what they knew.

Interviewees commonly reported that whether seeking an official leadership role

or not, it was the size and scope of potential projects that meant the most in terms of

personal and professional satisfaction. Arch06 said it is a way that women are held back, whether this is intentional or not, stating, "…that's one of the subtle ways that women in leadership roles get hindered in their career. They aren't given the same opportunities to manage larger or more complicated projects." Realistically, and in large part depending on the size of one's organization, there were often few levels to aspire to during the course of one's career. For some in smaller companies, there were only three levels, which meant that unless one wanted to leave, one could feasibly expect to remain at a second level for the duration. Arch04 confirmed, "A firm of 10 people is not likely to have six principals." This, therefore, was largely where the responsibility accorded by being awarded projects of a higher stature was most relevant. Or also, the ability to become the "expert" in a particular subgenre. Arch08 became an expert in sustainability to set herself apart.

Discussion of technical capability was where the most blatantly named form of discrimination took place for one interviewee. This participant reported being told she could not handle certain projects as a woman, given she was not technical enough. When asked by the researcher to confirm whether this was perceived or outright and specifically stated, the interviewee reported it was said on more than one occasion. Arch06 stated, "…lots of problems with what I can handle as a woman." Arch06 added:

> Within the firm, it was pretty blatant. They took projects away from me…they
> told me at one point, when there was a large project I was working on, they didn't
> think a woman could handle it. Maybe I should do more interiors…smaller
> projects. That it wasn't their bias, but the contractors in the field would have
> trouble working with me."

When Arch06 was asked by the researcher to comment on whether the culture of her particular state or organization might have influenced these statements, versus the profession as a whole, Arch06 considered the gender biased perception a part of the industry based on her observations of colleagues from across the country. It was also described as part of the larger building industry, which Tether (2016) reported on as surrounding architects and engineers. In another report, Tether (2017) said more than half of women in a recent survey of the architectural industry have experienced bias. While this was the only participant in the sample who named receiving clear and specific gender biased feedback and ultimately left for academia as a result, other interviewees perceived missing out on high stature projects due to gender. Some specified they did not feel bias was intentional yet named observing male colleagues, with objectively less experience and subjectively less skill, receiving the more highly desired projects. Eng08 acknowledged a difference in the types of projects she and a male colleague were tasked with though uncertain as to why, saying, "…my projects tended to be not as challenging in the technical sense." Riegle-Crumb and Humphries (2012) affirmed this bias in a study of math teachers' perceptions of male and female ability.

On the other end of this spectrum, only Arch05 reported experiencing a complete lack of observed bias during her career. This participant felt rewarded for her hard work without asking, earned high profile projects, had children, secured promotions regularly and has reached a senior leadership role within her organization. This participant credited her organization and its culture of prioritizing diversity, among other characteristics, and actively is working to support and continue the trend for all employees at her firm.

Finally, bias was mentioned by Eng08, being a mother, that she did not observe for male colleagues, who were also parents. When explaining her progress earning promotions during her career, Eng08 described her interior reaction to a conversation had with a supervisor, who expressed surprise Eng08 wanted to progress:

> I'm obviously working really hard, and I'm obviously putting in a lot of hours, I don't know why you would assume I'm not aspiring to the next position…this was my impression, it was the bias of being a mom and having more than one child. I had another colleague, who was at the same level, had the same seniority as me, and he had two kids…he got promoted…at least a year and a half to two years before I did.

Arch01 confirmed not being a parent worked in her favor during an economic downturn, stating she "…offered inexpensive labor. Some of my competitors were married with kids." This sentiment aligned with Cunningham-Parmeter's (2013) discussion of greater pay equity found between men and women at earlier career stages, where children were not yet a factor.

Commentary regarding gender bias, particularly as this relates to a woman's technical ability and motherhood, occurred in 17 out of 19 discussions. Perceptions and/or outright naming of this bias varied by interviewee as to the degree of relevance. Yet, it undeniably was a consideration for the majority of interviewees, and the architectural industry was called out by George-Parkin (2018) as part of the #MeToo movement that gained momentum in 2017. Clancy (2018) also named engineering as biased, within the scientific occupations.

Theme Three – Parental Leave

Independent of the central research question, yet aligned with this study's purpose and aim, the largest theme regarding the overall advancement experience to emerge during interviews was the lack of paid parental leave in the United States. This researcher therefore chose to include it in the findings. Participants from the architectural and engineering fields were selected due to having the lowest percentage of women in leadership, so this repeated response was highly relevant to this population. The lack of leave in the architectural and engineering fields was named a common industry practice. In response to the open-ended, secondary question, which gave the interviewee the opportunity to expand on anything the researcher did not directly ask, Arch04 explained that there are fewer women in leadership due to an absence of maternity leave (see Appendix A). "It is incredibly rare to offer a paid maternity leave policy." Tether (2017) discussed this as well. In a firm where gender equity statistics are particularly compelling, with an estimated 50% of female employees, 40% of female shareholders, and one third of female principals, Arch05 brought up parental leave as one of her firm's competitive advantages. "Obviously there's a payoff for the individual, but the payoff for the firm is that you support your most creative people, so that when they come back to work, they're ready to be back at work."

The United States does not provide parameters for parental leave beyond the unpaid 12 weeks that may be used for this purpose through the Family Medical Leave Act (FMLA). FMLA was enacted as recently as 1993, meaning two participants began their careers at a time unable to take advantage even of FMLA. Five participants began

during the introduction period. Some participants work within states that have enacted

subsequent legislation to provide a percentage of pay.

FMLA eligibility requirements are not always clear cut, so some employees are

unable to leverage the unpaid solution currently, which Magill (2014) affirmed, writing

"…discrimination against women who seek FMLA maternity leave continues to exist in

the workplace alongside a stigma against paternity leave." Most relevant, given it is

unpaid, it is an incomplete solution for a single parent or parents that rely on both

incomes. Also, employees of businesses with fewer than 50 employees are not afforded

FMLA protections (U.S. Department of Labor, 2012). States including Oregon, have

enacted legislation that changes this equation, lowering the bar to 25 employees and

providing more time though still unpaid. A few states, California being the first, have

policies that provide partial pay during leave that are anticipated to help keep women in

the workforce (Lerman, 2017).

Parental leave is therefore still largely left to individual organizations as to what,

if any, paid benefit they may offer in this regard and to whom they may offer it. Eighteen

out of 19 employees reported personally facing or knowledge of female colleagues facing

a significant decision with regard to their career and starting a family given participants'

organizations on the whole did not offer parental leave. Arch04 stated:

> I have several friends, and they left…I took this time off, and I have the child, but
>
> now how am I supposed to pay for that. You have to save up your vacation, and
>
> you have to take unpaid leave, which is often prohibitive.

Eng08 reported, "I did have one past colleague, who left…for three or four years

to raise kids, and then came back. A big part of her difficulty reentering the profession

was related to her task assignments…they were less engaging, less interesting." In fact,

only Arch05 noted her company proactively decided to provide paid leave for both

parents and that it was established in recent years as a result of an effort she had helped

champion:

> We think we are one of the first architecture firms to adopt a policy and pay
>
> people. We obviously fall under FMLA, so we automatically give people the 12
>
> weeks of unpaid time…but we had a young woman getting ready to become a
>
> single mother, and we're having all of these conversations, people are trying to
>
> donate PTO…why don't we just pay her maternity leave? We looked at how
>
> many people over the last five years would have triggered an event…it came out
>
> to be not a huge amount of money the firm could take on and become self-
>
> insured. We netted out no additional cost.

Arch05 further noted that the inception of parental leave at her organization had

begun to prompt and encourage at least four other nearby firms she knew of to offer the

benefit.

While the parental leave theme was unexpected as related to the study's question,

it was the most prevalent and pertinent to the larger promotion experience topic. All

interviewees noted either personally or based on observation that women are challenged

by the decision to have a family. Certainly, female workers in other industries also may

be faced with the choice, with existing American policy regarding parental leave, but

architects and engineers face the added issue of licensure when this typically occurs. This

is explored next.

Theme Four – Licensure

Licensure in the architectural and engineering fields amplifies the issue stemming

from these industries not having paid maternity leave. United States law requires that

both architects and engineers earn a professional license. An architect officially cannot

call oneself an architect without a license (National Council of Architectural Registration

Boards, 2018). Of relevance to the findings in this study, recent data showed that only

18% of architectural licenses are held by women (Stratigakos, 2016). While an architect

cannot call oneself such without the license, an unlicensed engineer is technically still an

engineer though one without the ability to sign off on work.

Speaking to the timing issue, Arch04 said:

Due to the timeline of when many women and men choose to start families, there

is a time lag from graduation…to becoming a licensed architect. Unlike law, for

example, you graduate, and people take the bar immediately after graduation, and

you're an attorney.

The legal field's different timeline was a reference point for a few participants.

This due to all fields having licensing/certification requirements but lawyers benefiting

from a tighter timeline after graduation, which has been made even tighter in recent

years, according to Olson (2016).

Interviewees reported an expectation in many cases by their organizations to

attain their professional license in order to progress. It is a mandate for some. Arch05

outlined, "In our firm, you cannot be in a title position without a license…Years ago, we

did not have the policy position… It's one of those things, you have to find a way to do

it." Arch07 added it is "actually a requirement for a promotion to the senior associate

level, which would be a level below the principal level."

When not an actual requirement, licensure was still a perceived necessary step to

advance. According to Arch10, "I held off for quite a long time from getting my license

because I didn't see it would change anything I did day to day…My previous company, I

received a lot of pressure." While obtaining the license does not automatically lead to

higher pay or change the nature of the individual's work, the perception of clients

regarding access to licensed architects, as well as the organization's ability to bill its

architects out at a higher rate contributed to the advancement requirement. Arch01

commented, "For my entire career, there hasn't been much incentive to become licensed

because a lot of times there was no pay increase associated with it."

The engineering industry is similar to the architectural field in the official

constraint of possessing a license to "sign" or "stamp" drawings as a measure of

certifiable knowledge and professional accountability. However, a licensed architect is

not necessarily performing a different or more official role. Architectural interviewees

commonly reported that the principals in their firms were still the only ones likely to sign

off on drawings regardless of an employee's licensure status. Professional engineers more

commonly stamp their projects after attaining their license. According to Eng06, "In our

company, it's almost always required that you're licensed to continue on the promotion

track…you're responsible for everything going on, on your project, so it makes sense that

person would have the required license to be able to stamp and seal their documents."

Eng05 tied the perceived necessity directly to being a woman:

> Being licensed, I felt was a nonnegotiable if I wanted to stay in engineering as a
>
> female… Men don't have that same obligation. In fact, I've worked for many men
>
> in my career…there's a lot of men in my current firm who lead teams and lead
>
> offices, who aren't licensed.

Interviewees reported on the necessity of attaining one's license to progress

and/or be taken "seriously" externally as well. Some participants relayed a benefit

regarding the perception of other workers on a project. For example, a general contractor

for a building was said to be more likely to "respect" the expertise of a female architect

or engineer if she has a license versus perceptions of respect naturally allocated to male

colleagues regardless of licensure status. This directly echoed study results determined by

Meister et al. (2015). Eng05 said:

> Working in construction…you're trying to establish a relationship on a project
>
> team that includes architects, structural engineers, civil engineers, and contractors.
>
> I felt like the PE gave me a lot of credibility quickly, where because I was a
>
> young female…I needed that to tell people without me opening my mouth that I
>
> deserved to be there.

Participants also discussed the difficulty involved in attaining a professional

license. The path to earning a degree and license varies slightly by profession and within

profession. On average, however, individuals begin to seek these approximately six years

after graduating from a four-year college. This therefore places most individuals in their

late twenties and early thirties.

Licenses require many rounds of testing, intensive study and significant cost all

while employed full time. Regarding the timing factor, Eng01 added:

It's hard to take the exam at that time if you're trying to get pregnant. I think it's

hard to take the exam if you have a kid. I have one my friend…It took her two

years to take the exam because…she purposely did it around her babysitting

daycare. And I think that's a legitimate problem. If you don't pass, or you don't

take your Structural Engineer license, your career's limited.

The cost overlay of having a child and getting a license in addition to time

requirements affects licensure. According to Arch07:

Most of the time what happens is architecture is not a very lucrative profession…

The pay is so low for young architects if you don't have your license, you can't

make much money. It doesn't make much sense to come back because the cost of

childcare is so high. We do lose a ton of women in the childrearing years. They

just go do something else.

Arch05 added, "That's why this paid family leave policy is so important to us and

paying for the license." Considering the lack of parental leave combined with becoming

licensed, the reason for women leaving these fields around the ten-year mark becomes

clearer.

Analysis and Synthesis of Findings

This researcher was not surprised to find little direct information in participant

responses regarding the central research question. Gendered communication was

perceived as possibly preventative to advancement for some, while others indicated they

considered it neutral or a positive. However, where gendered communication feedback

was negatively referenced, this indicated there is a persisting bias. The researcher was

surprised to find, outside of communication specifically, the degree of gender bias in this

study's results in the present day given the litigious avenues available to Americans and

various gender equality movements in recent decades and years. There is support as to

the existence of continuing gender bias, whether intentional or unconscious, according to

literature (Barker, 1991; Bielby, 2000; Cislak et al., 2018; Cook et al., 2018; Donald,

2016; and Güngör & Biernat, 2009). There is disagreement on whether it should or

should not be researched, whether it is or is not there, and if it is still present, what if

anything should be done about it. Authors including Guy (2014) and Hoske (2017),

varyingly placed responsibility on individuals, corporations, and the government. For

some interviewees to report feeling they had no recourse but to leave their organization to

progress and/or leave their profession entirely due to gender inequities is discouraging

and unfamiliar to the researcher.

   None of the interviewees reported an unwillingness or hesitance to discuss

advancement opportunity with management or any issue with the manner in which they

communicated promotion intentions. All participants reported proactively seeking some

kind of development opportunity to improve personally and professionally, and these

often included a focus on "soft skills" - communication specifically in addition to

ongoing technical development. Literature affirmed professional development is an

option for women to proactively and intentionally set themselves apart and offer greater

value (Kaiser & Wallace, 2016).

   While all participants confirmed changing their natural communication style to

suit a situation or serve a goal, this question was consistently interpreted and answered as

providing an opportunity. All nineteen interviewees discussed in neutral to positive terms

that they do adapt to suit context or situation. They did not report feeling inauthentic,

forced to change, or suffering from identity threat as a result, as Hippel et al. (2011) discussed. No one reported feeling they had to adopt a "male" communication style to be respected or heard. Eng07 offered a time when she spoke with agentic traits she considered her own. Using directness and determination in answering a supervisor's publicly posed question as to whether she was capable of handling a project, was later named by the supervisor as a reason she earned his respect, which Zheng et al. (2018) supported. It was interesting to note participants consistently voiced style flexibility as an obvious choice though Hippel et al. (2011), Kolehmainen et al. (2014), Pfafman and McEwan (2014), and Tench et al. (2017) gave a mixed recommendation as to this producing poor results or being an effective strategy.

Stereotypical gendered communication provided also an unexpected, opportunistic versus prohibitive avenue for interviewees in these technical fields. Business development and/or client management were named by 16 interviewees as a stepping stone to senior levels in their organizations. They voiced it as an advancement necessity alongside the perception that women are better at building relationships and navigating tricky client interactions, so they felt often tapped to handle these types of discussions. Research supports the notion that technical environments and their requirements can sometimes obfuscate communal skills that also are needed and are just as valuable (Eldridge et al., 2007). The researcher did anticipate participants might have been held back by the perception of female communication as indirect, emotional, or lacking confidence. While within an organization this may be somewhat so through the discussion of emotionality, this study's results indicate there is an opportunity externally that will translate back to an organization's bottom line.

The history of family and workplace dynamics in the United States made it unsurprising that decisions to begin a family affected the career paths of interviewees. However, it was surprising to understand fully parental leave is not a protected benefit in the United States and is distinctly absent in the architectural and engineering industries, according to interviewees, which Fouad and Singh (2011) affirmed. The researcher's professional experience in communications has been entirely otherwise, while literature on this subject consistently supported participant experience. Authors including Cunningham-Parmeter (2013) and Maxwell (2012) commonly referenced the ongoing nature of caregiver responsibilities falling to women and the seeming inability of men to share more of this role given ongoing societal challenges in the workplace and in courts. It was not the researcher's intention to explore this topic, but as it came up in one of the earliest interviews, it became a touchpoint in all subsequent discussions and was unchallenged by any participant as a relevant barrier in both fields.

Further regarding the researcher's finding in this study, Pesonen (2015) called the United States "an extreme outlier among industrialized nations," adding America is "one of four nations in the world that does not have a law mandating some form of paid maternity leave." Finland offers up to three years of paid leave, and Ingraham (2018) noted that having children is not purely personal given children contribute to future economies that support everyone. Countries such as Iceland, which consistently rank highest on the Global Gender Gap Index, go beyond paid maternity leave to offer also paternity leave. Analysis of this latter point further names Iceland's egalitarian approach to parental leave as directly supportive of its consistently high global equality ranking and ongoing efforts to resolve remaining gender inequities, which support's the

researcher's inclusion of this theme as highly relevant. Other countries, including

Finland, Norway, and Sweden, which consistently perform highest on global equity

measures, also offer generous leave policies (Marinósdóttir & Erlingsdóttir, 2017;

Weller, 2016; World Economic Forum, 2017).

Licensure as a component of career advancement for these professions was not

unknown to the researcher. The researcher was anecdotally aware, and the National

Council of Architectural Registration Boards (2018) and National Society for

Professional Engineers (2018) confirmed the requirement and timeline for licensure.

However, the cost and burden of attaining one's professional license, alongside the

average point at which it occurs, combined with the lack of parental leave made the high

degree of gendered leadership level inequity more easily understood. It was also

interesting to note in research results that while licensure is commonly expected by

organizations, it does not always lead to immediate or obvious benefit for the individual,

according to participants.

Some organizations that particularly prize licensure help employees with funding

and flexibility in order to incentivize taking the tests. While this was not commonly

reported by all interviewees, it was yet another competitive advantage named by Arch05.

If one were to be in the process of having a child, or have children already, the ability to

effectively earn a license is reduced though not impossible. If one were to decide to have

children, taking the standard unpaid leave, it is understandable that it is currently

financially unattractive to return.

Summary

The researcher sought, with this study, to uncover common meaning in the promotion process for women in the male-dominated architecture and engineering fields. The study also included an examination of whether gendered communication has affected interviewees' experience in reaching higher leadership levels in participants' perceptions. Findings indicated that gendered communication is relevant in the workplace but has not been named by supervisors directly as positively or negatively impactful on advancement. However, with the inclusion of business development as advancement criteria for most firms, and with women being tasked more and more with maintaining client relations, there is opportunity to leverage gendered communication now and in future. The additional three themes – gender bias, parental leave, and licensure – fell outside of the central research question. The researcher chose to include these themes given their relevance to the overall issue of low gender equity in leadership for architecture and engineering firms.

By interviewing 19 women, working within the architectural and/or engineering industries, themes pertaining to gendered communication, gender bias, parental leave, and licensure emerged. Responses indicated that the relevant themes were at times both supportive of advancement and preventive to reaching higher levels. Uncovering shared meaning in the experience of women seeking promotion contributes to an explanation for an aspect of the overall gender parity problem in United States industry.

Research revealed both challenges and opportunities regarding gendered communication and gender bias, as well as issues relating to parental leave, professional licensure requirements and company expectations. Regardless of industry or role, results

do indicate the potentially positive trend for participants who were interested in becoming

leaders in their organizations, as this relates to gendered communication and aspects of

the communal style, which Schock et al. (2018) supported. Success in business

development, bringing in clients, building relationships, and securing repeat business,

was commonly named as a spoken and unspoken precursor to reaching higher leadership

levels. If more women are being tapped to perform this role, and if a legitimate strength

than can be intentionally developed, there is an opportunity for it to be leveraged for the

individual's and organization's benefit.

While some results may be most relevant or specific to architects and engineers,

results prompted related areas of inquiry in other fields. Results were applicable to the

purpose and aim of the study, and proposed solutions that follow may have an impact

beyond architecture and engineering.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

Introduction

United States Department of Labor (2015) data confirms that women of working age now outnumber and have attained higher levels of education than men, making the contributions of this population segment more valuable than ever before. The United States' Global Gender Gap Index of 49 out of 144 is a low score for a high-income country and an industrialized nation. This rating underlines the ongoing disparity in the United States regarding equal pay and representation in senior levels of leadership (World Economic Forum, 2017). Little more than five percent of leadership roles in architecture and engineering are filled by women, which this study worked first to understand to then recommend evidence-based solutions. The researcher's aim was to uncover shared meaning in the experience of women seeking promotion and to contribute to an explanation for an aspect of the gender parity problem. In addition, the researcher sought to inform the practice and provide a foundation for feasible solutions that will contribute to resolving leadership gender inequity in architecture and engineering, with practical application beyond these two fields.

This research project included exploration of whether a female communication style affects the advancement experience of American female engineers and architects through 19 qualitative interviews. Two proposed solutions follow to support the promotion experience of women and contribute to improving low levels of women in leadership in the architectural and engineering fields. The first solution is related to gendered communication and gender bias, while the second is applicable to the promotion experience as a whole. As anticipated, recommendations also are pertinent to

other industries in the United States. With some cues and supporting evidence taken from

the productive efforts of other countries, recommendations also are applicable beyond the

United States to the world as a whole.

Purpose of the Study

The purpose of this phenomenological study was to uncover common meaning in

the promotion process for women in the male-dominated architecture and engineering

fields. The researcher examined also whether gendered communication has affected

interviewees' experiences in reaching higher leadership levels in these two fields. This

purpose was accomplished by interviewing 19 women, who are working within the male-

dominated architectural and engineering industries. Research results prompted related

areas of inquiry in other fields, and proposed solutions may have an impact beyond the

two types of firms.

Aim of the Study

The aim of this study was for the researcher to uncover shared meaning in the

experience of women seeking promotion and to contribute to an explanation for an aspect

of the gender parity problem. It was anticipated that this could help inform the practice,

leading to new policies or processes that pertain to diversity education and championship,

and greater workplace flexibility and improved resource allocation. Solutions should help

reduce gender bias, improve employee engagement, advance all employee contributions,

and deliver stronger business outcomes.

Proposed Solutions

Two proposed solutions follow to help address the four major themes from the research findings, which were reinforced and/or uncovered through this study, including impacts of gendered communication at early and late career points, persistent gender bias, inconsistent parental leave policies, and the timing of licensure.

The first solution focuses on diversity and inclusion to take advantage of diversity as a strength. This solution recognizes there is value in all aspects of gendered communications and should help reduce gender bias in architecture and engineering organizations. It is recommended that firms create a diversity and inclusion council comprised of men and women at their firm that includes members from all levels and multiple business functions. This council should educate itself and team members on the benefits of a diverse workforce to strengthen or positively transform corporate culture. Council members should seek related resources and training, become the experts, and champion this knowledge within their organization. Council members further should create partnerships with industry organizations and local schools to support and promote the understanding of the benefits of diverse strengths at all stages. Diverse representation of business function on the council would drive a positive impact for hiring and retention. This solution would have impact to diversity factors beyond gender. Seeing the value in diversity and driving inclusion would impact the individuals within the organization, as well as the organization's business outcomes. Ford (2001), HeForShe (2018), Nobel (2011), and Vogt (2011) confirmed the value of a diversity and inclusion focused initiative, and Hunt et al. (2016) outlined the business case for diversity leading to better business outcomes.

A second solution is for architecture and engineering firms to create paid parental leave policies and flexible workplace options that apply equally to both genders. This is supported by authors Galinsky, Sakai, and Wigton (2011), Gunnupuri (2018), and Masters (2017). The researcher identified at least one architectural firm in the course of this study that implemented a paid parental leave policy. Examining this firm in greater detail and looking for other like firms that have implemented policies should help architectural and engineering companies understand the cost-benefits. Examination should encourage firms to create similar policies that maintain diversity in their organizations by not losing female employees when decisions to have children are on average made. Benefit data exists also for companies in other industries, American states that have made minor strides with partial paid policies, and other countries in the world (Bloomberg, 2019; Muse, 2011). While this second recommendation is not new, this study's results, as well as success measures from organizations that have achieved a return on investment and other countries faring far better on global equity measures, support it as a solution that has not yet been realized in the architecture and engineering fields or in the United States as a whole.

Support for the Solutions

Greenspan (2000) said that diversity and inclusion contributes positively to organizational culture and business outcomes. Education has been demonstrated to be a key factor in helping drive gender parity, according to Karam (2013). So, it follows that to the extent an organization educates itself and its members, improved diversity awareness will be a positive driver for improved gender equity within the firm, help reduce bias, and showcase the strengths of varying communication styles. Diversity and

inclusion programming should not be conducted as a preventative measure or reaction to

legal issues. Rather, such efforts must be fully informed, championed at all levels, and

part of larger corporate cultural goals to be effective.

The creation of a council would mean that champions exist to sustainably promote

and perpetuate understanding at all levels for all career stages. It would make for ongoing

engagement, as employees take an active role in creating and maintaining an inclusive

culture. It is critical that the diversity council be diverse. All staff levels need to be

involved, and men need to be involved. Ensuring HR involvement positively affects

hiring practices, according to the Forbes Human Resources Council (2018). A council

would also help eliminate long held stereotypes about personality characteristics mapping

to career types by basing decisions on data versus potentially inaccurate or outdated

beliefs, as Pringle, Dubose, and Yankey (2010) discussed. Architectural and engineering

roles demonstrate a bias toward women as children and beyond. Therefore, seeking out

opportunities to collaborate with local schools and universities should net positive

outcomes. It also should leverage exercises that help "show" rather than "tell" how

diversity can be leveraged to improve outcomes, as Dunphy (2004) outlined.

The Council of Economic Advisers (2014) concluded that the lack of paid leave is

a primary reason why "women's participation in the workforce has stalled" and "now

lags behind many other developed nations." The United States is one of a few countries

in the world without paid parental leave, while many countries such as Iceland achieve

excellent gender equity scores, as well as report specifically on the success of their leave

programs. Stroman, Woods, Fitzgerald, Unnikrishnan, and Bird (2017) support this

recommendation. The authors noted in their study that paid leave produces results for

companies, including improved retention, reduced turnover costs, and increased

leadership diversity. Some private American organizations, such as Google and Netflix,

have implemented generous leave policies in recent years and are reporting positive

results. Also, the first state to do so, California implemented a partially paid leave

program and is seeing improvement in employee retention and loyalty as well.

Discussion from Appelbaum and Milkman (2011) and Miller (2014) supports the

researcher's assertions as well.

Factors and Stakeholders Related to the Solutions

Numerous stakeholders exist, spanning both solutions, within the two industries

and each company. Among decisionmakers, these include representation from both

genders, all leadership levels, multiple business lines and role functions, as well as other

diversity dimensions. Related industry and diversity organizations are relevant

stakeholders. Educators and federal and state government employees are involved.

Significant factors related to both solutions include real and perceived costs, as well as

time required to design, approve, implement, maintain, and review the programs'

effectiveness.

- **Policies Influenced/Influencing the Proposed Solutions –** The researcher

    recommends diversity and leave policies be implemented at the national level in

    order to have the strongest impact. There is existing policy relating to both

    solutions. Yet, some researchers disagree as to whether policies that relate to

    societal change should begin with a company or at a higher level such as the

    government. Guthrie and Roth (1999) demonstrated that institutional support for

    policies that promote equity is conducive to organizations following suit.

However, organizations certainly can contribute to implementation and promotion

as well at their own individual level and have more control over aligning this with

vision and goals. Those companies which are already doing so, are achieving

success measures. According to Dishman (2016), a tech company called

ZestFinance has realized a 25 percent increase in its number of minority

employees, as well as an even gender split in its C-suite following implementation

of a parental leave policy. When organizations hold themselves and/or are held

accountable, real change occurs.

- **Potential Barriers and Obstacles to Proposed Solutions –** Designing a diversity

  council for its own sake without real support or funding will fail. Creating a

  council as a reactionary measure versus a clearly articulated benefit for the

  company will hamper its effectiveness, according to Ford (2001) and Nobel

  (2011). Regarding parental leave, a recent survey shows the majority of

  Americans support paid family leave, while disagreeing on whether the

  government or employer should be responsible (Menasce Horowitz, Parker, Graf,

  & Livingston, 2017). And in the case of a small business, placing the burden on

  the employer could be cost prohibitive. It is therefore necessary the proposed

  solution have applicability to all business sizes, so small size does not negatively

  affect implementation reasonability. For example, the National Partnership for

  Women and Families (2018) is one of many organizations promoting a solution

  that would provide partial pay and apply to businesses of all sizes, assisting small

  businesses with what can be a significant cost barrier. Though diversity in

  leadership has been demonstrated to produce positive results, and some

organizations are reporting positive outcomes after having implemented parental

leave, one would still expect to see companies and possibly team members

resisting change that is not adequately explained and/or perceived as costly.

- **Financial/Budget Issues Related to Proposed Solutions –** There are undeniably

   direct and indirect costs associated with forming a new internal group and

   creating new policies. In the case of the diversity council, there is a likely cost

   related to training and leveraging resources. There is also the time of the team

   members involved, as a finite resource with associated costs. Regardless, the

   benefits of a diverse workplace far outweigh these costs (Jenkins, 2018). Parental

   leave and flexible workplace policies have hard costs as well. Yet as has been

   demonstrated by organizations and a few states that have done so, there are

   mediating factors that produce a positive or net neutral effect, as existing research

   has affirmed (Jenkins, 2018; Ruhm, 2017; Zarya, 2018).

- **Legal Issues Related to Proposed Solutions –** Diversity and parental leave

   efforts inherently are legal matters given these are recommended as changes

   and/or enhancements to any existing organizational policy. In addition, litigation

   may arise from new programs, with related cases potentially brought by

   employees against employers. A company's efforts to improve diversity can have

   an unintended, negative effect. With greater attention drawn to gender issues,

   individuals may choose to protect themselves at cost to positive change, which

   authors such as Tan and Porzecanski (2018) and Wakabayashi (2018) have

   explored. A policy newly implemented cannot be retroactively applied, as was a

   challenge when one large corporation enhanced its existing parental leave policy

in 2016 (Roberts, 2016). However, given related legal issues already occur to some degree based on the current situation, a net neutral effect is possible, and greater damage may occur when inaction is allowed to perpetuate the status quo and discrimination prevails. Campbell (2018) explored this in a recent case against Nike.

- **Other Issues or Stakeholders Related to Proposed Solutions –** Diversity efforts have been underway nationally for decades, with varying degrees of success at varying speeds. Yet this concept and the parental leave solution undeniably affect the entire country, all organizations, and all individuals. Related policy ideally should be implemented at the national level, according to some research (Bulger, 2018; National Diversity Council, 2018).

Implementation of the Proposed Solutions

Organizations should look first to like organizations or even organizations in other industries, which have implemented diversity and/or parental leave programs to understand best practices and fulfill the most successful implementation of these solutions. Regardless of where diversity and leave programs evolve or stagnate in American government, organizational leaders at architectural and engineering firms should consider the value proposition and competitive advantages and take steps internally. Companies should take a hard look at all costs associated with potential lawsuits, missed revenue opportunity, current benefits, replacing employees, and other less visible but still viable determinants such as loyalty and engagement. Considering the reported successes of organizations that have thoughtfully created diversity councils and proactively implemented parental leave policies, individual leaders can take charge of

their own corporate culture and implement measures that strengthen this for all team

members to ultimately drive stronger business outcomes.

Factors and Stakeholders Related to the Implementation of the Solutions

Previously named factors and stakeholders related to the solution are also relevant

to its implementation. These again include architecture and engineering organizations and

organizations' team members. Factors related to implementation include administrative

and maintenance costs, such as time required to implement, run, monitor, and review

effectiveness ongoing.

- **Leader's Role in Implementing Proposed Solutions –** At the organizational

  level, leaders have the most critical role in implementing diversity and parental

  leave solutions. Once these programs have been researched, designed, and

  approved, the leader must be seen as a champion of, involved in, and highly

  supportive of any related measures. They will elsewise fail and/or exist without

  being utilized.

- **Building Support for The Proposed Solutions –** It is unlikely that team

  members would not objectively support the solutions, but they must understand

  the benefit and be engaged for true implementation to occur. Employees that feel

  diversity and inclusion is a zero-sum game need to be included on the council to

  embrace it as a solution. Authors Kuchynka et al. (2018) and Pedrelli (2014)

  discussed these assertions. Team members also may need to be encouraged to

  utilize the solutions, particularly in the case of parental leave. Fathers might need

  additional encouragement given they have not traditionally had access to such in

  the United States. Fathers may feel the ongoing caregiver stigma. Employees who

must provide additional support to those who are out on parental leave would also

need a clear understanding of how this will impact them, what resources they will

have, and how the opportunity might actually benefit them in terms of leading to a

promotion. Cunningham-Parmeter (2013), Dishman (2016), and Zalis (2018) have

examined the aforementioned aspects of consensus building.

- **Global / External Implications for the Organization** – Given the rarity of

   parental leave in the American architectural and engineering workforce, it is

   anticipated other companies would see an organization having implemented leave

   as a competitive advantage and consider following suit. This notion was

   proactively affirmed by Arch05 whereby local architecture firms had begun to

   implement similar solutions after hers did. Globally, the United States is behind

   nearly every other country, so it is less a matter of anticipating implications and

   more a matter of implementation so that the United States may catch up with the

   world's leading countries.

Evaluation and Timeline for Implementation and Assessment

Diversity and inclusion in the workplace is important now, and it matters even

more to the future workforce, supported by research (Parikh, 2018). Developing an

effective and a sustainable diversity council takes time and is a long-term strategy

(SHRM, 2019). The same holds true for a researched and vetted parental leave policy,

with the researcher estimating conservatively that both solutions would take a full year to

research, design, and implement. Assessment would need to be performed ongoing, with

quarterly analysis recommended for the first year after implementation before moving to

annual assessment in year two.

Implications

Practical Implications

Diversity and inclusion programming is recommended for implementation to help

reduce bias, as well as more clearly identify independent of gender where team member

strengths exist, can be best utilized, and further developed. Should such a

recommendation be leveraged by architectural and engineering organizations, it will help

ensure they are recognizing and capitalizing on the capabilities of their employees

throughout the course of their careers, as well as embrace all communication styles. The

council would be instrumental in a variety of tasks from hiring to professional

development. Ranking at 49 out of 144 on the latest index, the United States has ample

room for improvement, and with only 5.3 percent of women in leadership, the

architecture and engineering firms notably do as well. With the United States well behind

other less economically developed countries, such as Rwanda and Nicaragua, it is not

wealth but rather a deeply transformational shift in culture that is required. Architectural

and engineering firms should consider it an imperative to improve leadership diversity.

Becoming a licensed architect or engineer coincides with the average point

women begin to have children. The National Center for Health Statistics (2017) gives the

mean age to have a first child as 26.6. The National Council of Architectural

Registrations Boards (2017) reported the average age to begin pursuing licensing is 25,

and it takes an average 4.2 years to complete (National Council of Architectural

Registration Boards, 2018). Attaining one's engineering license varies by type and state,

but the Professional Engineering license requires approximately four years of working

experience before one is able to begin (National Society for Professional Engineers,

2018). Given the preceding data, a paid parental leave offering would necessarily help

with the pursuit of a professional license for both architects and engineers. Further,

offering resources as appropriate by organizational size in order to help employees

achieve licensure further assists with this finding, reducing the cost burden on the

employee, who then primarily need worry about managing time. One would expect to see

more employees become licensed and a more equal breakout by gender in licensure.

Implications for Future Research

Future researchers should consider applying the gendered communications

question to other industries. In particular, researchers should seek an industry that has

better parental leave programs in place or a business size that on average provides

parental leave. This would reduce the lack of leave as a primary reason for low equity

numbers and allow the subsequent study to focus more narrowly on the communications

question. In the same vein, industries that do not have the licensure step and/or do not

require it at a later point in the professional timeline would also allow for greater

examination of the role of gendered communication. Studies should seek larger samples

and include men in the discussion for additional perspective. There is also opportunity for

case studies to be performed on any architecture and/or engineering firms that apply

either of this study's recommendations or have recently done so, as in the case with

Arch05's firm. A quantitative study that reviews salary versus advancement would be

valuable. Researchers should consider a project that focuses on the manager or

supervisor's experience regarding gendered communication, as well as a gendered review

of supervisor experience as to consideration of employees for advancement. Finally, there

is opportunity to conduct this same research in another country that has greater gender

equity.

Implications for Leadership Theory and Practice

As earlier discussed, diversity in leadership provides benefits for the individual

employee, team, organization, country, and economy. Both the agentic and communal

communications styles offer strengths and benefits, according to existing studies

(Eldridge et al., 2007; Schock et al., 2018). With study participants indicating there is

inherent opportunity in leveraging communal communications traits, this style bears

further examination as to its benefits and building organizational, cultural support as to its

strengths. The focus on communications was due to the researcher's specific business

function, as a communications professional. Thusly, many points of alignment

contributed to this topic being chosen, as well as the study's design. However, regardless

of personal identification with the target population and subject matter, the overriding

reason for pursuing this course of study is a fascination with human nature. The reality is

that human nature on the global scale seems to systematically discriminate against a

sizable portion of its population (World Economic Forum, 2017). This discrimination is

not new. It is not limited to the population being studied. It was the researcher's goal to

explore the gender gap in leadership, focusing on architectural and engineering firms due

to having the lowest parity percentage point, and contribute to leadership theory and

practice. It is a time when all doors appear to be but are not truly open, and/or are not

open for everyone. This is evidenced by the inability still of an American woman to be

elected to the highest office, as well as the current torrent of sexual harassment claims.

While numbers have improved over the years and decades, humans have made a great deal of progress but are still in the middle of a long journey.

This program began with Lowney's (2003) review of the Jesuits as a 450-year-old, successful organization. The Jesuits argued that everyone is a leader all the time, with which the researcher agrees. Though the Jesuits also did not allow women into their ranks until very recently, and only allow women in support positions currently, the point is salient. All people are leading at every moment. They are leading badly, and they are leading well. They are leading with different strengths and thus have the opportunity to contribute to a diverse whole. As the definition of leadership continues to evolve, so too must the definition of who is recognized as a leader, and capable of being an effective one, by businesses and organizations. The perception of effective communication and where this overlaps with views of effective leadership also must shift.

Summary of the Study

The World Economic Forum (2017) estimates that gender parity could add $1,750 billion to the United States' Gross Domestic Product (GDP), and the "world as a whole could increase global GDP by US$5.3 trillion by 2025." Gender inequity therefore affects everyone, and addressing it is "not just the right thing, but the smart thing" (Fairchild, 2014). It is not a zero-sum game whereby the improvement in situation for one gender negatively affects another (Kuchynka et al., 2018). Full participation of women in the United States workforce would contribute to economic growth, and improved gender diversity in leadership would have a positive effect at the organizational level (Bloomberg, 2019). Greater diversity has also been shown to affect the individual employee, helping to improve engagement and attrition (Hills, 2014). This qualitative

study, which examined interpersonal, gendered communication differences in the

architectural and engineering fields, its results and recommended solutions contributes to

existing literature, helps inform the practice, and adds to the ongoing effort to solve an

aspect of the gender gap.

Study results point toward a program that expands leadership and professional

development opportunity for current leaders in the position to promote upcoming

members of the workforce and improve gender diversity. Finally, it affirms that aspects

of American society are failing all members, its children and adults, and that by

improving the way both genders are engaged with and educated at increasingly younger

ages, the United States may strengthen its leadership bench, improve gender equity, and

achieve vastly better results on future Global Gender Gap Index reports. The

recommended diversity and inclusion and parental leave programs in architectural and

engineering firms would help a portion of United States business achieve a greater state

of parity with other American industries and peer nations. It would positively impact

organizational retention and engagement, and it would certainly benefit individuals to

help bring about gender equity in the United States and close the gender gap.

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Appendix A

Interview Protocol

Interview overview
Gendered communication as relates to leadership advancement and follower
perceptions of leadership ability (the proposed sample includes women at architectural
and engineering firms, with 15 to 30 years of experience in their careers).

Time of interview:
Date:
Place:
Interviewer:
Interviewee:
Position of interviewee:
Years with current company:
Years in career:
Promotion attempts/successes:

Project description
Thank you for your willingness to participate in this research study on gendered
communication as relates to leadership advancement. My goal is to uncover themes
across the interviews I am holding to determine any commonalities in participant
experience. Your comments will be kept confidential and remain anonymous. You may
refrain from answering any question or end participation at any point. I anticipate this
interview will take approximately 60 minutes, and you are free to take a break
whenever needed. Please let me know if you have any concerns or wish to clarify a
question asked, as we proceed. Please note this interview will be recorded for purpose
of accurate recall unless there are objections. We will begin with the consent form.
Here also is my contact information should you want to add or follow up on anything
later. I may be in touch in the near future to clarify statements made today. Thank you
again for your participation.

Questions (primary)
1. What is your educational background?
2. Please summarize your career experience.
3. Please describe your current role.
4. What is the promotion process at your organization?
5. What preparation, if any, have you had to progress at your current company? In
   your career?
6. What preparation, if any, has management recommended you pursue to
   progress at your current company? In your career?

7. Please describe your communication style. For example, do you consider yourself to be direct, indirect, wordy, brief? What characteristics would you ascribe?
8. Please describe any feedback you may have received on your communication style from supervisors during your career. From colleagues? From supervisees (if applicable)?
9. How do you define leadership? Management? Effective communication?
10. In what ways do you consider yourself a leader?
11. In what ways does your company or role require you to lead?
12. Please tell me about a time where you observed effective leadership. Tell me about the style of communication for the leader in the leadership example given.
13. Please describe for me the characteristics you perceive your current company to be seeking, when considering employees for a promotion.
14. Please tell me about a time, if applicable, where you changed your natural communication style to suit the situation? To serve a larger goal? Why did you change your style on this occasion?
15. What is the primary reason you perceive you have or have not advanced as far as you might like? What reasons have you been given for advancement and/or lack thereof in your current company? In your career?

Questions (secondary, to use as needed to follow up on above queries)
1. Please tell me more about that.
2. How would you describe that in another way?
3. Would you clarify that for me?
4. What was the effect of that on you? On colleagues?
5. How did you change your behavior as a result?
6. Please tell me about a time when you perceived or were told your communication style might have inhibited your career advancement.
7. How have you communicated your readiness to pursue a promotion?
8. If there is more you'd like to add related to leadership, advancement, and/or interpersonal communication, which I have not asked, please expound for me.

Appendix B

Consent Form

Creighton
U N I V E R S I T Y

Creighton University Institutional Review Board
2500 California Plaza, Omaha, NE 68178 • Phone: 402-280-2126
Email: irb@creighton.edu

CREIGHTON UNIVERSITY RESEARCH INFORMED CONSENT

Study Title: Female Communication and the Professional Advancement Experience
Principal Investigator: Julie Fogerson, Creighton Interdisciplinary Leadership doctoral
student and researcher
Principal Investigator's phone number: 425-503-3154

Study Summary
Important things to know:
- Taking part in research is voluntary. You can choose not to be in this study, or stop at any time.
- If you decide not to be in this study, your choice will not affect your relationship with the investigator of this study. There will be no penalty to you.

If you agree to participate in this study;
- Approximately 20 females, with approximately 15 to 30 years in their career, will be involved in this study.
- One number of visits is required.
- This visit will take approximately one hour.
- The potential benefits of participating in this study are contributing to a potential explanation for an aspect of the gender gap.
- The potential risks to be in this study are no more than is encountered in everyday life.

Introduction
You are being asked to take part in a research study of how communication style affects promotion to senior levels of leadership in the architectural and engineering fields. Please read this form carefully and ask any questions you may have before agreeing to take part in the study.

Study Purpose and Procedures
- The purpose of this study is to explore how communication style may or may not affect promotion to senior leadership.
- If you agree to be in this study, I will conduct an interview with you, asking questions about your role, career, communication style, manager, and promotion experience.

- The interview will take about 60 minutes. With your permission, I would like to conduct the interview via video conferencing and record the interview.

Benefits of Participating in the Study
- The potential benefits of participating in this study are contributing to a potential explanation for an aspect of the gender gap. There are no direct benefits to you.

Risks of Participating in the Study
- The potential risks to be in this study are no more than is encountered in everyday life.

Confidentiality
We will do everything we can to keep your records confidential. However, it cannot be guaranteed. We may need to report certain information to agencies as required by law. The records we collect identifying you as a participant will be maintained and stored on an external hard drive at my private residence.

Records that identify you and this consent form signed by you may be looked at by others. The list of people who may look at your research records are:
- The investigator and his or her research staff and students.
- The Creighton University Institutional Review Board (IRB) and other internal departments that provide support and oversight at Creighton University.

We may present the research findings at professional meetings or publish the results of this research study in relevant journals. However, we will always keep your name and other identifying information private.

Disclosure of Appropriate Alternatives
- An alternative would be to choose not to participate.

Compensation for Participation
- There is no compensation provided for participation.

Contact Information
- This consent form will be kept by the researcher for at least three years beyond the end of the study. If you have been approached by a third party and wish to participate, please contact the researcher, Julie Fogerson, at 425-503-3154 or by email at jmf97937@creighton.edu.
- For more information and/or questions, please contact the researcher's dissertation chair, Dr. Britt Watwood, at 804-335-7578 or by email at brittwatwood@creighton.edu.

SIGNATURE CLAUSE
You are free to refuse to participate in this research project or to withdraw your consent and discontinue participation in the project at any time without penalty or loss of benefits to which you are otherwise entitled, or any effect on your medical care.

My signature below indicates that all my questions have been answered. I agree to participate in the project as described above.

_____
Printed name of participant

_____   _____
Signature of participant   Date signed

The Creighton University Institutional Review Board (IRB) offers you an opportunity (anonymously if you so choose) to discuss problems, concerns, and questions; obtain information; or offer input about this project with an IRB administrator who is not associated with this particular research project. You may call or write to the Institutional Review Board at (402) 280-2126; address the letter to the Institutional Review Board, Creighton University, 2500 California Plaza, Omaha, NE 68178 or by email at irb@creighton.edu.

A copy of this signed form has been given to me. _____ Participant's initials

For the Research Investigator—I have discussed with this participant (and, if required, the participant's guardian) the procedure(s) described above and the risks involved; I believe he/she understands the contents of the consent document and is competent to give legally effective and informed consent.

_____   _____
Signature of responsible investigator   Date signed

<center>Bill of Rights for Research Participants</center>

As a participant in a research study, you have the right:

1. To have enough time to decide whether or not to be in the research study, and to make that decision without any pressure from the people who are conducting the research.

2. To refuse to be in the study at all, or to stop participating at any time after you begin the study.

3. To be told what the study is trying to find out, what will happen to you, and what you will be asked to do if you are in the study.

4. To be told about the reasonably foreseeable risks of being in the study.

5. To be told about the possible benefits of being in the study.

6. To be told whether there are any costs associated with being in the study and whether you will be compensated for participating in the study.

7. To be told who will have access to information collected about you and how your confidentiality will be protected.

8. To be told whom to contact with questions about the research, about research-related injury, and about your rights as a research participant.

9. If the study involves treatment or therapy:

    a. To be told about the other non-research treatment choices you have.

    b. To be told where treatment is available should you have a research-related injury, and who will pay for research-related treatment.