“Like a rush of adrenaline that you get from going somewhere special.” A case study analysis of professional development and gendered experiences in the technology industry

By
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B.A., University of Kansas, 2016

Submitted to the graduate degree program in Communication Studies and the Graduate Faculty of the University of Kansas in partial fulfillment of the requirements for the degree of Master of Arts.

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Date Approved: June 4, 2018
Abstract

Gender inequity perpetually exists in U.S. workplaces. While these issues have manifested in a variety of ways (e.g., pay gap, sex segregation, glass ceiling, leave policies, language, etc.), the dominant discourses that have created and maintained gendered workplace inequities must be continually critiqued. This study approached workplace gender inequity through the theoretical framework of organizational assimilation. Qualitative case study data about women’s workplace and professional development experiences was analyzed, and the study posited an argument for professional development to be used as a tangible tool in addressing workplace inequities. Results indicated that professional development, external to an individual’s workplace, became a powerful and organized setting for gender inequity issues to be analyzed. Within the male-dominated technology industry, this study’s participants were able to better understand and prepare for these situations as they moved back into the workplace. The findings revealed three significant themes: (1) identifying, resisting, and denying sexism; (2) underestimation and overcompensation; (3) TechWomen’s Community and Purpose. This study concludes by discussing theoretical and practical implications for communication, organizations, and gender in the workplace moving forward.
Acknowledgements

This thesis would not have been possible without the help and support of the kind and generous people around me, only some of whom it is possible to name here.

I would first like to thank my incredible advisor, Dr. Angela Gist-Mackey. Dr. Gist-Mackey’s commitment to meaningful research and engaged scholarship continuously influenced my approach to this study, and as I plan for the future. Her high expectations, constructive criticism, and unparalleled work ethic have pushed me to create quality work. Finally, Dr. Gist-Mackey’s genuine friendship has made this process an absolute pleasure.

I would also like to acknowledge Dr. Angela Pastorek and Dr. Adrianne Kunkel for their guidance as members of my thesis committee. Their areas of expertise and unique perspectives also elevated the quality of this study. Additionally, I would like to thank KU’s Department of Communication Studies for their financial support in my degree progress.

Next, I would like to thank the TechWomen community. Their passion for their work was contagious, and their excitement for this study was both genuine and appreciated. It was their openness to these topics that added meaning to this work.

Finally, I would like to thank my family and friends for their love, support, and humor throughout this process. With each challenge, they offered perspective and with each success, they offered celebration; I am eternally grateful. To my mom – thank you for teaching me the power of empathy through your honest commitment to the people and causes that you love. To my dad – thank you for teaching me the power of humor through your unwavering efforts to make people happy. And to my sister – thank you for teaching me the power of dedication through your passionate approach to every endeavor. I love you all.
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Chapter 1: Introduction

While there are myriad issues worthy of attention and action, one particular topic stands captivating attention and complicating conversations around the world: gender inequity. Gender inequities have long been present; it is why women, nearly everywhere, are paid less, receive less formal education, struggle with healthcare needs, and are represented less in political spheres than their male counterparts (World Economic Forum, 2017). In their 2017 Global Gender Gap Report, the World Economic Forum revealed that the United States of America ranked 49th in terms of the global gender gap, among the 144 participating countries. This ranking was based on four criteria, of which the World Economic Forum also considered. Among the four criteria, the U.S. ranked 19th in economic participation and opportunity, 82nd for health and survival, 96th for political empowerment, and tied for 1st (with 19 other countries) in educational attainment (World Economic Forum, 2017).

These statistics reveal systematic disadvantages for women. The actions and comments from the 45th President of the United States perpetuate and validate gender inequities, gender stereotypes, and sexual assault. The #metoo movement, which gained viral notoriety in October 2017, highlights the sexual assault and sexual harassment that many women experience inside and outside of the workplace. Accusations are making headlines regarding inappropriate behavior across all industry lines including politicians (Donald Trump, Roy Moore, Al Franken), Hollywood A-listers (Harvey Weinstein, James Franco, Kevin Spacey, Louis C. K.), music moguls (Russell Simmons, R. Kelly, Miguel), journalists (Matt Lauer, Charlie Rose, Glenn Thrush), chefs (Mario Batali, John Besh), and athletes (Ike Taylor, Heath Evans, Marshall Faulk), among others at the center of this controversy. Powerful men yield an authority that jeopardizes women and other minority groups. It is not surprising to think about the prevalence
of these issues in male-dominated industries, places where women are already socially constructed as inferior. Where there is a greater gender disparity, there is likely a greater risk of gender inequity. Science, technology, engineering, and math (STEM) fields are at risk for heightened issues regarding gender inequity. Farhad Manjoo’s *New York Times* article, “Exposing Hidden Bias at Google,” highlighted that in 2014 “men [made] up 83% of Google’s engineering employees and 79% of its managers.” Additionally, “Google said that of its 36 executives and top-ranking managers, just three [were] women” (Manjoo, 2014).

Gender inequity in U.S. workplaces continues to persist. From blue-collar factories to white-collar corner offices, the ways in which men and women enter into, function within, and exit from organizations differs (Allen, 1996; Acker, 1990). Opportunities and challenges in the workplace merit unique commitments from members of all genders as a means of addressing societal constraints. Regardless of its gendered nature, inequity (Acker, 1990) plagues and permeates all aspects of organizational life.

The glass ceiling, though colloquially cracked, is by no means broken. Workplace inequity is seen through, for example, the gender pay gap. The National Committee on Pay Equity reported 2016 statistics showing that women made 80.5 cents to a man’s dollar (NCPE Website, 2017). Race, typically, increased this gap as Black and Hispanic women made 70.6 and 60.7 cents, respectively, to the average White man’s dollar (NCPE Website, 2017). This issue is particularly problematic as women are not only being paid less, but they enter the workforce, on average, with more student loan debt than their male counterparts (Yahoo Finance, 2018). Sallie Krawcheck, the CEO of Ellevest (a women-led digital investing program), shared that women hold nearly two-thirds of the U.S.’s $1.3 trillion in student loan debt; this averaged to $20,000 for women, and closer to $30,000 for women of color (Yahoo Finance, 2018).
Inequity can also be seen as work has been socially constructed into gendered occupational roles. As noted in the 2016 *Atlantic* article, “What Gender Pay-Gap Statistics Aren't Capturing,” Lam offered that societal norms and expectations pushed women into particular career paths and that this has largely gone unaddressed by pay gap data. Moreover, this concept of “sex segregation” highlighted the extent to which jobs were dominated by a certain sex (Allen, 2011). It occurs as women are routinely talked over during meetings (Tannen, 1994) and their contributions dismissed (Bear & Woolley, 2011). Opportunities for women’s career advancement have been less frequent and less significant. Women have not been as present as men in the technology industry and subsequently they have also struggled to attain high-level positions. The 2010 *Harvard Business Review* article, “Why Men Still Get More Promotions Than Women,” explained that similar numbers of men and women made lateral career moves to comparable jobs; however, these lateral moves led men to more promotions meanwhile they actually replaced women’s promotions (Ibarra, Carter, Silva, 2010). From these examples and countless others, it is clear that workplace inequity continues to exist as a problem due to the social perpetuation of gendered biases and stereotypes as acceptable habits. These social systems then become reinforced in organizations due to hierarchal and cultural constraints. Arguably, organizations are not currently doing enough to commit to meaningful change.

Significant challenges for women in the workplace have continued to exist, in part because of the way dominant discourses have created and maintained gendered workplace inequities. Discursive practices are the normalized ways that individuals have created and demonstrated their experiences through speaking and writing (Allen, 2011). Discourse has historically manifested in organizations through formal and informal verbal communication between members, written materials established by and produced for the organization, and more.

Consequently, social norms have risen in these forms and gender inequity has persisted in part because of dominant discourse. For example, a woman socialized to believe she should cook and clean for her family then may subconsciously gravitate towards taking care of a kitchen or breakroom space in the office. Separately, a young girl may be told that she is bad at and/or should not be interested in math, therefore she might have felt reluctant to pursue a career in STEM when she is older. Continued discourse about gendered roles and responsibilities, whether conscious or not, has fed into the culture of the larger workforce generally, as well as into specific organizations. Then, consistent perpetuation of these practices constitutes organizations as hegemonic structures; individuals’ actions have implicitly or explicitly demonstrated consent to the group’s culture, and thus workplace inequity strengthens. Though patriarchal practices have endured, change could begin in smaller instances that could accumulate to dismantle such hegemonic structures.

Professional development serves as an organized setting for issues of gender inequity to begin being acknowledged and mitigated. Professional development can be viewed in a variety of ways: formal activities such as courses and workshops from the organization, educational institutions or separate associations, as would informal activities like conferences, face-to-face or email discussions with colleagues, and/or independent projects (Attebury, 2017). Exploration of professional development allows for greater understanding of the way gender inequity in the workplace could be remediated in more complete and actionable ways.

This research project has approached the study of women’s professional development through the use of organizational assimilation theory. Organizational assimilation is “concerned with the learning content and process by which an individual adjusts to a specific role in an organization” (Chao et al, 1994, p. 730). This theory’s ability to incorporate and dissect various
stages provides more detailed insight into all phases of a member’s organizational life and how women’s professional development might contribute to career advancement. Beginning with the anticipatory socialization and encounter stages, individuals’ opinions about workplace inequity can be examined. Exploring women’s experiences in the metamorphosis stage could provide researchers with more critical reflection about how gender inequity has manifested for established members. Professional development would likely be particularly conducive for metamorphosized members; these individuals would have the organizational experience needed for self-analysis, as well as the career trajectory to still desire meaningful change. Additionally, individuals’ perspectives on inequity and its potential role in a person’s organizational exit can be critiqued. The scholarly exploration of organizational members’ experiences will justify their unique contributions at each phase of this process; a new point in a person’s career could have facilitated new revelations about their organizational life. In exploring these experiences, professional development would likely aid in addressing inequity issues at various stages of organizational life.

The purpose of this study was to explore how the presence and/or absence of professional development experiences in women’s careers could either mitigate and/or contribute to gendered discourses and inequity in the workforce. To investigate this topic, the researcher first analyzed what was involved in women’s experiences with professional development in technology; this study then shifted to analyze how these professional development experiences related to women’s careers as a whole, and examined how discursive power inequities were connected to women’s experiences of professional development. In conducting a case study, the researcher targeted one women’s professional development organization in a Midwestern metropolitan city. Insight from organizational members about their experiences was acquired through semi-
structured interviews, participant observation, and collection of organizational artifacts. The results of these methods contributed to meaningful discussion on the role of professional development in addressing women’s experiences with gendered discourses and workplace inequity.
Chapter 2: Literature Review

Gender and Work

Gender and work are pressing, interrelated topics for today’s contemporary workforce. Yet, constructive discussions about issues of gender, such as organizational culture dynamics and/or policies, rarely have addressed gender inequity in the workplace in an explicit manner. These conversations must first acknowledge how women arrive at their organizational roles. The difference between sex and gender contribute to the perspectives that individuals have of the workplace.

To be clear, sex is a classification based on biology, whereas gender relates to the cultural and social norms of masculinity and femininity (Allen, 2011). A person’s sex is categorized at birth, whereas gender is an evolving and dynamic process that individuals engage in throughout their lives. To this end, gender identity relates to a person’s internal experiences and sense of self, whereas gender expression relates to how a person shares/communicates their gender to the world (Gender Spectrum, 2017). Literature, both inside and outside of academia, has used the terms gender and sex inconsistently and interchangeably; please note, while these are distinct concepts with nuanced differences, this project also uses the terms gender and sex interchangeably. Additionally, the societal influences, related to gender and sex, placed on a person entering a new workplace start long before one’s first day on the job; rather, effects can be seen as early as childhood.

**Gender inequity.** The manifestation of gender inequity has occurred in several systematic ways. To begin, differences in occupational choices have been heavily influenced by the socialization messages that individuals receive as children. Mehta and Strough (2009) suggested that sex segregation, the idea that girls and boys have historically divided into same-
sex groups, starts during childhood and then persists throughout one’s life span. Children have been found to prefer same-sex friendships when asked about preferences for their free time and/or company for schoolwork tasks (Mehta & Strough, 2009). These same-sex relationships were significant because these peers had the potential to influence the attitudes, interests, personas, and skills in their relationships, further reinforcing stereotypical gender constructs (Mehta & Strough, 2009). Influences at a young age socially construct occupations/roles as gender appropriate for girls and boys; the fostering of certain interests among genders created trends for boys to enter, for example, engineering roles, while girls may gravitate towards nursing jobs (Mehta & Strough, 2009). Moreover, Mehta and Strough (2009) argued that notions of behavioral compatibility (kids’ play styles and adults’ hobbies/interests), communication styles (kids’ interpersonal skills and adults’ language use), third-party determinants (kids’ parental influence and adults’ social network composition), and institutional practices (kids’ work in classrooms and adults’ behavior in workplaces/sports) perpetuated gendered issues. The implications of power from these gendered relationships and stereotypical gendered positions construct individuals’ views of, and subsequent expectations for, workplaces and occupational futures.

Bellas (2001) built on this idea of sex segregation, as it related to the extent that men and women were focused in different professions, occupations, and organizations; the domination of a particular gender in specific industries signaled the social culture about the given line of work. Bellas (2001) argued that social norms regarding emotion, such as women as caring and nurturing negotiators, played into the prevalence of sex segregation when looking at roles that do not necessitate this skill set. For example, women represented 13% of employed engineers in 2010 (Pew Research Center, 2015); in 2011, women represented 18.6% of undergraduate
students enrolled in engineering programs (Pew Research Center, 2015). Overall, the social norms communicated to children, youth, and adolescents about gender frame their workplace expectations in problematic ways that perpetuated inequity.

Moreover, organizational roles indicate gendered parameters for men and women in organizations. It is key to recognize that patriarchal systems are structured in ways that prioritize male dominance (Allen, 2011); organizations have historically been constructed to this end. The nature of these organizational systems shapes how women and men communicate, themselves. The discourse about existing as an organizational member is framed and prescribed differently for each gender, even when focusing on how roles were constructed in organizations more broadly. Anderson-Gough, Grey, and Robson (2005) stipulated that individuals with more power (i.e. men, senior level officials, etc.) were more likely to promote candidates and employees that had similar backgrounds and opinions as their own. This tendency reinforces the patriarchal system of organizations. Throughout interactions, then, women engage in impression management behaviors to better facilitate their organizational image.

The U.S. pay gap is another way in which differences among men and women have occurred systematically. The American Association of University Women’s (AAUW) (2017) “The Simple Truth About the Gender Pay Gap” publication defined the gender pay gap as “the difference in men’s and women’s median earnings, usually reported as either the earnings ratio between men and women (women’s earnings divided by men’s earnings) or as an actual pay gap (men’s earning minus women’s earnings then divided by men’s earnings)” (p. 6). The reality of women’s unequal pay could be recognized through this definition. As noted in the introduction, 2016 statistics for the National Committee on Pay Equity highlighted that women made 80.5 cents to a man’s dollar (NCPE Website, 2017). To put this in perspective, a woman in the United
States had to work 15.5 months from January 1, 2015 to April 12, 2016 in order to make the same amount of money that a man made working from January 1, 2015 to December 31, 2015 (Somander, 2016); simply put, women worked 102 extra days in order to account for the pay difference in 2015. The prevalence of the gender pay gap stresses the systematic inequity that permeates workplaces. While the contributing factors have varied, the differences in pay are representative of the second-tiered status of women in the workforce. Therefore, inequitable paychecks are routinely written and the structure of gender difference continuously reinforced.

Through this pattern, social norms have influenced the culture of pay negotiation. Women were less likely than men to ask for money, even without a difference in their actual and perceived performances (Small, Gelfand, Babcock, & Gettman, 2007). Performances in Small et al.’s (2007) study signaled the same duties for men and women and yet the social influences on women created parameters for acceptable behavior starting in the initial negotiation stages. Kray, Thompson, and Galinsky (2001) offered a similar idea when they reminded individuals that negotiation tasks tested ability and determined future success, and thus found women’s performances suffered while men’s were strengthened. Moreover, the socialization of women’s experience framed their likelihood to simply approach negotiation conversations. When opportunities were cued as “asking situations” rather than negotiation situations, then women have been found to engage in these conversations more effectively (Small et al., 2007). This demonstrates the power of discourse. Moreover, when the task was framed as “asking” instead of negotiating women felt more comfortable, a premise in line with feminine social norms to maintain less powerful and more approachable behaviors. To this end, when women negotiated for someone else, rather than themselves, then they were also more successful (Bowles,
Babcock, & McGinn, 2005). Though individual choices and group efforts were meaningful, the scope of the systematic challenges that women face remains clear.

Important to note, though, is the fact that the systematic issue of gender inequity in the U.S. looks different than the rest of the world. Where the U.S. has seemingly stalled, other countries have actively begun addressing gender inequity through targeted research and specific changes. A recent report from the Organisation for Economic Co-operation and Development (OECD) revealed that out of 35 surveyed countries, 23 believed that access to better childcare, and 13 believed that equal pay for equal work were the best ways to get more women working (OECD, 2017). To this end, six countries applied increased subsidies or benefits for public childcare and another two offered free public childcare (OCED, 2017). Nine countries have initiated compulsory gender quotas for state-owned enterprises and private limited companies and seven have created measures that required a more detailed disclosure on gender pay gaps (OECD, 2017). While these actions are a good start, these countries could and should continue to do more; furthermore, the U.S. should actively engage in similar initiatives. Regardless, each society’s culture has played a role in how gender inequity has manifested in the workplace. These widespread efforts speak to the global power of the glass ceiling.

The glass ceiling is the culmination of many of these gender inequity issues in the workplace. The United States Department of Labor defined the glass ceiling as “barriers that have blocked the advancement of minorities and women” (Office of the Secretary, 1995). This colloquial metaphor has represented the systematic placement of individuals into society’s prescribed schema. Sheryl Sandberg (2014) recognized that women have had the choice to work inside or outside of the home for some time and, while that should be celebrated, it simply was not enough.
Leadership roles, even more so, accentuate gender differences in the workplace. The Pew Research Center (2017) noted that women occupied 5.4% of Fortune 500 companies CEO positions and represent 20.2% of Fortune 500 companies’ board members. Additionally, in 2017, the U.S. Senate was 21% women and the House of Representatives was 19.1% women (Pew Research Center, 2017). In 2015, more than half (53%) of the American public did not believe that women would gain parity with men in top executive level positions (Pew Research Center, 2015); more than two thirds of the public believed men had an advantage over women in attaining high level political positions (Pew Research Center, 2015). Consistently, 52% of women and 33% of men believed that women faced higher standards and consequently did not occupy as many leadership positions (Pew Research Center, 2015). Remarkably though, the Pew Research Center’s 2015 report cited that women were perceived to have an advantage over men in qualities that people desired in a leader, such as honesty, ambition, and compassion. While these personality traits are significant, women still face difficulty when challenging the proverbial glass ceiling.

Walker and Aritz (2015) found that women displaying more masculine leadership behaviors during a group task were still not viewed as the leader of the group by their peers. The communicative behaviors being displayed by the woman was undermined by her gendered appearance. Moreover, women second-guessed their communication as they coped with the impostor syndrome. Vinnicombe and Singh (2003) described this phenomenon as occurring when “women fear they will be found out or unmasked as unworthy of the success they have attained or the positions they have won” (p. 302). In addition to critiques from others, this lack of confidence further demonstrated how gendered structures impact women in the workplace.
Sandberg (2014) postulated that society collectively fails to encourage women to seek leadership positions; systematic barriers like the glass ceiling then perpetuate this social conversation. Instead, Sandberg (2014) prompted, “it is time to cheer on girls and women who want to sit at the table, seek challenges, and lean in to their careers” (p. 159). Identification of gender inequity in the workplace and a shared commitment to address these problems must, first, be informed by the communicative acts playing into such issues.

**Gendered communication.** Beyond organizational roles and in addition to the previous conversations about sex segregation, the pay gap and the glass ceiling, there are formal practices that routinely assign women a secondary status in the workplace. These formal actions have established women’s gender as a stigmatized identity, or “an attribute that is deeply discrediting” (Goffman, 1963, p. 3). Problematically then, the challenges that women face in the workplace are exacerbated by smaller systematic issues related to communication. For example, inequity in the workplace also shows up through formal communication about pregnancy and maternity leave in policy discourses.

In one study, women often perceived pregnancy as a potential threat to their organizational membership and professional identities (Little, Smith Major, Hinojosa, & Nelson, 2015). The stereotypes that Little et al. (2015) described women having felt highlighted potential risks: feeling viewed as “delicate,” “irresponsible,” and like they were “slacking off” (p. 18). These were fears pregnant women had about their organizational positions. Whether these thoughts stemmed from verbal or nonverbal communication in the workplace, the gender difference at play signaled less power on the part of a woman. Additionally, written organizational policies that accompanied issues of maternity or family leave formalized and constricted processes that were unpredictable in nature. Kirby and Krone (2002) offered that
women who chose to utilize the leave policies felt resentment from their coworkers upon return. Expanding on this idea, individuals who did not use leave policies described feeling that while they were committed and loyal employees, they were taken advantage of in order to complete the work of the person on leave (Kirby, Krone, 2002). This animosity was reinforced each time a family leave policy was used and women repeatedly took on such stigma.

Next, communication styles vary and are viewed differently based on an individual’s gender. Organizations have been inherently gendered as masculine and, as a result, have favored workers that were male, full-time, and thus perceived to be objective, rational, and so on (Aker, 1990). Due to the gendered nature of workplaces, women and their communicative behaviors, among other traits, signal qualities like that of a “marked” category (Brekhus, 1998). Walker and Aritz (2015) reiterated several widely agreed upon communicative style traits during their study on leadership. Women’s communication styles are perceived to be more indirect, collaborative, and supporting of feedback, whereas men’s styles tend to be perceived as direct, autonomous, and dominant in conversation facilitation (Walker & Aritz, 2015). Powerless language, speech that is deferential in nature, is more likely to be perceived from women than from men (O’Barr, 2001). For instance, women are more likely to approach conversations and single statements with questioning intonation than men (Allen, 2011; Walker & Aritz, 2015). The use of this language, as a symbol, reinforces the gender imbalances existent in organizations (Aker, 1990). Women have been socialized to use hesitation, overuse politeness, and incorporate hedges and intensifiers more than men (O’Barr, 2001). Differences in confidence level were also perceived as men relied more on the “report” aspect of their roles while women relied on the “rapport” aspect in their own positions (Tannen, 1994).
These ideas combined to support the main argument in the 2015 *New York Times* article “Speaking while female: Sheryl Sandberg and Adam Grant on why women stay quiet at work”; Sandberg and Grant (2015) postulated that gender biases exist in the workplace largely due to the ways in which men’s and women’s contributions were facilitated by organizations. The suggestion, by Sandberg and Grant (2015), to give women the speaking floor whenever possible was aided by actions like former President Obama’s press conference behavior soliciting questions from women only. Taking significant action, similar to Obama’s, would necessitate training and insight for women and men, and is an organizational shift that could be aided by professional development practices. In the workplace’s present state, the conscious and/or unconscious communicative behaviors and tensions that exist for women demonstrate the need to address the organizational challenges that these individuals encounter. When women “have to help their colleagues forget their sex in order to conform to organizational expectations” (Anderson-Gough et al., 2005, p. 488), then there is a larger issue needing to be examined. Distinct efforts, like this one, further highlight how gender differences are problematized in the workplace and how gender functions as a prominent component in organizations’ underlying structures (Acker, 1990).

Informal communication and commonplace language also perpetuates gender differences. Male privilege crosses task and social boundaries in workplaces, marginalizing women’s work and interactions. Language about gender offers a distinct dichotomy between men and women. For example, workplace inequity can be seen as masculine pronouns have served as the default in situations when gender is not specified (Allen, 2011). It is seen when masculine words are placed before feminine words, like “he or she” as a form of comparison (Allen, 2011). It also occurs as a woman’s formal title has been dependent on her relationship status, such as “Mrs.”
“Ms.,” and “Miss,” whereas men are consistently addressed as “Mr.” (Allen, 2011). The ways in which gender inequity has been historically and systematically communicated in organizations demonstrates the need for a detailed analysis and exploration of realistic solutions.

Beyond explicit language, gender differences are perpetuated in settings that systematically exclude women. The weight of social participation during interactions outside of work are implicitly connected to relationships and power dynamics at work. For example, casually constructed meetings during odd hours, such as during breakfast or over an extended happy hour, distance women who also are likely to have increased familial obligations (Mann, 1995). These issues have been found to be perpetuated by the lack of cost effective childcare and paid leave policies for working women (Dias, 2016). Yet, as Dixon (2005) accentuated, women who did find childcare were still often responsible for their kids when it came to arriving late or leaving early, and/or adjusting schedules unexpectedly due to sick children or other arrangements falling through; these issues further demonstrate how women may have refrained from taking on beneficial, but unpredictable projects (Dixon, 2005). Moreover, sports-related events and conversations have traditionally sidelined women. Socially constructed masculine activities, like playing golf or attending a sporting game, have traditionally isolated women from particular invitations and interactions (Mann, 1995). Failure to attend social opportunities, like those previously mentioned, are often observed by other organizational members and noted as a hindrance to that individual’s ability to socialize (Anderson-Gough, Grey, & Robson, 2005). An ability to network and connect with colleagues draws on the mentality of “being a team player,” which is a quality that has historically been gendered as masculine; interestingly, research has proven that more women on a team has increased the productivity of the group (Woolley,
Malone, Chabris, 2015). Thus, the usefulness of female participants is clear, yet social systems have not fully facilitated organizational equity.

Women employees need more opportunities to expand their professional knowledge and networks in order to better cope with issues of gendered inequity in the workforce. Chances to engage in professional development increases the satisfaction and motivation that employees might experience in their roles (Lyons et al., 2016). While professional development occurs in various formats and situations, the need for women’s professional development has remained consistent.

**Professional Development**

A more critical and targeted use of professional development could help women to address the systematic gender inequities that they encounter in the workplace. Whether initiated by an employee or by an organization, professional development opportunities have the potential to offer individuals tangible results as they progress in their careers. Professional development has been defined as “the formal acquisition of skills and knowledge that can be applied in a work setting and used for career and/or business advancement” (Lyons, Young, Hanley, & Stolk, 2016, p. 320). In this line of thinking, professional development can occur in single, defined, formal spaces and/or during recurring, fluid, informal experiences. Defined professional development sessions served as the primary focus of this project, in order to examine and effectively address the changes needed to help women within the boundaries of distinct workplace experiences. Moreover, formal professional development settings can work as tangible spaces for inequity to be challenged; the systematic and/or established inequities that women experience can be more accessible to examine than they would be in informal interpersonal, and perhaps workplace specific, contexts.
Professional development can be used to better support marginalized individuals in the workplace, by recognizing and tackling gendered inequities that they encounter. Language from and about women, formal and informal organizational policies, and the notorious glass ceiling, among other issues, have interfered with a woman’s ability to do her job. Duncan (2013) noted that women, in particular, specified a higher need for professional development than their male counterparts. Moreover, training in data usage, personnel management, conflict resolution, and general leadership practices could better support women in the workplace (Duncan, 2013).

Duncan (2013) designated that “women spend on average seven years more as teachers than men before accepting their first principal appointment” (p. 305) further clarifying this call for action. The issue of stalled promotion, here by Duncan (2013), highlighted how leadership opportunities systematically omitted pathways for women’s advancement, thus perpetuating the glass ceiling. Helitzer et al. (2016) indicated that personal desires to avoid isolation, develop connections with other female colleagues, and find potential mentors were reasons that women entered professional development settings. Institutions might then influence women to attend professional development sessions through financial support, specific recommendations from other female colleagues, and/or a prominent history of advocacy for women in the organization (Heltizer et al., 2016). These insights offer a foundation for this study: exploring how, when, and why a woman identifies and communicates her personal motivations and her organization’s influences to engage in professional development, as well as to justify why professional development needs thoughtful and significant attention.

Organizations have reaped benefits from professional development through increased productivity, group performance, and customer satisfaction (Lyons et al., 2016). These advantages of professional development are often plagued, though, by organizational challenges
that limit opportunities. Addressing the cost, time, and logistical details of professional
development has made such sessions unappealing for organizations (Lyons et al., 2016).
Moreover, the lack of awareness about program providers and tailoring options has increased
skepticism about how meaningful professional development could be (Lyons et al., 2016).
Understandably, then, organizations and their leaders have not wanted to use scarce resources on
futile curriculum; therefore the manifestation of professional development sessions and their
impact for attendees merits analysis.

**Social interaction in professional development.** Communication behaviors inform,
occurs within, and construct every stage of professional development processes; therefore
communication is an inherent component of the learning process. This study aimed to present
professional development as a tangible starting point for analyzing communication behaviors in
learning interactions. Attebury (2017) highlighted that reflection about professional development
experiences was not only desired by participants, but was also effective in reinforcing the lessons
of the session. Regardless of whether professional development reflection took the form of a
written commitment to action points or occurred as a conversation in the car ride home with
colleagues, Attebury’s (2017) proposal to engage in reflection as part of professional
development justifies opportunities for future research. Professional development emphasizes
that “practice is not a situation separate from the professional, but a social, dynamic, and integral
part of being a professional working in the current context” (Webster-Wright, 2009, p. 725).
Through learning-based approaches to professional development, organizations can capitalize on
the accountability and agency of individuals (Webster-Wright, 2009), as these people continue to
evolve in the workplace. Additionally, individuals can articulate their positions and realities as a
means of developing personal identities and justifying their professional growth. The discursive
sharing of professional development experiences could connect to, as well as accentuate the most significant components of individuals’ work lives.

Professional development must also be recognized as a significant and useful tool in developing a person’s network. Helitzer et al. (2016) posited, “regardless of career stage, women reported that they were motivated to attend the programs to reduce isolation, to develop a network of women colleagues, and to find women mentors” (p. 363). This is likely to be exacerbated for women in male-dominated industries, like technology. Women can begin to better address their challenges in the workplace, when it is easier to make sense of their collective experience. Professional development can help to solidify many of these desired professional connections by taking an interactive approach, based in collaboration and critical feedback. Furthermore, organizations should be thinking critically about how they initiate, facilitate, and act on meaningful discussions. Interactions may vary from pairs to large groups, but organizational choices to adopt or promote professional development can specifically address workplace inequity and thus benefit all employees alike. Subsequently, this study explored the communication expectations that participants had for their technical and social interactions during professional development.

**Organizational Assimilation Theory**

Organizational assimilation, as a continuous process, considers how individuals learn the social information and skills needed for their roles within organizations. Jablin (2001) offered that assimilation, or integration, into a group’s culture is characterized by two key processes: socialization and individualization. Attempts to socialize employees or members, therefore, include planned and unplanned efforts from the organization (Jablin, 2001). In addition, organizational members work to individualize their experiences and roles to better suit their
needs (Jablin, 2001). The interactive nature of the member-organization relationship elicits a continued commitment from each party in order to meet evolving needs.

**Phases of organizational assimilation.** Organizational assimilation begins with anticipatory socialization, or the time in which individuals anticipate taking roles within one or more organizations and/or vocations (Kramer, 2010). This time allows for a person to evaluate advantages and disadvantages of specific workplaces or groups (organizational anticipatory socialization), types of work (vocational anticipatory socialization), and position-specific responsibilities (role anticipatory socialization) (Kramer, 2010).

Second, the encounter phase of the assimilation process starts when individuals formally take on an organizational role and become an organizational member (Kramer, 2010). The encounter phase allows for individuals to first interact through their new positions as recognized group members. Moreover, initial work and social interactions characterize this stage for new members.

Third, the assimilation process considers how individuals complete metamorphosis, or transition from organizational newcomers to established members (Kramer, 2010). The transition may be marked by a significant event or may be a gradual and subtle change; regardless, the individuals evolve within the bounds of the organization. Additionally, this is a continuous process (Kramer, 2010); to this end, established organizational members engage in metamorphosis as they mature on the job (Chao, O’Leary-Kelly, Wolf, Klein, & Gardner, 1994) as a means of addressing formal group changes, newcomers’ dynamics, and general organizational culture shifts.

The final step in the assimilation process considers a member’s exit from the given group. Exit can be voluntary (individual initiated) or involuntary (organization/other member
initiated), and encompasses how members disengage, turn over, and/or otherwise leave the organization. An individual’s work and workplace relationships, as well as the work and relationships of remaining members, have been found to evolve during the exit stage (Davis & Myers, 2012). In particular, the emotion elicited from exiting an organization could affect the connections and communication of exiting and remaining members (Davis & Myers, 2012).

Consideration of each of the four phases, the interaction among these processes, and the relationships occurring throughout are needed to accurately analyze an individual’s experience as they joined organizations; each also offers a unique approach to why individuals engage in professional development sessions. Importantly, the examination of organizational assimilation in this project focused on women as “women’s lives are distinct from men’s [and] most knowledge does not reflect their realities” (Allen, 1996, p. 259). Before analyzing the role of each assimilation phase, it is important to acknowledge organizations as powerful structures with great influence over their members and members’ relationships.

One primary way that members experience their organizational lives is through the lens of their workplace’s structure. Structures, or “the broad arrangements among society members and focal institutions” (Scott & Myers, 2010, p. 81), have historically guided the behaviors of organizational members simply through their functioning. Formally or informally, the working dynamics of a group establishes expectations for how to act and interact in such spaces. This is heightened by the various types of relationships in which an individual may have participated. Sias, Krone, and Jablin (2002) explained that microsystems, mesosystems, and macrosystems accentuated the unique demands individuals have experienced based on their organizational relationships. Structures’ agency, or the mere “capacity to rationalize” (Scott & Myers, 2010, p. 11) have impacted how individuals actually chose to engage in organizations. The relationship
between structures and agency, or the “duality of structure,” addresses the interactive nature of organization-individual experiences; as organizational structures function then individuals enact agency, and as organizations socialize members then members individualize their organizational experiences. Accounting for this give-and-take dynamic can more accurately define the professional development experiences of and influences on organizational members as they go through each phase of the assimilation process.

**Organizational assimilation phases’ relevance.** To begin, the anticipatory socialization phase inherently involves acts of self-presentation and impression management. Impression management was defined by Leary and Kowalski (1990) as “the process by which individuals attempt to control the impressions others form of them” (p. 34). As a result, potential new members may have received limited accurate information or information that was unrealistic about the organizational members and organization in this first stage (Kramer, 2010). Towards this end, inequity occurring in the workplace is likely an aspect of organizational culture that the group will have worked to mask. Realistic job previews, or interviews and organizational visits that addressed positive and negative aspects of workplace life (Kramer, 2010), have become a prominent asset in fully engaging the anticipatory socialization process. Internships can also aid this process. Dailey (2016a) suggested that internships had a significant effect on a person’s familiarity with supervisors and with coworkers, recognition, job competency, and role negotiation. Interns learned about the organization’s culture and specific vocations, as well as became socialized to the organization’s expectations and its members (Dailey, 2016a). Together, realistic job previews and internships can provide key information for a person evaluating an opportunity. Anticipatory socialization may also highlight the ways in which organizational and role options are presented for individuals. History shows that “positions of power or prestige
usually went to White men, while less powerful/prestigious jobs went to people of color or women” (Allen, 1996, p. 263); therefore consideration about what roles/organizations are achievable, for whom, and through what behaviors must inform experiences of anticipatory socialization.

Professional development may interject, during anticipatory socialization, by helping an individual gain knowledge one may not otherwise receive prior to one’s first day on the job. Additionally, Allen (1996) noted, “women are often excluded from informal networks that frequently form powerful, important aspects of the socialization process” (p. 260). Professional development may be incorporated into the anticipatory socialization process as a critical and productive method for women to gain information and insight. This opportunity for professional learning may be elevated by themes from the Model of Rotational Socialization. The Model of Rotational Socialization is powerful in that it “underscores individuals’ agency, because rotations provide the next opportunity for employees to take initiative to learn about and adjust to their next rotation (rather than the organization socializing employees)” (Dailey, 2016b, p. 19). While rotations are not necessarily the solution to workplace inequities, professional development provide similar opportunities: spaces where individuals can exercise their agency as a means of better understanding their ever-evolving roles within continuously-changing organizations. As Dailey (2016b) suggested, these experiences could demonstrate “how employees use communication to proactively network, to learn about, and to work towards future roles” (p. 19).

The benefits of authentic anticipatory socialization influence the encounter stage, particularly so that individuals can maximize their personal strengths while entering an organization. Kramer (2010) noted that established organizational members must make sense of the given newcomer and vice versa. Recognition of the assimilation process, thus, provides
meaningful information and connections for both parties involved. As Chao et al. (1994) suggested, “organizational newcomers have the greatest need for organizational socialization” (p. 741). A connection could be drawn to consider differences in how this support surrounds women; as Allen (1996) maintained, women and people of color may often be “left to fend on their own” and “may hesitate to ask for help for fear of being viewed as deficient” (p. 266). Even in the first two stages, the impact of assimilation is so significant that addressing this process, via professional development, can create important benefits for the entering organizational members.

The metamorphosis phase of the assimilation process has been identified as particularly poignant as a person makes the change to an established organizational member (Kramer, 2010). While this individual perspective highlights a significant shift, the organizational role is a position the member has likely been occupying for some time and therefore the organization’s culture is also salient. Kramer (2010) stated, “the culture can welcome and encourage acceptance of diverse perspectives and backgrounds or act in an exclusionary manner” (p. 119). Worldviews, professionally and personally, can permeate the formal and informal interactions that a member experiences. For situations in which patriarchal norms and gender stereotypes are prevalent, women may interpret their membership differently. Additionally, relationships are relevant in the metamorphosis phase as these connections inform individuals’ positions within organizations. Kramer (2010) explained that supervisor-subordinate and/or mentor-protégé relationships may be affected as individuals come to know each other better and understand more context and trust; peer relationships could also change based on shared experiences and/or task proximity (Kramer, 2010). While individuals may not receive the same chances to form relationships (Kramer, 2010), these ties have certainly played a historical role in workplace
realities. Regardless of type, relationships would inevitably affect established members’ perspectives in positive and negative ways.

The metamorphosis stage highlights organizational members’ perspectives once they adopt the role of an established member. Regardless of how this personal assessment occurs, metamorphosis facilitates analysis in a continuous nature (Kramer, 2010). This stage has the potential to be the lengthiest phase, and as a result must be repeatedly evaluated due to the evolving nature of members’ experiences. More time spent in metamorphosis creates a larger umbrella of workplace interactions to be considered, and perhaps more instances of workplace inequity. Experiences of inequity are then addressed through sensemaking behaviors.

Weick, Sutcliffe, and Obstfeld (2005) wrote, “sensemaking involves the ongoing retrospective development of plausible images that rationalize what people are doing” (p. 409). Individuals may use this process to justify how interactions in the workplace are acceptable and appropriate, whether these instances actually are or not. Attempts to rationalize or make sense have begun with situations of chaos, before members worked to interpret, bracket, and label these experiences (Weick et al., 2005). Moreover, sensemaking was typically done retrospectively, influenced by social factors, and for the sake of future actions (Weick et al., 2005). As sensemaking occurs, organizational members shape a workplace’s culture; significant events for organizations and/or individuals can be driving forces in sparking equitable change.

Dailey and Browning (2014) highlighted this fact by stating, “narrative repetition can aid in change because stories that are repeated over time can serve as an example for organizations” (p. 35). In the metamorphosis stage, women could capitalize on narrative repetition as a means of making sense of their experiences and better addressing issues of workplace inequity; this would require effort and perhaps elicit emotion from individuals. Allen (1996) shared this
concern stating, “what did surprise me, then, is the incredible amount of energy that I had to expend processing these types of interactions” (p. 264). Needless to say, the problems that women have experienced as established organizational members have influenced their identities within the workplace; their ability to comprehend their own experiences and others’ has the potential to shape how they engage in the future. Thus, it is purposeful professional development that has the potential to aid participants as they make sense of their interactions, experiences, and observations, as well as to educate women with skills and tools they can use to navigate their work lives. Current employers or independent professional development opportunities can help prepare women for future situations; however, choices to leave a particular workplace may occur regardless. Thus, organizational assimilation’s exit stage merits consideration in this process too.

Exiting an organization, assimilation’s final phase, is inevitable. Voluntary and involuntary exits, the announcement process, disengagement, and the general components of exiting can bring about unique feelings from individuals towards their workplaces. “Exit has the potential to be anxiety producing for both individuals and organizations” (Klatzke, 2016, p. 50). Regardless of the emotions associated, the circumstances that inform the exit stage are noteworthy. In the particular context of workplace inequity, exit may arise as a result of a toxic culture, a significant incident, gradual negative interactions, and/or unfulfilled expectations, among others. Professional development can support individuals in this stage as they disclose an impending exit and pursue a new network. By identifying the root causes of their workplace dissatisfaction, then people may take more active steps to better learn, act, and advocate for themselves. Identification with one’s organizational role may vary between individuals, complicating this process; with that said, “the more self-identity is equated with the role, the more difficult exiting becomes” (Davis & Myers, 2012, p. 197). Whether simple or complicated,
the exiting stage can be supported through professional development as individuals use opportunities to expand their knowledge, evaluate their expectations, and plan their next steps.

Each stage of the assimilation process has the possibility of intersecting with professional development experiences. The assimilation phases would prove particularly useful in addressing the inequities women experience at work. To this end, “socialization does not occur in the clear-cut stages the models imply. Moreover the process is neither rational nor always one way” (Allen 1996, p. 267). Dailey and Browning (2014) specified, perhaps most importantly, the fact that because “talk constitutes organizational reality, our perspective is that organization’s emerge through communication” (p. 23). Professional development can provide spaces for women to work through their professional identities to construct and evaluate their identities and workplace experiences. The ways in which women communicate their experiences from work and professional development sessions can serve as a guiding force in this project. With the goal of gaining greater insight into women’s experiences at work, this study examined the following three research questions:

**RQ1:** Why are or aren’t women technology professionals participating in professional development?

**RQ2:** How do women technology professionals discursively construct their professional development experiences?

**RQ3:** How has professional development mitigated or contributed to women technology professionals’ discursive and material experiences of gender inequity in their workplace?
Chapter 3: Methods

In order to explore the answers to the proposed research questions, a case study methodology was appropriate. Through this approach, the process of changing workplace inequity could begin to be addressed in organizational settings that offered professional development for women. Formal women’s professional development associations and organizations created an environment centered on women’s skill development. Women engaging in professional development were likely to share particular experiences and learn skills to directly address the gendered challenges in their occupational lives. Thus, a setting separate from an individual’s employing organization was able to offer a safe space for professional women to openly and honestly discuss gendered issues present in their careers.

Case study research has allowed for researchers to analyze phenomena within a bounded system, by collecting and critiquing various types of data (Creswell, 2007). This methodological approach could be conducted in several ways. First, a researcher could choose to conduct an intrinsic case study, which would focus on the case itself (Creswell, 2007). Second, a researcher might select a collective case study, which would focus on a particular issue or concern through the use of multiple cases (Creswell, 2007). Or third, a researcher might opt to conduct an instrumental case study, which would focus on an issue or concern through the use of a single case. Because this project was interested in workplace inequities for women, an instrumental case study served as an appropriate methodology.

By organizing this project around the one particular case, the researcher was able to “orient to complexities connecting ordinary practice in natural habitats to the abstractions and concerns of diverse academic disciplines” (Stake, 2000, p. 440). More specifically, conducting this project as an instrumental case study allowed for insight about an individual issue and
provided room to refigure or reaffirm generalizations (Stake, 2000). An intrinsic case study, focused on understanding one case because of its uniqueness (Stake, 2000), would limit the realm of this project; because workplace inequities have historically existed in nearly every organization therefore there was nothing special about these themes in a particular organization, as an intrinsic case study might suggest. A collective case study should be used to study the full scope of workplace inequity issues, however the scale of this project did not permit such a method. Instrumental case study research served as a strong asset to this project; it allowed for immense detail about a scene to elevate scholarly discourse, sparking new conversations about other situations in which these topics may be relevant.

**Organizational Site of Analysis**

To specifically examine these issues, this project focused on the TechWomen organization (pseudonym). TechWomen was chosen based on the opportunity for the researcher to learn about experiences of professional development in relation to issues of women’s workplace inequity, which were particularly likely to happen in a male-dominated industry, like technology. According to the National Center for Women and Information Technology (2017), 26% of the computing occupations in the U.S. workforce and 20% of Fortune 100 Chief Information Officers (CIO) positions were held by women in 2016. While 57% of Bachelor’s degree recipients were women in 2015, only 18% of Computer and Information Science Bachelor’s recipients and 16% of Computer Science Bachelor’s recipients were women during that same year (NCWIT, 2017).

According to TechWomen’s website and mission, this group believed in the power of their grassroots work as developers, innovators, and thought leaders to help women in the technology community. Based in a Midwestern metropolitan area, this organization invited
members to join in membership and leadership opportunities, mentor-protégé relationships, and a variety of technology-driven events. TechWomen aimed for women to connect, collaborate, and mentor others within the technology fields, and did so since its inception in early 2013. More than anything, TechWomen worked to increase the number of women working in the technology industry.

TechWomen’s leadership team of 39 individuals facilitated a variety of technology-based events; from hosting sessions to talk about the tech industry to software coding workshops for new coders and/or parent-daughter duos, this group hoped to start more conversations about technology in spaces specifically welcoming women. TechWomen prided itself on teaching others through a community of women involved in the technology industry. To do so, for example, TechWomen involved approximately 43 mentors over the course of 2017’s Wine and Web event series as a means of helping approximately 210 attendees, in that same time. Many mentors and attendees participated in multiple Wine and Web programs throughout the year. They welcomed help from metro area organizations through free venue usage, cross promotion, program transportation, and more. This group engaged mentors and attendees from a variety of organizations and roles; the diverse set of industries and jobs represented allowed for TechWomen’s impact to be far reaching within the metro area community and subsequently provided unique lived experiences for this study’s analysis. Moreover, individuals learned about TechWomen through their own personal and professional networks, as well as via the Internet; women were drawn to TechWomen because of the unique niche that it addressed within the metro area’s technology community. Again, because this organization was for women, developed specifically in a career field traditionally dominated by men, this case study was able
to highlight the way women’s professional development experiences interacted with gendered inequities and dominant discourses in the workplace in a nuanced way.

The researcher began by establishing a working relationship with leaders at TechWomen in order to gain access to the organization. The researcher reached out to TechWomen’s leadership via e-mail and provided a brief overview of the project, before requesting a face-to-face meeting. During this meeting, the researcher provided a letter of personal introduction (Appendix A), an executive summary of the project (Appendix B), a sample approval letter (Appendix C), and sample recruitment materials (Appendix D) to TechWomen leadership; in this conversation, the researcher offered the study’s results, as well as volunteer work, to the organization in exchange for their access, participation, and cooperation. The researcher then acquired an approval letter from TechWomen granting access to the organization for the purpose of the study, which was submitted to the institutional review board (IRB). Throughout the interview process, the researcher provided each participant with a participant consent form (Appendix E), a demographic survey (Appendix F), and used an interview protocol (Appendix G); interview recordings were submitted to a third party transcription company that completed a transcriber confidentiality agreement (Appendix H). For observations, the researcher shared an oral consent statement (Appendix I) at the beginning of each meeting or event.

Data Collection

After receiving approval for organizational access, the researcher used semi-structured interviews, document/artifact compilation, and participant observation to collect data. Participant observation allowed for the organization’s mission and processes to be examined from first-hand experience. Furthermore, its niche in the local technology community was explored. As an outsider, the researcher “will notice things that have become routine to the participants
themselves, things that may lead to understanding the context” (Merriam & Tisdell, 2016, p. 139); this held true in the current case study as the researcher worked as a participant observer. Participant observation allowed for the researcher to examine TechWomen’s specific role in the professional development schema of women in technology. Semi-structured interviews allowed for individuals to reflect and share more directly on their workplace experiences, reasons for joining TechWomen, and their plans moving forward. Participants chose the time and location of their interview in hopes of facilitating comfort, convenience, and open communication in this process. Interviews were audio-recorded, transcribed, and reconciled; confidentiality was maintained by the use of pseudonyms. During data collection, recruitment efforts sought out diversity among members of the organization; that said, the bounded nature of a case study influenced who was recruited since involvement with TechWomen was criteria for participation.

Semi-structured interviews with 19 participants provided the researcher with specific, personal details about each participant’s experiences in the workplace, with gendered workplace inequity, and about their decision to join TechWomen. Each participant had the opportunity to self-select a pseudonym; individuals that did not self-select were assigned a pseudonym prior to data analysis. The researcher conducted these nineteen interviews with various members of TechWomen from February 10 through March 15, 2018. Interviews ran between 45-90 minutes with an average of 60 minutes, and resulted in 369 pages of single-spaced transcripts. Recruitment obtained volunteers from the organization’s leadership team, mentors, mentees, and general members alike, as they were able to talk about their time in the technology industry and with TechWomen. Recruitment did not restrict participation based on the amount of job experience, age, race/ethnicity, or education. Interviews explored professional and workplace experiences probing disclosures regarding workplace inequity and gender during interviews.
This study’s participants included eighteen females and one male, not surprising as this was a professional development organization targeted at women. They ranged from 25 to 54 years old, with an average age of 35 years old. Of the interview participants, 14 self-identified as White/Caucasian, two participants identified as White/Caucasian and Hispanic/Latina, one identified as Hispanic/Latina, one identified as Black/African-American, and one identified as White/Caucasian and Asian. Moreover, one participant had some college experience, 14 held Bachelor’s degrees, and four held Master’s degrees. Their specific jobs included software developers, engineering or information managers, and freelancers, among other roles. Additionally, participants’ level of experience spanned from 6 weeks to 23 years in the technology industry with an average of 8.5 years.

The secondary method of data collection was participant observation. During participant observation, the researcher observed the general communication and organizational experiences of women in TechWomen. The ways in which these conversations were framed and facilitated highlighted workplace inequities as well as incorporated TechWomen as a pathway to mitigate such inequities. Participant observations occurred in six different instances over the course of two months, during TechWomen’s scheduled meetings and events; meetings and events varied in time length from 1-5 hours. Two of these observations occurred at TechWomen’s Wine & Web (pseudonym) event; this is an evening of adult beverages and programming for adult women only. A third observation occurred for TechWomen’s Talk About Tech (pseudonym) event; this particular night was focused on women in technology, in celebration of International Women’s Day. The remaining three observations were during meetings for the TechWomen’ leadership team and event committees. The researcher attended these various sessions during February and March 2018, resulting in 16 hours of observation and 13 pages of single-spaced field notes. The
use of these meetings and events allowed the researcher to build credibility and trust with TechWomen’s members, as well as get them familiar with and invested in the purpose of this study (Creswell, 2007). Field notes were taken throughout each participant observation session; notes were made during these sessions, when possible, and immediately following the conclusion of the meeting/event. Importantly, field notes helped to track details, list quotes accurately, manage overwhelming experiences, and specify broad themes through explicit interactions (Creswell, 2007).

Additionally, artifacts were analyzed to contextualize TechWomen’s work, interviewees’ reflections, and field note observations. The TechWomen website and blog were primarily used in this process; 13 website pages and 20 blog pages were included. These sites accentuated the overall culture of the group, and reinforced the researcher observations and interview data about the organization. Beyond these artifacts, the researcher considered the physical feminine décor that TechWomen routinely brought to their events. These material displays of femininity highlighted the women-focused nature of the organization.

Data Analysis

The data analysis process began with data management. The researcher first organized all collected data. Transcriptions and field notes were chronologically sorted. Field notes described the organization and its setting, both in a professional context and the geographical area. Focusing on the case’s nature, historical background, political and economic contexts, and physical setting (Stake, 2000) allowed the researcher to thoroughly critique the scope of the organization, the participants’ experiences, and the social problems involved. The researcher started exploring the data by reading the transcripts and field notes multiple times and writing potential open codes in the margins of the data (Creswell, 2007). The researcher used salient
details and/or reflection, here, to build preliminary codes. Writing analytic memos then helped
the researcher to transition from fully describing and classifying to interpreting the data
(Creswell, 2007). Writing memos facilitated further data reduction from codes to categories; the
researcher completed 23 pages of single-spaced memos. Then, interpretation occurred when the
researcher examined individual categories to assess meaning. Memoing about interpretation
combined categories and revealed patterns and larger recurring themes. When possible, in vivo
codes, or the exact words from participants (Creswell, 2007), were used to more directly
represent the data.

Themes account for the stories, the actions and interactions, and the situations from
which participants choose to share their experiences (Creswell, 2007). Generally, analysis
provided the chance to learn from the given case and apply the information to a separate
population of cases. NVivo 10 software was used to sort, code, and categorize data in this
process. Data collection occurred over an approximate two-month span and analysis was
conducted concurrently and thereafter. Immersion into the data, both collection and analysis,
challenged the researcher to “absorb and marinate in the data, jotting down reflections and
hunches, but reserving judgment” (Tracy, 2013, p. 188).

To validate this project, the researcher triangulated several forms data (interviews and
participant observation). Using various data forms helped to clarify meaning and verify the
replicability potential of observations and interpretations (Stake, 2000). Additionally, peer
reviews throughout analysis provided the researcher with an external check of the data. Creswell
(2007) suggests that evaluation of the validity of case study research can be facilitated by
addressing the following key points. First, the researcher must ask about the identification of the
case being examined (Creswell, 2007); details must be clear to others about which bounded case
is being examined for the scope of the study. Second, the researcher must consider whether the case is being used because it offers insight to a particular research issue or because the case itself merits research of its own (Creswell, 2007). Third, the researcher must offer a clear description of the case; ample detail should be provided in order to fully understand the case (Creswell, 2007). Fourth, the researcher must define clear themes from the case; the meaningful information that emerges from research should be well organized and supported (Creswell, 2007). Fifth, the researcher must outline any assertions made on the basis of the case; this information should be explicit for outsiders to understand (Creswell, 2007). Finally, the researcher must openly consider his/her position within the study; the researcher should be reflexive on how his/her experiences and participation may have influenced the development and findings of the study (Creswell, 2007). The major findings from analysis are discussed in the chapters that follow.

Additionally, these findings were prepared and shared with TechWomen through an executive summary and a formal presentation. As Tracy (2013) noted, “qualitative researchers must go beyond dropping their analyses in participants’ ‘in-boxes;’ they should also consider offering recommendations about how the information may be fruitfully understood and applied” (p. 301). Thus, the present study contributes to scholarly conversations about professional development, gender, and organizational assimilation, however must also be discussed in non-academic spheres in order to spark meaningful change towards addressing workplace inequities.
Chapter 4: Findings

Before delving into the findings from this TechWomen case study, the larger context of the participants’ experiences is described. Then, the results of the analysis follow addressing the three major themes that emerged in the analysis for this study; more specifically, the first and third themes are made up of smaller sub-categories that combined and led to larger emergent themes.

Case Study Context

There are two aspects about the context of this case study that are noteworthy. First, almost all of the professional development described by participants was external to their workplaces. Participants shared that professional development was an unspoken expectation in their workplace cultures and that their organizations generally supported these efforts (funding, PTO, etc.). Due to the external nature of professional development, individuals were forced to find opportunities that work for them. This leads to a second important characteristic of this case study: women in the TechWomen community were proactive. Participants expressed a desire to improve their skills, connect with others, and spark meaningful change in the technology industry. Moreover, they were aware of the challenges women faced in this male-dominated industry, and welcomed conversations about how to address this inequity.

Three themes emerged from the case study data. First, participants struggled to identify sexism, which often resulted in commentary that would resist and/or deny that it was an issue. Through sexist bad behavior, issues with appearance, and speech that sidesteps the gendered problem, sexism’s impact on participants’ workplace experiences was undeniable. Second, participants shared their efforts to prove others wrong and the work that it took to do so. The tension between underestimating women and their resulting overcompensation demonstrated the
continuous challenges they face in showing their worth. And third, the TechWomen community proved to fulfill participants’ expectations about what professional development should be. TechWomen worked to provide occupational support and meaningful connections with other women, as a way to increase knowledge and confidence in one’s role. The following sections expand on and provide examples for each of these three major themes.

**Identifying, Resisting, and Denying Sexism**

While women seemed acutely aware of their presence as women in a male-dominated industry, they struggled with how and when to accept gender as a component of their experiences. The issues that these individuals encountered in the workplace varied in terms of severity, communication, and general time and place, yet were consistently problematic. The ways in which women identified, processed, resisted, and/or denied sexist behaviors were dominant patterns that emerged in the data and important experiences analyzed from their organizational lives; the following three sub-categories recognize such nuances.

**Sexist bad behavior.** A myriad of sexist behaviors can ensue in the workplace. In this study, bad behaviors seemed to start with defensive, aggressive, or otherwise inappropriate attitudes towards women. This commentary accentuated gender differences, instead of a focus on women’s actual work. Derogatory statements, “mansplaining,” and otherwise tasteless comments seemed to stem from an interpreted threat to men from capable women. For example, Carla, a 26-year old in technology marketing, highlighted inappropriate behavior when she described her efforts to contribute at work:

I just felt like there was a lot of yeah [pause] aggression every time I spoke, or every time I wanted to contribute something. Yeah, I felt like because I was a woman, I was not getting the treatment that I deserved. Anyway, and then in a previous, in another software
company that I interned at, there were some women that would hang out in this office and just chat. All the guys called it the sorority house, and I thought that that was very rude because it was by no means like a compliment. It was a derogatory way to refer to all the women in that company.

Carla first identified the “aggression” she faced when speaking followed by a gendered rationale for her coworkers’ statements. Her identity as a woman, therefore, resulted in unequal treatment from male colleagues. Then, her description of the “sorority house” label and comments emphasized that these actions were not unique to Carla, but rather systematic as “a derogatory way to refer to all the women in that company.” This account revealed the way communication was used to stereotype and stigmatize women in the workplace. Similarly, a reflection from Megan, a 25-year old software engineer, built on this premise of bad behavior when she stated:

Um, um I don’t know if it is because I’m a lady, these differences that I’ve had with that person, but just my opinion was undermined, and like I was being told that I was making decisions for the team when that wasn’t my place, and that was not what I was doing. Um, uh I was uh reiterating the outcome of a meeting, and was told that I was making decisions for the team, and did we have buy-in from everybody. I was like, you were there.

As Megan reflected on her male colleague’s presence in the meeting, “I was like, you were there,” it became clear that the colleague’s actions were different when working with Megan alone than in a larger group. She, too, struggled to fully believe that her gender was at the center of his actions but did question whether gender was a factor when she said, “I don’t know if it is because I’m a lady.” Yet, she clearly distinguished that “my opinion was undermined.” Megan, like Carla, identified that her opinion was questioned and dismissed, before incorporating gender
into her rationale. This demonstrated Tannen’s (1994) research regarding “report” versus “rapport” gender dynamics in communication. Megan was not permitted to report and reiterate the meeting’s takeaways, for no other apparent reason than her gender. As a woman, she was not granted the same trust, as her male colleagues, to simply report the information likely because reporting information has been socially constructed as a masculine form of communication. This is problematic as Megan’s gender affected others’ opinions about her communication, and has the potential to negatively affect other working interactions moving forward. By bringing gender into these rationalizations, both demonstrated that there were not likely other reasonable excuses for the bad behavior from these coworkers.

As Megan and Carla worked to make sense of their colleagues’ reactions, another concept related to sexist bad behavior became an important component for analysis. The concept of “mansplaining,” arguably another bad behavior, arose in Fiona’s experiences. As defined by Merriam Webster Dictionary (2018), “mansplaining” means “to explain something to a woman in a condescending way that assumes she has no knowledge about the topic.” To this end, a woman’s knowledge and ability is undermined solely due to her gender; this term was directly shared by Fiona. Fiona, a 33-year old information manager, stated, “mansplaining is a thing, so you’ll see that in meetings and things like that at work. You know it’s like, oh, yep, that’s exactly what I just said dude.” Fiona’s acknowledgment of “mansplaining” comes directly from her work, “in meetings and things like that.” The ways in which Fiona was talked down to and experienced “mansplaining,” reemphasized how sexist bad behavior repeatedly placed women in inferior roles.

Melissa’s description of being asked to take notes during meetings is, yet, another example of misaligned attitudes at work. Melissa, a 38-year old freelance web developer, shared:
I would say definitely in some of those meetings in my past jobs, where you’re the only woman in there and they expect you to take notes, they expect you not to, they act, they have a surprised look on their face when you have, you know, a question or a comment in the meeting that is extremely intelligent and well formed.

By identifying herself as “the only woman” and then sharing the expectation that “you take notes,” Melissa acknowledged the problematic assumptions of the men in those spaces; this comes as note-taking and secretarial work has long been gendered as feminine task, placing women in an inferior position to that of men in power. Her description seemingly reinforced men’s adherence to gender roles, a bad behavior that was harmful to women at work. Women were uncomfortable with and resistant of men’s defensive, aggressive, dismissive, and/or otherwise gendered attitudes that constructed women as inferior. Perhaps more subtle than others, these experiences started to frame the gendered experiences of women in their workplaces. While bad behavior permeated through various situations and commentary, sexism regarding appearance could be easily identified by participants.

**Sexism regarding appearance.** One dominant theme that women were able to speak about more directly was appearance. Women quickly identified problematic situations when asked specifically about appearance, and were able to give more explicit examples. Participants in this study were increasingly clear about who they felt comfortable having comment on their appearance and when they felt this was acceptable. Women received commentary from men and other women differently. For example, June, a 30-year old web developer, stated:

[Pause] yeah. I was really big into high heels in my early twenties. And there were a lot of sexual comments that would get made about that. And I was like, “Fuck off. I like shoes. Shoes are my thing, I’m not here to please you.” Um and being a woman with
short hair, of course you get the guys who are like, “Why don’t you grow your hair out?”
And I’m like, “Why is it your fucking business?”

June’s experience, first and foremost, recognized the “sexual” nature of these comments. Because of these insinuations, June felt the need to reclaim herself and her role by stating “I’m not here to please you.” In doing this, June accentuated that her purpose there was for work and not as a female muse. Second, June recognized that “shoes are my thing.” Through this statement, she attempted to restore autonomy in her personal image and embraced a commonplace feminine trope; this was a challenge that many women faced. Due to the countless ways in which a person could display their femininity, women were more easily marked by gender. Finally, June’s use of profanity demonstrated her emotional response to the situation. She was frustrated and angry that her gender elicited unwarranted commentary. This frustration and the subsequent double standards were also expressed by Fiona when she described:

As a woman, if you roll in and it’s obvious that you [laughed] haven’t put on makeup, or that you haven’t done your hair that day, or whatever. Everyone’s like hey, are you okay? Like you look stressed. Versus, I don’t feel like men get that as much. I feel like they can kind of ... You know um ... They don’t generally have to do as much as women to get ready, so they can have a little more autonomy in their appearance…. And then on the positive side of that, I feel like, as a woman, when I look nice, I get compliments from other female coworkers. Like, oh that’s cute, or you look nice today, or what have you. Fiona expressed frustration about how expectations differed for women’s and men’s appearances. She specifically referenced the judgment that comes with these expectations, noting that people asked “are you okay?” and determined “you look stressed.” Women lose their autonomy in these situations, as their appearance becomes a factor measured by social norms.
Fiona explicitly recognized that “I don’t feel like men get that as much.” These blurred lines demonstrated that men held a more narrow view of acceptable displays of femininity and have more autonomy themselves, whereas women viewed these displays on a much larger continuum and yet are limited greatly by their colleagues.

Also key to Fiona’s reflection was her recognition of compliments from “other female coworkers.” She identified these comments as “on the positive side.” This distinction demonstrated that commentary from men was not viewed as appropriate or acceptable, however commentary from women was welcomed. Feedback from other women was likely to be framed as more platonic and supportive. While women appear to be more comfortable with comments from other women, they also seemed to be more comfortable with compliments at formal events when everyone was dressed formally. Insinuations about gender or expectations would be presumably less because the situation merits a more concerted effort from all attendees. Laura, a 36-year old Chief Technology Officer, referenced this when she described:

The only time anybody commented on my appearance was when it was appropriate. We all got very dressed up for award banquet, and you know when people are very dressed up it's a professional thing to do to say, “You look nice tonight.” That’s the extent of it and that went both ways. So no, I’ve really not had that issue. Uh I’m trying to think if I have in previous work. [Pause] I have, for sure. With previous clients that I’ve worked with, I have. Never um, never to the point where I felt unsafe or [pause] anything, but just a little too much. A little too long of a stare, a little too much of a comment, um you know that ... that just slightly over the line, uncomfortable level.

Laura’s experience noted a difference between an “award banquet” and “in previous work.” She felt that her appearance drew “a little too long of a stare” and “a little too much of a comment”
during work with “previous clients,” but felt comfortable accepting compliments at the more formal event. This event seemed to raise the bar for dress code for everyone and thus Laura’s gender was not marked. The overarching problem with gender and appearance was how it unnecessarily complicated workplace experiences and relationships.

Irrelevant to the tasks being done, gendered appearance influenced interactions and sparked negative emotions for women at work. Nicole, a 37-year old quality assurance software engineer, reiterated frustration and confusion when sharing:

At my previous place, yeah, I always had to be careful with what I was wearing, because I knew somebody was going to make comments about it. Good, bad, or indifferent. If I wore a suit, it was, “Oh, well do you have a date?” Or “Do you have a job interview? Why do you look nice?” Or um and you’re a girl, so I’m sure you know this, I don’t wash my hair every day…The days I wash my hair, they’d be like, “Oh your hair, it’s it’s it’s, you actually did something with it today.” I’m like okay - Am I offended? I don’t know if I’m offended, I feel like I should be offended. You didn’t say that to [this coworker] or [another coworker], why would you say it to me [laughed]?

Nicole acknowledged that her appearance was a factor in her workplace experiences when she stated, “I always had to be careful with what I was wearing.” This comment brought gender displays to the forefront of Nicole’s organizational life and revealed that Nicole expended energy thinking about what she would wear to work. Yet, even with its prevalence, she’s unclear about how appearance actually affected her and her interactions; this can be seen in her statement “I don’t know if I’m offended” and “I feel like I should be offended.” Nicole had difficulty making sense of the commentary, her gender, and her work, but was uncomfortable with the situation and how to negotiate it. She worked to resist this sexism by questioning if it was real. Then, she
finished her statement with laughter that further accentuated her possible denial and nerves about the situation.

Participants’ experiences suggested that men and women routinely have different perspectives about what is and is not okay regarding gender in the workplace. Because they were seemingly never on the same page, then issues arose regarding appearance, work, and general social interactions. With women as one marginalized group, in society generally and in tech specifically, they were more easily subjected to inappropriate comments, actions, and treatment from their male coworkers, which also required a burden of energy and time to continually manage.

**Speech sidestepping sexism.** Gender continued to cause individuals discomfort beyond the bounds of appearance. While women expressed feeling uneasy and anxious when gender seemingly became a component of their interactions, they struggled to name instances of sexism in the workplace and instead recognized their feelings about this situation. To this end, the majority of participants would respond to the question, “tell me about a time that you experienced sexism at work” with a statement that they had not had such an experience or would downplay the severity of the issue. In sidestepping sexism, participants often drew comparisons between their workplaces and TechWomen. For example, when asked if she thought gender influenced her interactions at TechWomen, Melissa reverted back to the negative feeling of her workplace when she stated:

> It’s just kind of like intuition thing. You kind of feel like that’s what’s going on. It’s not...
> Nothing blatantly has happened to me to, like, say this is for certain what’s happening, it’s just like an intuition thing of like reading people. You know.
Melissa recognized the “intuition thing” as the signal of sexism in the workplace. She acknowledged that there was a problem, likely related to her gender, and her disappointed and somber tone suggested her negative reaction to it. Her statement, “you kind of feel like that’s what’s going on,” suggested this recognition. First, this statement demonstrated that Melissa knew what was happening based on prior experience and/or her socialization as a woman. Second, this statement underscored a sense of denial about the situation; Melissa was hesitant to name the issue. By naming the problem, then she would have to deal with it and dealing with an issue such as sexism could result in difficult and complicated next steps (HR paperwork, social ramifications, etc.). Thus, Melissa’s hesitancy represented a larger denial or hope that sexism was not an issue at work. She was not the only participant who used reluctance and uncertainty as a form of denial. This, too, was seen in Sarah’s reflection of her interactions with a new boss. When asked about a time she felt successful despite her gender, Sarah, a 54-year old software developer, stated:

[O]ne person had jokingly said, this guy, this new boss had just gone through a divorce and that’s why he decided to take this new job, left [nearby metro area] and moved to [another metro area]. And I remember somebody saying, “I wonder if you remind him of his ex-wife or something [laughed] because he sure seemed to have it in for you from like first minute, you know.” So I don’t know [laughed]. That was the theory, but I have no idea.

Sarah’s gender was implicitly acknowledged through her coworker’s comparison, “I wonder if you remind him of his ex-wife.” Sarah’s credibility and capabilities were dismissed strictly due to the potential likeliness in appearance of her boss’s ex-wife. The negative connotations of divorce and the typical animosity towards one’s ex-partner framed this issue, and stripped Sarah
of her work merit. Moreover, sexist behaviors were perpetuated by two individuals in this case: the boss and the coworker. The boss, as apparently viewed by others, treated Sarah unfairly and it was interpreted as an act related to her gender; then, the coworker reinforced that Sarah’s gender and appearance must be part of the reason behind such treatment. Then, though distinct and overt to outsiders, Sarah struggled to view this experience as sexism in the workplace. Sarah stated, “I don’t know” and “I have no idea.” Her laughter, too, conveyed her nerves or embarrassment about the situation. This emotional response reiterated her apprehension about the situation, even after the fact. Both of her comments and her laughter stressed her hesitancy to discursively name this issue and, like Melissa, she avoided explicitly identifying the larger issue.

Lucy’s experience, like Sarah’s, seemingly used gender as justification for workplace interactions and relationships. Lucy, a 30-year old software developer, described that while her male colleagues (newcomers and veterans in the organization) would receive an invitation to lunch, she never did. This happened when Lucy was asked if she thought her gender influenced her TechWomen interactions and, like Melissa, she drew a comparison back to a negative work experience when she described:

That one example I just gave, that was the only thing about that business that was weird.

I’m not even sure it was because of my gender. It could have been something else. Maybe I just somehow indicated I didn’t like to go to those [lunches] accidentally.

Lucy was reluctant to define this as sexism when she suggested, “I’m not even sure it was because of my gender.” Her statements, “it could have been something else” and “maybe I just somehow indicated I didn’t like to go to those [lunches]” demonstrated her efforts to emphasize an alternative explanation, as if she was hoping that surely her gender was not the problem. Lucy’s speech attempted to sidestep gender and sexism, yet the workplace sexism emerged as
commonplace and systematic in this exemplar. Perhaps more disappointing though, was her ownership for the exclusion. Lucy’s comment about “accidentally” indicating a disinterest, stressed that she felt the situation was her fault. She wanted to be invited to lunch, but was systematically left out likely because of her gender.

Uncertainty and reluctance about naming sexism in the workplace continued as Adelyn, a 41-year old software architect, described overtly inappropriate behavior:

[Long pause] I don’t feel like there’s anything overt. I feel that once again, at [previous employer] I felt I was fairly lucky in terms of professionally nothing was, women weren’t treated differently in that way. There was a VP there who was really handsy. But he treated everybody that way, including the guys. I think he would always hug them and give them shoulder rubs as well as the women. So it was really odd, but he was kind of handsy. I hate to cross him. He could do damage, but I think he could do damage to men as well.

Adelyn was clear that this “VP” was acting inappropriately, yet she made repeated efforts to discursively rationalize these behaviors as not gendered. Her reflection, “I don’t feel like there's anything overt,” reiterated a reluctance to name inappropriate workplace behavior. Her statement, “I think he could do damage to men as well,” demonstrated her efforts to remove gender. Her use of the term “think,” in relation to men, seemed to instead communicate a sense of hope because she was incredibly clear in stating “I hate to cross him” when reflecting on the potential social costs for herself. Adelyn was confident in describing how these actions made her feel, which she emphasized the impact of these behaviors on her and her work.

This sense of denial seemed to stem from a place of uncertainty, reluctance, and perhaps hope that their womanhood was not a component of workplace interactions. Perhaps as an
additional mechanism of coping, women tried to discursively rationalize sexism by reframing the intent of the person perpetrating the act. For example, Anna, a 31-year old software developer, stated:

Any sexism that I would experience was very I think subconscious on their end. Where there would be... And I would be able to see it, but I don’t know that that person would understand or even other people would understand that person was being sexist.

Anna’s commentary, while also hesitant and uncertain in naming sexist behaviors, removed the responsibility of the act. In saying that she thought it was “subconscious on their end,” Anna avoided acknowledging any intent behind the problem. This lessens the impact of the sexist behavior by discursively moving the blame away from the perpetrator.

Denial took shape through participants’ hesitancy to name negatively gendered workplace behavior and uncertainty about sexism in the workplace. Women acknowledged feeling uncomfortable by it, yet avoided tackling this issue head on. These uneasy, anxious, embarrassed, and questioning feelings emphasized the impact of these interactions and relationships on women at work. As long as this sexism systematically continues to be present, women will struggle to fully succeed in their organizations.

**Underestimation and Overcompensation**

In sharing their experiences, many study participants reflected on the effort that they put into their roles particularly because of their gender. The underestimation of women and their capabilities is a concept common in society, and was reinforced throughout this study. Women in this study were able to identify when they were doubted, questioned, and otherwise not given the
same trust as men in their organizations. Consequently, the overcompensation put forth by these women accentuated society’s gendered double standards. Women in this study were able to acknowledge both when they made conscious choices to put forth additional efforts and shared about when their efforts were exploited by their employers. Analysis about this underestimation and overcompensation work dynamic expands on women’s workplace experiences.

On an individual level, participants recognized the ways in which they were underestimated. According to Merriam-Webster Dictionary (2018), to underestimate means to “place too low a value on” someone or something. This is applicable in the workplace as individuals perceived women to be less valuable, less capable, and so on, using gender as the justification rather than that woman’s credentials. Nicole spoke to this idea when sharing:

My brother-in-law, God bless him, is a mechanical engineer, and he still doesn’t think I’m an engineer for real [laughed]. Even though my diploma says computer software engineer, I’m still not an engineer. I feel like it’s probably because I’m a girl [laughed].

Before ever getting to a task, Nicole was underestimated about her ability to work in STEM. She explicitly offered that “it’s probably because I’m a girl.” Nicole knew that she was capable of the work, yet she felt as if she was discredited simply because of her gender. Though laughing it off, this underestimation and justification was problematic, and not unique to Nicole.

Participants experienced doubt from others during various points at work, but seemed to derive motivation, and ultimately satisfaction, each time they could prove their doubters wrong. This was a process that began quickly; Lucy described feeling underestimated due to her gender early in the job application process. She explained:

I think I read a report once talk about how in resumes, studies show that just having a female name on your resume, even though it’s the same resume, if they just make the
name female at the top, it makes you less likely to be chosen as a candidate…. It’s not that you can’t succeed with them as a woman. It’s just that naturally speaking, they tend to gravitate towards more good old boys type personalities. And ya know as a lady, that’s hard to compete with. So every time I get my resume in, and someone calls me in for an interview, I know I at least made it that far. That makes me feel good, because I made it past that first barrier.

Lucy accentuated that gender was an additional challenge in the application process for jobs in technology with her statement that “as a lady, that’s hard to compete;” men would not face this same initial challenge. Lucy acknowledged moving “past the first barrier,” and her word choice highlighted that the underestimation would presumably continue simply because she had a female name at the top of her resume. Her satisfaction about her success was powerful; moving beyond these social stereotypes (capability based solely on gender) was a fulfilling step for Lucy and many other participants. Likewise, Laura detailed having been underestimated in her occupation when she shared:

A lot of times it was when I would be introduced to a group of people for the first time as, I’m the person that’s going to build this software for you. And most people would be just fine with that but I would, I would spot a couple skeptics. I would be able to tell by the way they asked questions or their attitude that they didn’t think I was capable of doing any of that. And what other reason would that be than I’m a female, because I’m sure if I went in there and was a male and maybe you know dressed a certain way and talked a certain way, maybe if I looked like a geek that they’d seen on a movie, then they would believe that I could wizardry…. So they think that the person that’s going to build it needs to look like one of those geeks in the movies right? …. So a lot of times, there’s
skepticism that I feel very strongly. In the beginning they just look at me and think, “there’s no way you know how to do this stuff.” And I honestly enjoy the challenge of proving someone like that wrong, and it usually happens fairly quickly [laughed]. Once you build something for them, they can’t really argue that you can build it, so it’s pretty easy to uh, pretty easy to get over that barrier.

Laura quickly identified the doubters of a group in order to adapt, empathize, and work with others. She went on to express how not looking “like a geek that they’d seen on a movie” discredited her in the eyes of others. Her physical appearance became the discrediting factor in her ability to do her job. Ultimately though, doing the “wizardry” and again getting “over that barrier” was a positive step for Laura in addressing those “couple skeptics.” Laura’s story demonstrated that while she was underestimated based on her gender, she gained satisfaction in proving others wrong about what she was actually capable of doing.

When asked about gender discrimination, Lucy recognized a pattern of being underestimated that started in childhood and followed her through college. As a child Lucy “wasn’t allowed in the tree house because I wasn’t a boy.” She then described starting her overcompensating efforts by telling them “I’m coming up this tree anyway [laughed].” Lucy moved beyond boys’ doubts as a young girl and demonstrated her abilities, a skill she described using again later in her college classes. Lucy stated:

Usually it would be a guy in my class who would assume I don't know what I'm doing, because I'm a girl. He would come over and be like, “Oh, yeah. I can help you with this,” and… I'm like, “Guy, back off. I know what I'm doing. I know how to do this as well as the dude sitting on the other side of you, or you yourself.” If it happened once, I never
thought anything of it, because you never know. But if I noticed a pattern, that's another thing. “Okay. This person doesn't know that women are capable.”

Lucy’s reflection emphasized that while she was capable, others doubted it. This instance of mansplaining and underestimation was addressed by her confidence and skill. Frustrated by the problem, Lucy described that “if I notice a pattern, that’s another thing.” It is the repetitive nature of underestimation and gender inequity that was particularly frustrating and problematic for women; they were continually put down. Yet, as seen in this exemplar from Lucy, addressing the behavior is important.

Facing and disproving underestimation takes a considerable amount of work; thus women may overcompensate in their roles. Overcompensation, as defined by Merriam-Webster Dictionary (2018), is an “excessive reaction to a feeling of inferiority, guilt, or inadequacy leading to an exaggerated attempt to overcome that feeling.” For women in particular, these additional actions are a method of demonstrating their worth and moving beyond others’ doubts due to their gender. Fiona shared this sentiment when describing her work as the only woman in her organization when she stated:

I think it just felt like it was a little bit harder to be taken seriously and that you had to work a lot harder to get [pause] you’ll hear the expression, work twice as hard to get half as much. And I wouldn’t say it was that bad, but there was a disparity there. I think that was industry related.

Fiona alluded to her gender inferiority in her statement that it was “harder to be taken seriously;” then, she admitted to working to overcompensate as a means of addressing that “disparity.” Fiona’s reflection highlighted her feelings of underestimation and her concentrated efforts to overcompensate for this gap, meanwhile a sense of denial and confusion lingered. With this
exemplar, Fiona demonstrated a personal choice to overcompensate yet her acknowledgment of how this process was “industry related” recognized the pervasiveness of women’s exploitation. Fiona stated, “it wasn’t bad;” her wavering about this disparity further accentuated the complexity of gender issues at work and ultimately reinforced women’s denial of sexism, as previously mentioned. Morgan, a 31-year old applications developer, also addressed an increase in effort due to having been underestimated when stating: “You put your guard up a little bit because you’re not sure if you’re going to have to work harder to prove yourself to this person than everyone else on your team who’s a man.” Morgan recognized needing to “work harder” because of her gender. She identified that her efforts needed to be better than “everyone else on your team who’s a man” in order to show her worth as a woman. Prevalent in Morgan’s account, too, is a personal recognition of how she may overcompensate due to the exploitative nature of the male-dominated technology industry.

Overcompensating was also addressed by Nicole as she reflected on the male-dominated nature of her previous employer. She shared:

It didn’t come out until I was leaving. I was the highest producer of work on the team… But I was the backup for my boss, and I was the backup for all of my team members, and when I finally decided to leave they were like, “I don’t know who we’re gonna find that does all the work that you do.” It’s like oh okay, but I also was the lowest paid on the team as well [laughed].

In addition to her own workload and being the “highest producer of work,” Nicole served as the “backup” for multiple people; Nicole’s overcompensation protected her coworkers and her boss, yet contributed to her own exploitation. Being unaware of these differences in effort before her exit was powerful in demonstrating her socially constructed inferior status, as Nicole did not
know the extent to which she was overcompensating. Then, to find out she was the “lowest paid on the team” stressed her overcompensating efforts and the inequity in her lived experience; she was doing more work and was doing it for less money. This example reinforced the prevalence of the current pay gap in the United States, as mentioned earlier in the literature review of this study. Nicole recognized that she was making less money and did more, not equal, work than her counterparts. Nicole’s reflection demonstrated that her organization explicitly took advantage of her skill and work ethic. While her efforts were commendable, the way in which her coworkers and boss took advantage of her was unacceptable and perpetuated inequity.

Adelyn, too, recognized her efforts to overcompensate yet directly stated that stopping this behavior would be a challenge. She said:

I do feel like I have to put in extra, though. My view is I do feel like most of the women I know are great developers. And I think they have to be, to be equal to men. And that might be putting in extra time… I feel like I am a perfectionist, and I will [pause] it'll be really hard for me to back off. I need to, but I'm aware that it'll be hard to back off. But I also do [pause] I feel like there is an unwritten, implicit thing there.

In her reflection, Adelyn describes herself as a “perfectionist” with a personal desire to overcompensate. Woven throughout her account is a description of the nature of the technology industry and the gender roles pushing her into overcompensation efforts. She describes that many of women she knows are “great developers” but that they “have to be, to be equal to men.” Adelyn’s words accentuated the exploitative nature of the technology industry for women. Adelyn directly defined this feeling as an “unwritten, implicit thing.” The accounts of Adelyn, and others, demonstrate that women are making conscious choices to overcompensate, but are pushed into these decisions by the culture of the technology industry.
Underestimation and overcompensation were complex, interrelated issues for women to manage about their workplaces. Women gained satisfaction from proving others wrong and more insight when they realized they were doing more than enough at work. Whether making personal, conscious decisions to overworking themselves or being exploited by their technology employers, women’s underestimation constructed them as devalued members of the industry while overcompensation attempted to establish them as invaluable members of their organizations. As women identified and worked through some of these gender inequities in the workplace, they then transitioned to recognize and use professional development and a network of other supportive women as methods for improving their workplaces and occupational lives.

**“These are my people.”: TechWomen’s Community and Purpose**

As participants shared their expectations and experiences of professional development, TechWomen seemed to satisfy a variety of needs in order for individuals to process and prepare for their occupational lives. Thus, TechWomen’s professional development was useful because participants could gain a combination of occupational skills and meaningful connections (professional and personal) leading to a sense of individual accomplishment and growth. The benefits of this multi-faceted professional development allowed for women, specifically, to better address the inequities that they encounter at work and to thrive and grow in their careers.

**Occupational skill and support.** First, opportunities to learn were a driving force for individuals entering professional development at TechWomen. Participants consistently articulated that acquiring a new skill or solving technical problems were top priorities for professional development sessions. Murl, a 40-year old software developer, shared this sentiment when she said:
I feel like it’s really important to be constantly learning the new things because that’s how you maintain relevance and employability, is if you’re like willing to learn new stuff and staying on top of what the newest trends are. Murl connected the applicability of professional development to work specifically by stressing that this was a method for how a person can “maintain relevance and employability.” She, like many other participants, wanted for her time in professional development sessions to be useful and relevant in her daily work.

Learning was a form of occupational support when participants explained that they wanted to ask others for solutions to technology problems, advice about workplace issues, and so on. Murl builds on the importance of occupational support when stating:

My friends and stuff like, I can’t really talk to them about my job because it’s really technical. [Pause] and I don’t wanna make them feel inadequate by talking about really high affluent and technical stuff [laughed] that they don’t wanna hear about. So just getting to have those friendships where I can ya know just have conversations about some, like that talk shop with people and have a conversation.

The occupational support received from the TechWomen community was important because Murl was not finding this support in her other relationships (professional or personal). Professional development at TechWomen offered her situations where she could “talk shop” and “have those friendships.” This idea was echoed by June when she shared:

It was just fun to go and talk shop with people um who understood what I did all day; because for a long time in my early career, I was kind of the only person doing technical stuff at my job and so there was nobody to relate to or connect or understand problems I
faced or challenges I overcame. Um and so it was kind of nice to just be around people
who got what I got.

June, too, expressed that support for her specific work was not a component of her existing
relationships because there was “nobody to relate to.” Then, there was a clear shift for June as
she highlighted how occupational support at TechWomen helped her, because “it was kind of
nice to just be around people who got what I got.” TechWomen addressed this desire for
occupational support by facilitating an environment focused on learning and skill development,
through an intimate space that encouraged communication and meaningful connection.

These interactions became even more useful as individuals shared knowledge. Learning
from others provided the chance to support each other, while also advancing one’s own
knowledge. Cooper, a 35-year old female software engineer, recognized this as a distinct goal of
hers. She described:

I typically make a friend or two in class, or at the whatever session it is that I’m at, um
‘cause I like also peer knowledge sharing, to me is a great way for both parties to learn
more, because somebody who’s sitting next to you, learning this stuff with you, might
have a different perspective on it than you do. And so, you should be able to teach other,
and that’ll help strengthen the one. That’ll strengthen you both basically.

This interactive dynamic can benefit everyone involved. As Cooper noted, it was a “different
perspective” that could help to reframe an issue and ultimately “strengthen you both.” It was this
collaboration and connection that participants revealed benefitted individuals during professional
development at TechWomen.

**Building confidence.** The occupational support stemming from TechWomen was not
only useful for technical skills, but also for increasing women’s confidence in doing their jobs.
Participants spoke about how skills and interactions with others pushed them to new successes. Fiona referenced this idea in her description:

I would say that every opportunity that I’ve gotten on my journey to learn to code has been because of [TechWomen]. I went to [their Wine and Web event], and because of [Wine and Web], I heard about the [Girl Programmers] workshop that they did last summer. A two-day workshop where you can build your own blog using [program]. Because of that, I applied for [external program] again, because I had applied the year before and not gotten it. I applied for [external program] again, and got in this time. I do attribute that to the people that I’ve met through [TechWomen] and the networking aspect of being involved in the community.

Fiona attributed “every opportunity” in her software coding journey to her involvement in TechWomen. The impact of this professional development not only boosted her skills, but seemingly increased her confidence to be in the technology space; this was a turning point in Fiona’s story because she “got in this time” and being able to sit at that table was an important next step for her.

Fiona was not the only participant who shared a sense of increased confidence as a result of TechWomen’s occupational support. Murl reiterated how occupational support helped her find new opportunities when she said:

I’m pretty sure that’s why I got offered this job that I have now. So I just got up there and ya know uh learning how to sell yourself and learning how to toot your own horn isn’t something that comes naturally to a lot of people. Well definitely doesn’t come naturally to me, and so they really pushed me to do that. And it benefited me tremendously...
Murl’s description of how selling herself “doesn’t come naturally” prods at a larger idea of introversion, a personality trait that she shared earlier in her interview. Introversion and/or a lack of confidence were expressed by many participants (Murl, Laura, Fiona, Morgan, among others) as challenges in their ability to fully succeed in their job; this required continuous effort in “learning how to sell yourself” and “learning how to toot your own horn.” Yet like Fiona, Murl started to overcome this challenge with TechWomen’s help. Laura echoed this sentiment more broadly when she shared:

I spent a long time being very introverted. So until I was maybe 30 I did almost no professional development. I should just say “no,” not “almost no” [laughed]…. I’m sure I went to something, but I really just was too shy and just felt like I never had enough time. I also didn’t understand the value, I don’t think. So um, you know, in my 30’s…. I just decided I’m going to push myself to get out of my comfort zone a little bit here and kind of start small.

Laura identified her own growth, similar to how Fiona and Murl recognized the pay-off of professional development in themselves. This progress, however, was a quality that other women could see too. Laura shared a story about using TechWomen to recruit female developers to her organization. She explained the difficulty in getting women to apply, specifically because of their self-confidence about doing the job. Laura’s story revealed how an organization like TechWomen could help to mitigate gender inequity in the industry:

I said, “If nothing else, you will get practice interviewing for a tech job.” I got two applicants and I ended up hiring one… They were both great applicants, I ended up hiring one and she’s awesome… I love that that happened because she didn’t think she was ready to apply for a pure programming job yet…. She was more than ready to transition
from graphic designer to backend developer. I’m just really thankful to [TechWomen] because that’s exactly what their mission is. It’s just really satisfying to see her realize she can do this and she’s made for it.

Laura was able to identify this person’s doubt, yet knew that “she was more than ready to transition.” Laura’s exemplar acknowledged the skill development and occupational support provided by TechWomen; she was also able to recognize the increased confidence of this new hire as a result of TechWomen. As Laura shared that it was “satisfying to see her realize she can do this,” the meaningful connection side of TechWomen was transformative.

**Meaningful connections.** Beyond learning-oriented interactions and the subsequent benefits, opportunities for meaningful social connections were consistently described and desired by participants. Participants wanted others to commiserate and have fun with, to gain assurance and validation from, and to push them outside of their comfort zones both inside and outside of technology. Individuals wanted for exchanges to extend beyond tech-related topics and occupational support, and into meaningful relationships. Laura spoke to how TechWomen filled a void when she explained her organization’s virtual work structure across geographic space. She said:

> Since we [my coworkers and I] are spread out all over the country, I don’t get that social aspect from our company on a face-to-face basis…. I rarely see my partners in person, it’s maybe once or twice a year. So that social aspect I really have to get here [at TechWomen] since I’m working remote…. I think that’s really the main thing, that face-to-face, in-person, regular local professional development I couldn’t get from my company.
Laura explicitly recognized that she cannot “get that social aspect” from her company in the same way that she can from accessible professional development. She was clear about wanting “face-to-face, in-person, regular local professional development” and about finding this through TechWomen. Laura can rely on meaningful in-person connections through TechWomen long-term, and not simply “once or twice a year” like with her company.

Ashley, a 29-year old freelancer, elaborated on the impact of meaningful connections when she stated:

Just having a group of people behind you that genuinely care about you, even outside of just the work that you do, they care about you personally and your family….even though you don’t know them [laughed] coming into it. These meaningful connections accentuated the personal bond that individuals looked for as they joined such groups; as Ashley described, these relationships extended “outside of just the work that you do.” Being accepted beyond their tech-worker identity was important for individuals as they socialized, and was something that TechWomen actively worked to create.

June acknowledged TechWomen’s efforts to facilitate meaningful connections beyond technology work. She stated:

We have what we call community building events. And so that’s everything from like a random group just meeting at a coffee shop to talk about whatever… We’ve had a DND [Dungeons and Dragons] group that just launched… because they’re all these people that were like, “Well I really want to play but I don’t know anybody.” Um and so one of our leadership is a dungeon master and so she started a group to teach these people how to play…. They’re not talking about code, they’re not doing anything but it’s that community piece.
As June described “that community piece,” she accentuated meaningful connections beyond work. She referenced situations like “meeting at a coffee shop to talk about whatever” and a new “DND [Dungeons and Dragons] group,” both of which facilitated connections between people about their personal interests and not simply their identity in technology. Opportunities for recurring meaningful connections set TechWomen apart, particularly when women could support other women.

**Gendered support.** The sense of support and camaraderie from other women was widely noted by participants as they described the TechWomen community, and was captured in field notes. From field notes about TechWomen’s Wine and Web event on February 10, 2018, Kaitlin (who declined to provide demographic information) acknowledged this compassionate dynamic when she declared, “these are my people.” The loneliness that may exist for individuals at work, and particularly women in the tech industry, could fade when meaningful connections grew in professional development communities like TechWomen; Carla elaborated on this idea and said:

You might remember how there would be feelings of being like the only woman in a tech company, feeling neglected, or feeling like isolated. When you join groups like these, you don’t feel isolated anymore. You feel that there is a big community of women in tech who support each other, and want more women to be in tech.

Carla drew the comparison that “feeling neglected” or “feeling like isolated” was resolved by the meaningful social connections that she found at TechWomen. In particular, the “big community of women” was noted as Carla described the support she received, and this was not unique to her. Gendered support was widely described and desired by participants. Carla’s feeling was repeated by Melissa, when Melissa stated:
I mean I think, you know, when you go to the [TechWomen] events you definitely feel more empowered when you come back and I know that sounds so cheesy, but it’s true. I mean, it’s just like encouraging. You feel uplifted when you come back, ’cause even though you might be in the classroom, being the only woman, or you might be applying for a job where you are the only woman, you know, or in an interview where you are being interviewed by men, you know that you have this whole group of women behind you, supporting you.

Melissa’s description of feeling “empowered” and “uplifted” and that TechWomen was “encouraging” accentuated how support from other women seemed to mean more to most participants, due to the nature of the male-dominated tech industry. Melissa reiterated the loneliness that comes with being “the only woman,” yet highlighted how the supportive nature of TechWomen helped her to cope. Anna’s perspective about TechWomen support was seemingly key in how an individual could cope with her own issues, when she stated:

Yeah, I mean it’s just being able to kind of interact with more females that have been through similar situations and that are sort of looking for some guidance in terms of some situations…. Have you experienced that kind of thing before? So, specifically as a woman when it comes to those interactions, it’s super helpful to kind of maintain perspective and impart some sort of change or some sort of positive effects on our general community.

The support and validation from “a woman when it comes to those interactions” emphasized why gendered support in TechWomen was substantial for women in technology. Several women shared that they felt comfortable asking questions to other women, but perhaps not to men; for example, Fiona stated:
Generally, I would want to go to [TechWomen] first um to ask questions when we were getting started, because I felt way more comfortable. Um they are really, really supportive, never make you feel stupid. That type of thing. I would say for me, it’s been the support and the um, being there to answer questions and not making you feel like, man why don't you know this, or anything like that.

Gender was central to Fiona’s decision about question asking. The connections between women, specifically at TechWomen, created a space for Fiona to get the occupational support she desired.

Many participants described TechWomen as an inviting space and as a haven because of its women-centered nature. Women were able process the sexist bad behavior they faced at work, while also getting the occupational skill, meaningful connections, and gendered support that they sought out in the first place. Anna spoke to the benefits of TechWomen when she shared:

It’s been a great group of people. That’s another environment where I feel like my input is just as valued and has always been ever since I came in on the first day as a mentor. As much as everybody else is a part of the organization. And they’re great at listening.

They’re great at defining their values I think, and applying their values.

TechWomen worked to address the gender inequities that women face in the male-dominated tech industry by “defining their values,” as Anna stated, and then “applying their values” in ways that were consistent with their overall mission. Anna recognized that TechWomen was “a great group of people” and that she had felt this way “ever since I came in on the first day.” Other participants shared similar sentiments during their interviews. The TechWomen community perpetuated respectful and positive interactions in which members could feel welcomed into a constructive professional development space. Ashley’s reflection encompassed this feeling best,
when she stated: “it's kind of like a rush of adrenaline that you get from going somewhere special.” This reaction, to a question about how it felt to be involved with TechWomen, reaffirmed the meaningful impact that this organization has on individuals.

Though sexist behaviors may persist in the workplace, women found solace in the TechWomen community from the very moment they joined. Between these meaningful connections with an emphasis on gendered support and the occupational support previously mentioned, the purpose of TechWomen’s professional development was clear. Individuals were looking for meaningful interactions, skills, and opportunities to grow. In particular, the knowledge, connections, and increased confidence that TechWomen participants left with changed how they reencountered their workplaces for the better. Based on this analysis, a discussion of research questions and implications will follow.
Chapter 5: Discussion

The present case study qualitatively examined participants’ involvement in professional development, as it related to their gender and workplace experiences. As individuals look to navigate the professional world, professional development can be a tool in processing and promoting their work lives. Particularly for women in technology, challenges arose due to the male-dominated nature of the industry. This study allowed for critical reflection regarding how professional development, through TechWomen and their events, supported people externally from their workplaces. Moreover, this study examined how professional development could specifically help women to share, critique, and grow in their workplace experiences. This chapter aims to relate this work to larger scholarly conversations, in terms of communication, organizational, and gender literature.

Summary of Findings

As the previous analysis showed, this study produced three significant, overarching themes regarding professional development and gendered workplace experiences. First, the identification, resistance, and/or denial of sexism at work was a prominent theme as individuals reflected on their occupational experiences. Within this male-dominated industry, women disclosed they were conscious of their gender; they were not, however, clear about the extent to which gendered interactions affected their work lives. Throughout their professional development experiences, and in interviews for this project, women worked to make sense of their interactions at work. Participants shared feelings of discomfort, confusion, and frustration as they identified, resisted, and denied a range of inappropriate (and arguably sexist) conduct.

From tasteless commentary, to observations about appearance, to overt sexist remarks and actions, women were clear about how they felt during these negatively gendered
interactions, though unclear about explicitly identifying such behaviors as sexism. Naming such behavior was a challenge, but women’s emotion about inappropriate behaviors never wavered. Thus reiterating two key details about workplace atmospheres: women were troubled by sexism at work and sexism at work remained a widespread problem. Most importantly, women’s reluctance in naming situations as problematic accentuated the tension they faced when calling out inappropriate behavior and fostering more conducive workplace cultures.

The second theme of this study centers on the underestimation of and overcompensation from women in their workplace roles. Women were keenly aware of the ways in which they were underestimated at work. They cited various situations and commentary in which their capabilities were questioned and undermined. With or without this explicit frustration, participants shared a desire to prove others wrong. They adopted this attitude and work ethic as they continued at work. Participants expressed pride when they successfully proved others wrong and when they realized that their contributions were significant.

When challenging underestimation and (re)establishing their worth, women often overcompensated to succeed. Working longer hours and taking on more duties, among other things, women often disclosed having exceeded general expectations and their colleagues’ productivity. Accounts of overcompensation further accentuated the double standards and gendered expectations prevalent in the workplace. Through this underestimation-overcompensation experience, however, women’s attitudes about advocating for work and experiences that were more welcoming and conducive for them began to show.

This led to a third theme, articulating the purpose of professional development and TechWomen’s key contributions to supporting women in technology. More explicit than any other request, women wanted occupational support and skill advancement from their professional
development experiences; they described a desire to relate to others in the technology industry and learn new skills in the process. They wanted to advance their skill sets, ask questions, and interact with other women tech-professionals. Occupational support through professional development provided participants an opportunity to socialize with others facing similar challenges, through interactions that they did not receive at work. As TechWomen, specifically, offered opportunities to learn and support others in the technology industry, women found that they were building confidence through interactions with this network.

These positive interactions permeated beyond simple confidence building, and into a desire for more personal relationships. Women found that meaningful connections with others at TechWomen helped them to flourish as individuals and in their jobs. These relationships, particularly when with other women, helped participants feel supported beyond their tech roles. Socializing allowed for participants to manage the isolating experience of being a woman in the technology industry, and instead interact as people who were passionate about their work. Gendered connections through this professional development offered women unique support, different from many workplaces. The TechWomen community added an element of personal development to the professional development scene, subsequently benefiting women in more ways than one. In all, these three overarching themes coalesced around a few of the challenges that women faced in a male-dominated industry as well as professional development’s instrumental role in beginning to address workplace inequities.

**Discussion of Research Questions**

First and foremost, this study has strived to answer: why are or aren’t women technology professionals participating in professional development? This study highlighted the external nature of professional development in the technology industry; more specifically, women are not
participating in professional development at their workplaces because it is not being offered. The lack of internal professional development leads women to seek out skill development and professional and personal networks from third party groups. To this end, the most explicit reasoning for participation in professional development was a desire to learn and be supported in their technology roles. As theme three suggested, women turned to professional development and specifically to TechWomen for this reason. TechWomen offered opportunities to expand one’s skillset while also relating to others and their own challenges in the technology industry. In addition to this, theme three also indicated that women participated in professional development due to a desire for meaningful connections with others. Relationships with individuals who could understand their tech experiences, but also view them as a whole person, were particularly significant for women in their professional development experiences. Opportunities to connect professionally and personally were ideal for this study’s participants, particularly when these connections were with other women. TechWomen not only fostered a comfortable and social environment, but concentrated their efforts on recruiting, welcoming, and supporting this network of women. Finally, women in the technology industry used professional development with other women as a useful tool in rationalizing their unique experiences and better preparing for their workplaces moving forward. Themes one and two combined to demonstrate that women face challenges and consequently used professional development as a space to process and make sense of these issues. TechWomen’s female-driven nature supported this push to address general gender inequities and support individuals as they faced their own personal injustices.

The second question driving this research study was: how do women technology professionals discursively construct their professional development experiences? First, and prevalent in nearly every interview, participants described TechWomen as a safe haven for
women in the male-dominated technology industry. As theme three shows, women desired, joined, and came to rely on the TechWomen community for a variety of reasons. The occupational support, meaningful connections, and gendered support were important to participants. They identified professional development to be useful in general, but that TechWomen was an irreplaceable resource for women technology professionals in the metro area. Second, participants emphasized the positive impact of professional development by repeatedly drawing comparisons between their workplaces and TechWomen. This discursive juxtaposition accentuated the benefits women received through TechWomen that were lacking in their work organizations. Theme one and three combined to demonstrate that as participants’ negative and sexist interactions occurred at work, they found solace and support from the TechWomen community. Finally, participants were clear that the meaningful connections and gendered support that TechWomen offered were the most significant parts of their professional development experiences; this came secondarily as occupational support and skill development were desired and articulated more explicitly. This discursive shift in priorities reiterates the positive impact of TechWomen on women’s professional development experiences.

Last, this study asked: how has professional development mitigated or contributed to women technology professionals’ discursive and material experiences of gender inequity in their workplace? Professional development played an instrumental role in supporting women in the technology industry. Though participants were proactive in finding workplaces and professional development that could best support them, TechWomen’s calculated approach helped women to cope with their gendered experiences in the male-dominated technology industry. TechWomen provided a space that helped women to make sense of inequitable gendered interactions in the workplace, before supporting and preparing them to better face these issues. This community
fostered a culture that supported women recognizing inappropriate behavior and planning for uncomfortable conversations about these topics. Moreover, this organization allowed for participants to act as professionals in the industry, rather than as women in technology. TechWomen worked to detach gendered stigma and appeared to benefit the attitude of TechWomen’s community. Through women-only events and strong female leadership, TechWomen demonstrates the abilities and successes that women are capable of; their gender becomes inconsequential to their professional development experience. Overall, themes one, two, and three combined to show the gender inequities women face in the workplace and how TechWomen’s professional development serves as a concrete solution that aided women as they managed their occupational lives.

**Implications for Theory**

The stages of Organizational Assimilation had a different effect on women than men in a male-dominated industry (Allen, 1996), and thus required increased attention for the well-being of women’s work, their experiences, and their workplace organizations’ gain. Additionally, professional development’s influence in each of these stages creates another important factor in individuals’ workplace experiences.

To begin, during anticipatory socialization, potential employees sought and evaluated valuable information as they considered prospective membership (Kramer, 2010). Through this study, evaluations from organizations and potential new members were related to gender. This project built on existing literature highlighting the perception that for organizations to accept women, then these women must do more to qualify for a position and do so in gender-congruent ways (Anderson-Gough et al., 2005; Ridgeway, 2001). Women must be prepared to address doubts about their abilities and prove their worth in the workplace (Anderson-Gough et al.,
Additionally, women considered gender as they anticipated membership in specific workplaces; this can be adopted similarly to a realistic job preview experience (Dailey, 2016a). In the male-dominated technology industry, this study’s participants were proactive in seeking out organizations that would be inclusive and productively critical of their work. Anticipatory socialization with regards to professional development connects to my participants’ approach; women used their TechWomen membership to learn about opportunities and organizations through a network of women that they trusted. This tactic has the potential to develop into a systematic process, in which women would capitalize on their female network in order to find better workplaces. Through this consideration, women would be supporting and strengthening gender inclusive employers and subsequently phasing out inequitable organizations. Their purposeful choices about professional development directly connected to the way they anticipated their gender and membership with other organizations.

As individuals begin to encounter organizations, or interact in their official roles (Kramer, 2010), gender and professional development seemed to influence their initial experiences. Gender, in particular, became significant as women worked to prove their worth (Gherardi, 1994). Though they may have done this in anticipatory socialization, women’s ability to prove their worth as accepted members became key to their transition into workplaces. Women had to repeatedly and tangibly show their skillset in order to be taken seriously (Mann, 1995). Many participants spoke to this idea as they recounted their initial job experiences. Meanwhile, professional development may have been less significant in this stage. Time constraints from a new job may make professional development more difficult, though the space to consistently understand and prepare for the new role could still be useful. Perhaps more importantly, professional development helped individuals build confidence (Vinnicombe &
Singh, 2003) during the encounter stage. Participants recognized the role of professional development through these initial experiences, but were not explicit in stating that professional development was critical to their first encounter with a new workplace.

This study best provided evidence and justification for the metamorphosis stage of organizational socialization. The majority of participants in this research were established members in their workplaces, and thus reflected more effectively on the impact of gender and professional development on their experiences. In terms of gender, women were still striving to prove their worth at work (Gherardi, 1994). These individuals identified the need to repeatedly establish themselves (address underestimation), as well as the added time, work, and impression management that it took to perpetually complete this process (using overcompensation) (Maina & Caine, 2013). Additionally, gender was a component of the metamorphosis stage as women became more aware of the inappropriate behaviors occurring in their workplaces (Maina & Caine, 2013). It was also during this time that other employees were comfortable enough with participants to act naturally but problematically; it was during this time that women were established enough and not overwhelmed in their careers that they could begin to identify, albeit reluctantly, inappropriate behavior yet denied the pervasive and sexist nature of these actions and commentary.

In terms of professional development, metamorphosis was a time in which individuals sought new skills and support systems to keep them competitive at work (Attebury, 2017; Duncan, 2013). This time in organizational life allowed for interactions in professional development to serve as a tool, rather than an added burden (e.g. time) or with purposeful ulterior motive (e.g. finding a new job). However, several participants did recognize that TechWomen provided them with a sense of community and support that often sparked new
opportunities. These connections, while not overbearing or aggressive, allowed metamorphosized women to anticipate career moves, transition to better roles, women-welcoming workplaces, and more. The potential for this transition to occur accentuates the nonlinear nature of organizational assimilation processes meanwhile reinforcing its very strength as an organizational theory.

Additionally, a person’s work organization will benefit greatly by supporting the employee’s pursuit of professional development in the metamorphosis stage. TechWomen helped metamorphosized members, in particular, through occupational support and meaningful connections with other women. Participants could use TechWomen to better understand their gendered experiences and prepare with new technology skills while in the midst of their occupations. The occupational skill development, meaningful connections, and gendered support found in this study complement existing literature (e.g., Duncan, 2013; Helitzer et al., 2016).

The fourth and final stage of organizational assimilation, the process of exiting a job, though significant, was not a focal point of participants’ experiences. Though women referenced their gender and professional development in relation to previous roles, they did not speak to these issues well enough to make significant claims. Stressful and overwhelming interactions or general pressures often pushed individuals to exit organizations (Price & Hooijberg, 1992). Therefore, the researcher would speculate that particularly severe gendered interactions and sexist behaviors would push women to exit their jobs, and that TechWomen’s professional development would support the transition period (Helitzer et al., 2016), however this was not a significant topic of conversation with study participants and did not emerge as a theme in participant observation data.
Permeating throughout these four stages was the issue that individuals were socialized into the technology industry and for specific roles through professional development, but were not receiving professional development that socialized them to their specific workplaces. The external nature of professional development meant that employees lacked significant socialization to their organizational roles and missed bonding with their workplace community. Particularly for women, navigating work cultures became challenging as their gender identity was not contextually addressed in professional development at work; they were left to make sense of their gender and position on their own. The proactive trait of TechWomen members facilitated sensemaking (Weick et al., 2005) about their occupational roles and build community with other women working in technology.

Regardless, professional development has the potential to aid the organizational assimilation process. Professional development can nurture individuals through each phase, and can spark sensemaking (Weick, et al., 2005) when these transitions are ambiguous or equivocal. It can support each member differently based on their unique point in vocational assimilation, organizational assimilation, and role assimilation. The confidence building, community building, skill development, and knowledge sharing of meaningful and effective professional development will undoubtedly foster each organizational assimilation phase and the transitions between them. TechWomen participants demonstrated that professional development can thoroughly support organizational assimilation.

Overall, an increased effort to address gender and professional development in organizational assimilation would better support women in the male-dominated technology industry.
Implications for Topic

**Professional development.** As previously mentioned, professional development has been defined as “the formal acquisition of skills and knowledge that can be applied in a work setting and used for career and/or business advancement” (Lyons et al., 2016, p. 320). This study offers meaningful additions to the existing definition due to the emergent findings regarding the role of community, networking, social capital, and social support in TechWomen. This work demonstrates that meaningful professional development advances beyond simple job training, and instead cultivates professional and personal relationships. A new definition for professional development must capture opportunities for individuals to engage with one another, and to do so with the time and repetition that could allow for long-term connections. Duncan (2013) and Helitzer et al. (2016) spoke to this potential by describing that professional development can offer individuals, and women specifically, unique skills and support (networks) that can be key to being more knowledgeable, comfortable, and productive organizational (work) members. Opportunities for community building and networking within the industry will strengthen women’s comfort within and ability to successfully function in their workplaces; importantly, having communities and networks of women specifically will reinforce this benefit further as seen in this study. Professional development groups, like TechWomen, provided individuals opportunities to learn as a professional and grow as a person; they supported attendees by offering sessions and interactions different from what was available at work. This social support from other women in the technology industry should not be discredited. As such, Lyon et al.’s (2016) definition should be revised due to the findings of this study to read that professional development is: the formal acquisition of skills and knowledge, provision and reception of social support, and facilitation of industry community building through meaningful, recurring
professional and personal connections that can be applied in a work setting and used for career and/or business advancement.

In addition to a new definition of professional development, this study recognized that the lack of internal professional development is hurting organizational members. The external nature of professional development experienced by participants in this case study highlighted the reality that workplaces are not doing enough professional development within their organizations to adequately support employees, and women specifically, which is integral for individual and organizational success (Lyons et al., 2016). For example, socialization to an organization and its culture/politics can be key in a person’s ability to gain a promotion (Chao et al., 1994), and with women already making less money then these opportunities become even more necessary. Moreover, organizations want continued success in terms financial gain, customer satisfaction, and more (Lyons et al., 2016), and thus could use professional development to achieve these goals. Inappropriate commentary, pervasive sexism, and so on, serve as stressful barriers to a welcoming workplace environment (Kaiser & Miller, 2004), and these issues often go unaddressed due to the lack of internal professional development. Overall, this study reiterates that the impact of gender and professional development are significant in women’s workplace experiences, and the lack of action and communication about these issues at work sends a clear message about organizational priorities in ways that disadvantage women.

**Social capital.** The social capital gained during professional development was desired by women as they wanted to minimize their isolation, build a professional network, and find female mentors (Helitzer et al., 2016). TechWomen, overwhelmingly, achieved this through their events and sense of community. Participants found meaningful connections, particularly with other women, which helped them to face workplace challenges. While benefits to individuals were
important, the larger notion of social capital was key to women’s success in this male-dominated industry. As Allen (2011) described, social capital “consists of networks, or connections among people who can help one another” (p. 95). Particularly for women, these networks can allow them to find professional and personal insight from peers, as well as useful guidance about which metro area organizations were gender inclusive. Ultimately, social capital can help women to better navigate the male-dominated world of technology.

**Gendered social support.** In addition to general social capital, the benefits individuals at TechWomen experienced were directly related to the gendered support they received from other women; as such, gendered social support should be added to discussions of social support at large. House’s (1981) social support typology accounts for informational, instrumental, appraisal, and emotional support. While TechWomen provided these types of support, gendered social support emerged as a unique manifestation of social support in this case study. As a significant personal identity for many, the gendered relationships shared by TechWomen participants allowed for a unique bond between women to develop as a means of professional and personal support. The impact described by TechWomen can be translated to other organizations (e.g., professional development spaces, affinity groups, or otherwise) and can be used by individuals of any gender; it is time and space for meaningful connection between similar professionals of the same gender that will trademark gendered social support. TechWomen offered participants a unique experience that they were not finding elsewhere, and this haven became even more powerful as they faced their gendered journeys in the male-dominated technology industry. This topic should be recognized and expanded on as its significance for all people will magnify the influence of social support.
**Gendered hegemony.** Through this study, gender was reinforced as a hegemonic structure even as participants and TechWomen worked to highlight inequities. Women inadvertently, but consistently spoke of the power that men held in workplace environments. Acceptance of inappropriate and sexist behavior, as well as repeated underestimation of women were notable ways in which work and organizational cultures maintained men’s superior ideological status; workplaces were constructed to favor men (Acker, 1990). To this end, as women’s speech sidestepped sexism then sexism was perpetuated. Reluctance to name sexist behavior was complicit and therefore validated and reified such behaviors as acceptable. This same logic applied to the underestimation-overcompensation relationship and how it reinforced gender as hegemonic. By underestimating women, then men’s dominance was reasserted; as women worked to make up this difference, then their inferiority was reaffirmed as well. And, women were willingly engaging in overworking themselves thus further exploiting their already subjugated roles in organizations. Finally, TechWomen’s events facilitated an atmosphere of collaboration and supportive feedback, maximizing stereotypically feminine qualities (Walker & Aritz, 2015) that women’s workplaces lacked. While this was useful for women in the TechWomen community, it was unrealistic of environments that they worked in, within technology’s male-dominated industry.

**Destabilizing and detaching stigma.** Because workplaces were socially constructed to support men (Acker, 1990), women took on the burden of inferior status. Their gender became a mark from which they could not escape (Brekhus, 1998) and one that routinely disadvantaged them (Goffman, 1963) in the eyes of their employing organizations. Thus, the bodily/physical taint (Goffman, 1963) of their female anatomy and the tribal/social taint (Goffman, 1963) of femininity discredited women in the eyes of men. Goffman (1963) described that because of taint
and the resulting stigma, the superior group “exercise[d] varieties of discrimination, through which we effectively, if often unthinkingly, reduce [their] life chances” (p. 5) which led to “rationalizing an animosity based on other differences” (p. 5). As the stigma of being a woman, particularly in a male-dominated industry, weighed on individuals then TechWomen was able to intervene. TechWomen identified and capitalized on stereotypically feminine qualities, and used these things to their advantage as they created an organization and events that met attendees’ needs. TechWomen was conscious of women’s communication styles (Walker & Aritz, 2015), as well as hesitation and overpoliteness (O’Barr, 2001); they were mindful of confidence level (Tannen, 1994), question asking, and question intonation (Allen, 2011; Walker and Aritz, 2015). TechWomen worked to create a space and a culture in which gender was not problematically at the forefront of experiences, but rather welcomed individuals who faced similar challenges into an atmosphere where they could momentarily transcend their stigmatized gender identity. This effort by TechWomen temporarily destigmatized womanhood for attendees, and refocused attention on their tech-worker identity. Detaching from gender stigma allowed for participants to feel more comfortable and confident in technology’s male-dominated industry.

**Practical Implications, Limitations, and Future Directions**

This study provided six distinct, practical implications and resulting recommendations. First, individuals should be more critical of their workplace experiences, and not shy away from naming problematic behavior. Women, specifically, must be empowered to critique their workplaces and speak up when sexist actions ensue rather than simply enduring. Second, women should proactively look for professional development that could offer occupational support and meaningful connections, especially with other women. This study demonstrated that professional development could benefit individuals professionally and personally, and this support was
significant when one was marginalized in the workplace. Third, TechWomen’s general mission, events, and network-building style should be used as a model for other successful professional development organizations. The work that TechWomen has done has been instrumental in shaping the technology industry in the metro area, as well as in supporting women as the work in these roles. Fourth, employers should recognize and facilitate components of TechWomen’s professional development (skill development, occupational support, and meaningful connections) in their own organizations through internal professional development programs, which would help to avoid harmful organizational dynamics, like that of gender discrimination (Helitzer et al., 2016). Employees deserve a more concerted effort from their employers to provide professional development and address workplace inequities in the organization’s culture. Fifth, employers, schools, government, non-profit organizations, and other institutions should set explicit goals about how to bring more women and girls into STEM fields. They should establish aggressive goals for both working women and girls. Then, they should craft recruitment campaigns to employ at the local, regional, and national level. These campaigns should target working women, regardless of their current careers, and girls in elementary, middle, and high school, as well as adults in college and graduate school. Finally, legislation should be passed requiring organizations to create and implement internal professional development sessions that address workplace inequities, tied to gender and other marginalized identities, as a means of fostering more inclusive workplace cultures. This legislation should undoubtedly function for public entities, and should be strongly encouraged for private organizations; additionally, the government should fund professional development for marginalized groups and organizations.

Beyond implications and recommendations, this study functioned with several limitations, which leads to opportunities for future research. First, TechWomen was a group of
proactive people, who seemed eager to address gender inequities in tech, find workplaces that fit their needs, and discover professional development that supports other missing components in their workplaces. This group was a subset of the technology industry in the metro area, and their desire to engage in these issues yielded a strong advantage. However, there were likely many women working in STEM fields who have engaged in professional development that do not share this proactive trait. Future research should explore the experiences of individuals’ participation in professional development because it is required. Second, TechWomen was a women-led organization; while men were involved, they were not participating at the same rates and/or with as much influence. This was not a realistic view of the male-dominated technology industry, and therefore TechWomen functioned without some of the pushback and challenges that would be present in other professional development organizations and in the workplace. Future research should examine women’s experiences in professional development organizations, focused on male-dominated industries, which are led by men and by both men and women. Third, TechWomen was external to any workplace organization, and therefore could not speak to the use of internal professional development in addressing gender inequity and members’ organizational experiences. While members referenced very little internal professional development, this case study did not examine even these minor sessions and events. Future research should explore how workplace inequities (related to gender, race, ability, social class, age, etc.) are addressed during internal professional development sessions. Fourth, the researcher was not a member of technology industry or community, and therefore lacked knowledge about tech-specific vernacular, problems, work roles, and organizational hierarchies. Though this inexperience allowed for useful probing questions and more detailed explanations from participants, it did serve as a contextual barrier to some of the experiences shared by participants.
Future research about the technology industry, or any other specialized field, should use a collaborative team approach in order to address insider and outsider perspectives on issues, interactions, and more. Lastly, this case study was done over a relatively short time period and thus could not capture the way TechWomen has evolved to meet the needs of its members. Additionally, in the future, longitudinal case study research should be done to better explore the role of an organization like TechWomen in the course of women’s careers.

This chapter worked to situate this study’s findings (identifying/resisting/denying sexism, underestimation/overcompensation, and TechWomen’s community and purpose) into the larger scholarly conversations of communication, organizations, and gender. Each theme contributed to a broader narrative about women in a male-dominated industry, and offered important areas for improvement. Ultimately, this case study aimed to explore the role of professional development for women who worked in the technology industry. In doing so, this work sought to support women as they identified inequities, challenged realities, and grew in professional and personal capacities.
References


https://doi.org/10.1080/10570314.2011.651250


Retrieved from https://www.genderspectrum.org/quick-links/understanding-gender/


Appendix A
Letter of Introduction

Dear __________________________,

Hello, my name is Chelsea Cullen. I'm a graduate student at the University of Kansas, working on my Master of Arts degree in the Department of Communication Studies. My studies revolve around organizations and their members’ identities. My personal research interests center on workplaces and gender. For my Master’s thesis, I would like to research the role of professional development in women’s workplace experiences. My goal is to better understand how professional development can support women, through organizations such as yours. I believe that your organization is an ideal site for my research. My study’s proposal process includes finding and entering an organization the focuses on professional development, for women specifically. I would like to formally request approval and access to your organization for my thesis research.

More specifically, I'd like to join your organization as a participant observer and conduct voluntary interviews with your members. If you allow me to research your organization, there are several benefits that I can provide you:

- I can serve as an unpaid volunteer in your organization. I have a strong organizational skill set that can be put to use as you see fit. I'd be happy to share my resume with you.
- I can offer you my research findings from this study. These findings may give you some additional insight into what it is like to be a member at [TechWomen], and as a woman in the technology industry at large. This information may also help you advance the experience for your clients and improve your organizational effectiveness.

During the research process I’d like to observe how your members interact and communicate with one another and with the organization. This type of observation will help me see how this communication creates the culture of your organization. This research will also help me better understand how people manage their workplace experiences, in relation to gender and professional development. I would also like to interview members of your organization (regardless of member involvement level) to gain a better understanding at how your services aid professional women in the technology industry.

I would love to meet with you in person to discuss specifics and to address any issues or concerns you may have regarding my project and involvement. Moreover, I am hopeful that we can discuss any role I can provide the organization. When would you be available to meet?

This study is strictly for academic purposes; this work will provide me a learning opportunity and the chance to elevate conversations about women in the workplace. Your organization’s
identity, and participants’ identities, will be concealed and all information gathered and analyzed will remain confidential.

I would love to share more about my thesis proposal with you in more detail. I’m eager to learn how I might get involved with [TechWomen]. Feel free to contact me via e-mail or phone; my contact information can be found below my signature. I have copied my thesis advisor Angela Gist-Mackey, Ph.D., on this e-mail so that she is aware of my request to you.

I genuinely appreciate your time and consideration in this process! I look forward to working with TechWomen in the near future!

Sincerely,

Chelsea Cullen
Graduate Teaching Assistant
Department of Communication Studies
1440 Jayhawk Blvd., 402 Bailey Hall
913-730-6967
ccullen@ku.edu
Appendix B

Executive Summary

**Working Thesis Title:** “Like a rush of adrenaline that you get from going somewhere special.”
A case study analysis of professional development and gender in the technology industry.

**Workplace Situation:** According to the National Center for Women and Information Technology (2017), 26% of the computing occupations in the U.S. workforce and 20% of Fortune 100 Chief Information Officers (CIO) positions were held by women in 2016. While 57% of Bachelor’s degree recipients were women in 2015, only 18% of Computer and Information Science Bachelor’s recipients and 16% of Computer Science Bachelor’s recipients were women during that same year (NCWIT, 2017). Women employees need more opportunities to expand their professional knowledge and networks in order to better cope with issues of gendered inequity in the workforce. Professional development opportunities will increase the satisfaction and motivation that employees experience in their roles (Lyons, et al, 2016).

**Project Description:** The purpose of my thesis research is to better understand how professional development can support women in a male-dominated industries. I am specifically interested in how professional development can educate and prepare women to face gender inequities in the workplace.

Overarching Research Questions:
- Why are/aren’t women participating in professional development?
- How do women talk about their professional development experiences?
- How has professional development mitigated or contributed to women’s experiences with gender inequity in their workplaces?

**Communication:** My area of interest is in communication; more specifically:
- How do members describe their workplace experiences, with specific attention to gender?
- How do members describe their gendered workplace experiences to other members and/or the organization?

**Methods:** In order to answer these questions, I propose the following research methods:
- Participant Observation: Serving as a volunteer while observing and participating in multiple aspects of the organization.
- Interviews: Open dialogue via verbal/written communication to better understand the experiences of participants.
- Time Frame: Approximately 1-3 months (Will vary depending on progress).

**Benefits:** Allowing me to research your organization has minimal to no risk for you.
- [TechWomen] gains a skilled, unpaid volunteer.
- The research findings are yours! This research may give you some additional insight.
  - Provide perspective into [TechWomen’s] member experiences.
  - Improve your organizational effectiveness.
**Action Items:** Pending your approval of my research proposal, I will need a written letter on organizational letterhead granting consent and access to your organization for the purposes of this thesis research. A sample of the approval letter is enclosed for your reference.
Appendix C
Sample Approval Letter
*Please place on organizational letterhead

University of Kansas Office of Research
Institutional Review Board
2385 Irving Hill Road
Lawrence, KS 66045

To Whom It May Concern:

As the [Enter Title Here] of [Organization], I am granting Chelsea Cullen permission as the primary student investigator under the supervision of Dr. Angela Gist-Mackey, Assistant Professor at the University of Kansas to research our organization, its culture, members, and staff.

Chelsea has expressed interest in researching our organization using two forms of data collection (participant observation and interviews). It is my understanding that all participants at our organization who wish to participate in this research will provide prior written or verbal consent. We recognize that all participation is voluntary and may entail being observed during regular organizational activities, completing an audio taped interview with the researcher about the organizational culture and experiences within our organization, work experiences outside of our organization, and filling out a short demographic questionnaire. Also, we realize that some participants will be asked to give feedback on the analysis later in the process. We agree that there is minimal risk involved with the study. There is no more risk than our participants would experience in their daily interactions.

The benefit to us as an organization is three fold: (1) the results of this study may help us understand more about our organization and our members experiences, (2) as participants we will be able to see the research process first-hand from the participant perspective, and (3) Chelsea Cullen’s participation as a volunteer will ultimately help our organization work towards its mission.

We understand that our identity will be kept confidential. Therefore it will not be revealed in transcripts, written documents, or verbal presentations of the data.

If you have questions, please feel free to contact me via e-mail; see my information below.

Thank you,
[Enter Name Here]
[Enter Title Here]
[Organization]
Telephone: (###) ###-####
[enter e-mail address here]
[enter organizational URL here]
Appendix D
Recruitment Materials

Email to Potential Participants:

Hi ______________________,

I am conducting a study that examines women’s experiences in the workplace. More specifically, I am interested in your involvement with professional development sessions and [TechWomen].

To make this happen, I would like you to consider participating in an audio-recorded interview that should take approximately 1 hour. This interview may be conducted in-person, over the telephone, or via Skype, and at the time (and location for in-person interviews) of your choosing.

Please note that your decision to participate is completely voluntary. Participants must agree to be audio-recorded. If you would like to share your experiences, please contact me via email and we will schedule a day/time/location to meet.

I genuinely appreciate your time and consideration in this process! I look forward to working with you in the near future!

Sincerely,
Chelsea Cullen

Email Response to Interested Volunteers:

Hi ______________________,

Thank you for your interest in my study. I appreciate your willingness to participate and look forward to meeting you soon.

Please let me know which of the following times would work best to conduct our interview; it will take approximately one hour.

- List day/time availabilities here.

Additionally, are you available to conduct this interview in-person, over the telephone, or via Skype? For in-person interviews, you may select the location for our meeting. Quiet meeting spaces, coffee shops, and others often work well. For interviews over the telephone or Skype, I will need your best contact information. What format would you prefer?

As a reminder, your participation in this study will entail an audio-recorded conversation to discuss your personal and occupational experiences. Audio recording consent is a requirement to participate in this study.

Let me know your thoughts, and we’ll work from there. Thank you!

Sincerely, Chelsea Cullen

Phone Contact Script
Hi, my name is Chelsea Cullen. I was told that you might be interested in participating in my study exploring women’s experiences in the workplace and with professional development. This research seeks to understand how and to what extent gender plays a role for individuals at work. Your participation would involve one audio-recorded interview, that will approximately 1 hour. Audio recording is a requirement for participation. Would you be interested in participating?.....

*Progress naturally to schedule an interview. Thank you so much for your time, and I look forward to seeing you soon!

**Recruitment Flyer Information:**

Research Participants Needed!

Researchers at the University of Kansas are seeking women to participate in an interview about their workplace and professional development experiences.

Participants must:
- Be at least 18 years of age
- Work as professional in technology industry
- Be a member of a professional development organization for women in technology

Interviews will last approximately one hour, and may be done in-person, over the telephone, or via Skype. All interviews will be conducted at the time (and location if need be) of your convenience. All interviews are audio-recorded and answers are confidential.

If you are interested, please contact Chelsea Cullen (ccullen@ku.edu; 913-730-6967).

Thank you for your time and consideration!
Appendix E
Participant Consent Form

Researchers: The primary researcher is Chelsea Cullen, Graduate Student at University of Kansas, is working under the direction of Dr. Angela Gist-Mackey, Assistant Professor at the University of Kansas, as part of a Master’s thesis project.

Study Purpose: We are conducting this study to better understand gender and professional development in the workplace.

Participation: Your participation is voluntary. You may quit at any time and/or you may refuse to answer any question without consequence.

The following qualifications should be met by all participants: (1) be at least 18 years of age, (2) work as professional in technology industry, and (3) be a member of a professional development organization for women in technology. Your participation entails completing an audio-recorded interview with the primary researcher and filling out a short demographic questionnaire. You may also be asked to give feedback on the analysis later in the process; participation during this phase of the research is welcomed but not required.

Time Commitment: In total, participant interviews should take approximately 60 minutes, varying based on the extent of details being shared. The interview conversation will be recorded for transcription purposes.

Risks: This study involves minimal risk. There is no more risk than you would experience during your daily interactions.

Benefits: The results of this study may help to promote gender equity in the workplace and to better facilitate professional development sessions for women.

Confidentiality: Your identity will not be revealed in written or verbal presentations of the data. The following steps will be taken to protect your identity:
  1. Consent forms will remain separate from the data.
  2. Personal identifying information will be eliminated from transcripts as well as from written and verbal reports of the data.
  3. You will select a pseudonym to replace your name on all transcripts and reports.
  4. Audio files will be password protected.

Consent and Authorization Refusal: You are not required to sign this Consent and Authorization Form. Refusal to do so will not affect your right to any services you are receiving or may receive from the University of Kansas. However, if you refuse to sign, you cannot participate in this study.

Consent and Authorization Cancellation: You may withdraw your consent to participate in this study at any time. If you decide to withdraw from this study, the researcher will ask you if
information previously collected can be used; please inform the researcher whether or not you would like that information to be discarded.

**Audio Recording Consent:** This study will involve audio-recorded interviews. Audio recording is required to participate in the study. If you do not agree to audio recording then you may voluntarily withdraw from this study. In addition, participation can be stopped at any point during the interview. Audio recording files may be transcribed by a paid transcriptionist, who will have access to the audio files for a limited period of time. The paid transcriptionist will sign a confidentiality agreement prior to transcribing the files. Once transcripts are completed and approved by the researcher, the paid transcriptionist will erase his/her copy of the audio files within 30 days of transcription completion. The researcher will have access to both audio files and transcripts from individual interviews. The researcher will keep transcripts indefinitely and audio recordings for up to 1 year after the analysis is complete.

Please initial one of the two following statements:

_____ I agree to have this interview audio-recorded and maintain the right to stop recording at any time.

_____ I do not agree to have this interview audio-recorded and I withdraw from this study.

**Participant certification:** I have read this Consent and Authorization Form. I have had the opportunity to ask, and I have received answers to, any questions that I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or (785) 864-7385, write the Human Research Protection Program, University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email irb@ku.edu.

I agree to take part in this study as a research participant. With my signature, I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization Form.

________________________________________
Type/Print Participant's Name

________________________________________
Participant's Signature

________________________________________
Date

**Researcher Contact Information**

Chelsea Cullen
Graduate Teaching Assistant
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1440 Jayhawk Blvd., 402 Bailey Hall
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Angela Gist-Mackey, Ph.D.
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angela.gist.mackey@ku.edu
Appendix F
Demographic Survey

1. What is your sex? Please circle most appropriate answer.
   • Male
   • Female
   • Other: ____________________

2. What is your age? ____________________________________________

3. What is your race? Please circle all that apply.
   • American Indian/Native American
   • Asian
   • Black/African American
   • Hispanic/Latino
   • White/Caucasian
   • Other_____________________________________________________

4. What is the highest level of education you have completed? Please circle most appropriate answer.
   • Some high school
   • High School Degree/GED
   • Some college
   • Associate’s Degree
   • Bachelor’s Degree
   • Master’s Degree
   • Professional Degree
   • Doctorate

5. Are you currently employed? _________________________________
• If you are employed, what is your current occupation? ______________________
  ➢ How long have you been employed by your current employer? _________
  ➢ How many days per week do you work? ______________________________
  ➢ How many hours per day do you work? _____________________________
  ➢ Is your work temporary or permanent? _____________________________
• If you are not employed, what was your previous occupation? ________________
  ➢ If you are searching for work, where are you searching? ____________
6. Have you held a supervisory role? ______________________________________
  • If so, how many people did you supervise? _____________________________
7. How long have you worked in the technology industry? ________________
8. How long have you participated with [TechWomen]? ______________________
9. What is your current role in [TechWomen]? _____________________________
  • Have you held other roles in [TechWomen]? If so, which one(s)? __________
10. Have you participated in professional development organizations prior to [TechWomen]? __________________________________
11. What is your annual income? Please circle most appropriate answer.
  • Less than $20,000
  • $20,000 to $34,999
  • $35,000 to $49,999
  • $50,000 to $74,999
  • $75,000 to $99,999
  • Over $100,000
12. Are you the primary breadwinner in your household? ______________________
13. How many people currently reside in your household? ______________________
14. What is your marital status? Please circle most appropriate answer.
   - Single (Never Married)
   - Married
   - Widowed
   - Divorced/Separated

15. If you are currently married, what is your spouse’s occupation? ____________________

16. How many dependents do you have? ________________________________
Appendix G
Interview Protocol

Date/Time of Interview: ________________________________________________________
Location of Interview: _________________________________________________________
Interview Facilitator(s): ________________________________________________________
Participant’s Chosen Pseudonym: ________________________________________________

Opening Statement: I’d like to start by thanking you for taking the time to meet with me today! I am so appreciative of your help! This interview is part of my Master’s thesis data collection process. In my thesis project, I am looking to better understand workplace experiences, particularly related to professional development and gender. I have started our audio recording. Please remember that you can refuse to answer any question, at any time without penalty. Alright, let’s begin.

Questions:

Work Experiences:
1. Can you start by telling me a bit about your current job?
2. What does an average day consist of for you?
3. Can you tell me about your employer?
4. What did you know about your employer before you were hired?
5. What do you like about your employer?
6. What do you dislike about your employer?
7. Can you tell me about your relationship with your boss?
8. What about your relationship with your coworkers?
9. Do you supervise others? If so, how do those relationships function?
10. How do you feel about your career as a whole?
11. How diverse is your organization?
   o In regard to gender?
12. How is your employer supportive and/or unsupportive of women in your occupation?
   o Do you or do you not see gender specific professional development (both internal and external) for employees?
   o Probe about “lip services” to women and/or mixed messages about organizational support.

Professional Development Experiences:
1. What does professional development mean to you?
2. What about professional development is important to you, if anything?
3. Does your organization offer professional development?
4. If so, how does professional development work for your organization?
5. What are the expectations of your organization for attending professional development sessions?
6. What types of professional development have you completed in the past?
7. What do you expect to get out of professional development sessions?
8. What do you like about professional development?
9. What do you dislike about professional development?
10. What kinds of topics are addressed in your organization’s professional development sessions?
11. What kinds of things are missing from your organization’s professional development sessions?
12. Tell me how professional development has manifested throughout your career?
13. Do you seek out professional development opportunities elsewhere?
14. What kinds of interactions do you have during professional development opportunities?
15. What does mentorship mean to you?
16. Do you believe that mentorship is an important component to professional development? Do you believe mentorship to be separate? Why or why not?

**TechWomen Experiences:**
1. Tell me more about how you came to join [TechWomen].
2. Can you share a bit more on what your role in [TechWomen] involves?
3. What do you get out of your membership in [TechWomen]?
4. Tell me a story about something positive that has happened to you as part of this organization.
5. Tell me a story about something negative that has happened to you as part of this organization.
6. What do you think are the strengths of [TechWomen]?
7. What do you think are the weaknesses of [TechWomen]?
8. What could this organization do better?

**Gender in the Workplace:**
1. Do you think your gender plays a role in your workplace interactions? Why or why not?
2. Do you find gender to be influencing interactions that you have with others in [TechWomen]? Why or why not?
3. Describe a time when you’ve witnessed sexism in the workplace.
4. Does anyone comment on your appearance while you’re at work? What do they say or do?
5. Does anyone comment about your participation level or productivity at work? What do they say or do?
6. Does anyone comment on your schedule at work? What do they say or do?
7. Tell me about your closest coworker or friend at work. Why are you close to them?
8. Tell me about someone that you do not enjoy interacting with at work. Why do you not enjoy them?
9. Tell me about a time when you felt like you were discriminated against because of your gender?
10. Tell me about a time when you felt successful despite your gender?
11. Tell me about a time when you overcame a challenge based on your gender.

**Metaphor:**
1. What is a metaphor that you might use to describe your work in technology?
Closing Statement: Thank you again for taking the time to meet with me! Your responses will be incredibly useful as I continue my project. Is there anything else you think would be helpful that we haven’t talked about yet? Are you willing to be contacted in the future, if I have any additional questions? Thanks!
Appendix H
Transcriber Confidentiality Form

The primary researcher is Chelsea Cullen, Graduate Student at University of Kansas, is working under the direction of Dr. Angela Gist-Mackey, Assistant Professor at the University of Kansas, as part of a Master’s thesis project. We are conducting this study to better understand gender and professional development in the workplace. No identifying information will be included in the audio-files or transcripts.

I, _________________________________, the transcriber, agree to:

1. Keep all information confidential by not discussing or sharing research information in any form or format (e.g., audio recordings, transcripts, names of participants) with anyone other than the researcher.
2. Keep all research information secure while in my possession, including audio recordings, transcripts, disks, or any other research information.
3. Return all research information in any form or format when the research tasks are completed, including audio recordings, transcripts, disks, or any other research information.
4. Consult the research, and then erase or destroy all research information I have remaining in any form or format regarding this project that is not returnable to the researcher. This includes information stored on a computer hard drive.

__________________________
Transcriber’s Name

__________________________
Date

__________________________
Transcriber’s Signature
Appendix I
Oral Observation Consent Form

As graduate student in the University of Kansas's Department of Communication Studies, I am conducting a research project about gender and professional development in the workplace for my thesis project. I would like to observe and take notes about this event/meeting and your interactions in order to learn about the relationship between gender and work, and about the work this organization is doing. Your participation is expected to last the length of this meeting. You have no obligation to participate and you may discontinue your involvement at any time by simply notifying verbally.

Your participation should cause no more discomfort than you would experience in your everyday life. Although participation may not benefit you directly, the information obtained from the study will help us gain a better understanding of women and men’s experiences in the technology industry. This meeting/event will not be audio or video recorded, and notes from this meeting will be stored on a password-protected computer. Additionally, your identifiable information will not be shared in any form of data collection, analysis, formal reports, and presentations of this research.

Participation in this meeting observation indicates your willingness to take part in this study and that you are at least 18 years old. Participation in this study indicates that you are at least 18 years old. If you choose to take part in this event/meeting but do not wish to participate in this study, please give a verbal notification. To this end, if you are under the age of 18 years old and/or unwilling to participate then none of your involvement in this event/meeting will be recorded. Should you have any questions about this project or your participation in it you may ask me or my faculty supervisor, Dr. Angela Gist-Mackey, at the University of Kansas’ Department of Communication Studies. If you have any questions about your rights as a research participant, you may call the Human Research Protection Program at (785) 864-7429 or email irb@ku.edu.