The Effectiveness of Negotiation Skills Training in Advancing the Status of Women in Male Dominated Fields: An Evaluation of CWSE-ON's Negotiation Skills Training Workshop

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Abstract

Gender equality has been linked to several positive organizational outcomes, including improved overall organizational performance (Dezsö & Ross, 2012). Yet, several fields in Canada, such as technology and engineering, remain male-dominated (Statistics Canada, 2009). Men and women communicate differently, and women's communication styles are sometimes perceived as weak, particularly in male-dominated fields (Carli, 2001). Women's preference for a more communal communication style also manifests in negotiations: women are less likely to negotiate, and when they do negotiate they are less direct and ask for less than men do (Babcock & Laschever, 2003). In order to help women develop the skills they require to advance their status in male-dominated fields, the NSERC Chair for Women in Science and Engineering delivered five negotiation skills training workshops for women in science, technology, engineering and mathematics (STEM) in Ontario. This thesis evaluates this training program using Kirkpatrick and Kirkpatrick's (2006) four-level training evaluation model, with questionnaires and qualitative semi-structured follow-up interviews as the main data collection methods. Ultimately, the thesis concluded that CWSE-ON was successful in creating a training program that produced positive results at multiple levels of the Kirkpatrick model. The program was particularly effective at encouraging participants to transfer their new skills back to the workplace and actually change their negotiation behaviours. The implications of these findings for training professionals is explored in depth.

Keywords: Training evaluation, negotiation skills, gendered communication, mixed method, STEM

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Chapter 1: Introduction

Certain cultural values and practices in male-dominated fields pose significant barriers for female professionals (Baxter, 2010). While gender representation has improved in many Canadian industries, the fields of science, technology, engineering and mathematics (STEM) remain male-dominated. In 2009, women represented only 22% of the workforce in natural sciences, engineering and mathematics, an improvement of only 3% since 1987 (Statistics Canada, 2009). Indeed, according to Engineers Canada (2011), in 2011 only 10% of licensed Canadian engineers were female. The gender divide is even more pronounced in management level positions. In all Canadian industries combined, including those that are predominantly staffed with women, only 31.5% of senior managers are female (Statistics Canada, 2009). Not surprisingly, the representation of women in management in STEM careers is significantly lower. Considering all management levels—not just senior management—in 2006 women represented just 17% of managers in engineering firms (Service Canada, 2012a) and 25% of managers in computer and information systems (Service Canada, 2012b).

It is essential to improve the representation of women in male-dominated fields, particularly in management-level positions. Gender equity leads to innovation and can help build strong, resilient organizations (Dezsö & Ross, 2012; Kelly & Dickson, 2012; Svensson, 2013). Organizations with equal representation of men and women in upper management are more able to resist 'groupthink', "the complacency that led to monumental governance failures at Enron and other corporations" (Branson, 2012, p. 795), than are organizations with unequal gender representation. Organizations characterized by gender equity have also been found to demonstrate a stronger commitment to corporate social responsibility (Boulouta, 2013), are more growth-oriented (Mateos de Cabo, Gimeno, & Nieto, 2012), and

exhibit better overall organizational performance (Dezsö & Ross, 2012). In addition, recruiting more women into STEM fields has been singled out as crucial for addressing growing job shortages in these fields (Information and Communications Technology Council, 2011).

Given the organizational benefits that can be achieved through gender equality, it is important to examine how representation of women in STEM management can be increased. This line of inquiry requires an understanding of the qualities perceived as essential for managers in these fields. Crucial abilities for STEM managers include “technical ability, productivity, and effective utilization of their employees” (Roberts, 1994, p. 562). Productivity is often considered the most important quality for management candidates, with workers “understanding that those who are the most productive from the firm's point of view will be rewarded with higher earnings and an opportunity to compete in the next level contest” (Roberts, 1994, p. 564). While this strategy sounds equitable, it is complicated by the nature of technical work. According to Roberts (1994), “monitoring the productivity of technical professionals is inherently difficult. Because work assignments are often made on a group basis, it is not easy to evaluate exactly the contribution of particular individuals” (p. 564). Given this, the ability to confidently communicate one's personal achievements, over those of colleagues, is essential. The modest communication style exhibited by women (Carli, 2001), explored in depth in chapter 2, may pose a barrier in this regard.

Effective communication, particularly communication that is perceived as strong and self-promoting, consistently arises as imperative for advancement to management positions in STEM. Based on a study on the career paths of science and engineering professionals, Roberts (1994) found that those who are able to most effectively express their commitment to “company goals” are considered most appropriate for management (p. 564). On a related

note, in their study of the managerial skills required by engineering firms, Dudman and Wearne (2003) found that many of the skills required for management positions in engineering firms are communication-based. These skills include making formal presentations, chairing formal meetings, motivating others, recruiting personnel, training employees, and negotiating with clients, union representatives, employees, and suppliers (Dudman & Wearne, 2003, p. 11-17). In short, early- to mid-career professionals in STEM are judged (in large part) on their appropriateness for management by the perceived strength of their communication skills, as well as their ability to communicate their achievements to management. Both of these abilities are essential in professional negotiations.

As noted, men and women are consistently found to have different communication styles, and some women's communication styles may preclude self-promoting behaviours such as communicating personal achievements to management (see Carli, 2001; Carli & Bukatko, 2000). According to Carli (2001), women are more likely than men to exhibit a collaborative communication style. Individuals adopting a collaborative communication style are likely to acknowledge the contributions of others, involve others in decision-making, and be warm and open (Carli, 2006). A collaborative communication style is associated with transformational leadership and excellence in management (Carli, 2001; Still, 2006). Yet, when exhibited by early- to mid-career professionals, this communication style may preclude the self-promoting behaviours required for advancement to management in male-dominated fields, as described above.

Gendered communication styles appear to impact negotiation behaviours as well, resulting in a difference between how men and women negotiate. According to Babcock and Laschever (2003), “men are asking for things they want and initiating negotiations much more often than women ... [whereas] men may be initiating four times as many negotiations

as women” (p. 3). In addition to avoiding negotiation altogether, once they are in negotiations, women tend to be less direct and focus more on achieving consensus than on getting what they want (Babcock & Laschever, 2003). While this has many positive applications, this negotiation style may exclude the self-promoting communication behaviours that facilitate advancement to management in the STEM field.

This thesis is positioned to explore this challenge through a comprehensive evaluation of a negotiation skills training program for early- to mid-career women in STEM administered by the NSERC / Pratt & Whitney Canada Chair for Women in Science and Engineering for the province of Ontario (henceforth referred to as CWSE-ON). By evaluating the effectiveness of CWSE-ON's negotiation skills training workshop, the thesis is positioned to demonstrate how negotiation skills training can have an impact and how these workshops might contribute to addressing the problem. Details about the training program under evaluation follow.

CWSE-ON's Training Program

This thesis was financially supported by CWSE-ON with the goal of obtaining a comprehensive evaluation of the effectiveness of its negotiation skills training workshop. The goal of the overall CWSE-ON program is to “increase the participation of women in science and engineering, and to provide role models for women active in, and considering, careers in these fields” (Natural Science and Engineering Research Council of Canada [NSERC], 2013, para. 1). This includes a mandate to “increase the profile and retention rate of women in science and engineering” and “eliminate barriers for women who wish to pursue careers in science and engineering” (NSERC, 2013, para. 2). The chair achieves these goals through funding research projects, developing online resources, and hosting professional development and networking events for women in STEM.

As noted, CWSE-ON conducted a series of half-day negotiation skills training workshops between September and December 2013. The CWSE-ON negotiation skills training program is a half-day workshop offered to early- to mid-career female professionals in science, technology, engineering and mathematics. The half-day negotiation skills workshop was conducted twice in Ottawa, once in Waterloo, and twice in Mississauga for a total of 5 offerings. Efforts were made to ensure consistency between each of the workshops in terms of content covered, activities used, total length of time, trainer, training style, level of interaction, and so on. The workshops ranged in size from 6 to 25 participants, with an average size of 12 participants.

The content of the CWSE-ON negotiation skills training workshop follows the negotiation process chronologically (CWSE-ON, 2013). It begins with planning ahead, detailing the importance of setting negotiation goals, knowing one's alternatives, determining the others' interests, and brainstorming ways to create value (CWSE-ON, 2013). The second section of the negotiation skills workshop deals with topics relevant during the negotiation process, such as how to choose an effective negotiation strategy, how to listen for understanding, and how to communicate effectively (CWSE-ON, 2013). The CWSE-ON negotiation skills workshop wraps up with a discussion of reaching agreement, addressing questions such as 'what does a good agreement look like?' and 'how do I know when I've got the best deal possible?' (CWSE-ON, 2013).

The content of the CWSE-ON training program was based on a literature-based needs-assessment of the target audience. In other words, the training was uniquely designed to meet the needs of women negotiators in male-dominated fields. A focus was placed on communicating confidently, taking credit for one's achievements, and asking for what is wanted—skills with which women tend to struggle (Babcock & Laschever, 2003). Specific

case studies and content pieces were derived from pre-existing negotiation skills workshops, such as MIT's *power and negotiation* course (Williams, 2002). Where possible, examples were adapted to reflect the fields of science, technology, engineering and mathematics in order to make the workshop particularly relevant for the target audience.

The effectiveness of the workshop was evaluated using survey data gathered immediately after the workshop in order to determine whether participants enjoyed the workshop and whether they learned the intended skills. The effectiveness of the workshop was also measured using interview data gathered 4-6 months later to determine whether participants were able to apply their new skills in the workplace. This data was used to draw conclusions about the effectiveness of the program and to develop a list of best practices for practitioners in the training field who wish to work with this audience. This methodology is elaborated upon in Chapter 3. Overall, the purpose of evaluating this negotiation skills training program was to explore whether such programs might be a useful way to empower women and address the gender gap in management level positions in the STEM fields.

Structure of the Thesis

Following this introduction, an in-depth literature review will be presented. The literature review will cover several themes, including gendered communication (differences in how men and women communicate), gendered negotiation skills (differences in how men and women negotiate), and the value of training as an intervention. Specifically, it will explore how training has been used as an intervention in these types of scenarios and which training evaluation frameworks are most often used in such circumstances. Subsequently, the particular training evaluation structure that will guide the research questions, methodology and discussion of this particular study is presented. A presentation of the main research questions follows.

The literature review will be followed by a presentation of the research design and methodology. There are two phases of data analysis presented: a quantitative analysis of survey data and a qualitative analysis of interview data. The selection of data and the design of the research tools will be outlined. A rationale for the chosen methodology will be provided.

After this chapter, the results of the survey and interview data analysis will be presented. Key themes emerging from the interview data will be explored in a detailed discussion section. Based on this analysis, insights relevant to practitioners in the training field will be presented in the form of recommendations. A conclusion highlighting the key insights and implications will follow. The conclusion will also contain an outline of the limitations of this thesis, and recommendations for future research.

Chapter 2: Literature Review

Literature in gendered communication in the workplace has developed significantly over the past five decades. Generally speaking, early research was situated within a *gender deficiency* perspective, identifying behavioural 'deficiencies' in female speech patterns (Baxter, 2010). In the 1990s and 2000s, gender and communication research typically adopted a *gender difference* perspective, still focused on identifying the differences between men and women, but considering the genders equal (Baxter, 2010). Those who adopt the gender difference perspective focus on identifying differences between how men and women communicate without necessarily judging one as superior or inferior to the other, though they may acknowledge the usefulness of certain behaviours in certain contexts (Baxter, 2010).

Training workshops have been identified as one possible way to inform men and women about the differences in gendered communication styles and their subsequent impact on behaviours such as negotiation. The precedent for using training as an intervention will be

explored in this chapter. The literature on the evaluation of training data—the core of this thesis—will then be developed. The research questions will subsequently be presented. The final section will elucidate how this thesis will make a contribution to the body of reviewed literature.

Gendered Communication

The 1970s and 1980s saw a surge of interest in studying the behavioural differences in how men and women communicate (see, for example, Lakoff, 1975; McMillan, Clifton, McGrath, & Gale, 1977; Mulac, Lundell, & Bradac, 1986; Preisler, 1986; Stephen & Harrison, 1985; Sterkel, 1988). Much of this research seems to have been borne out of an academic drive to quantitatively 'prove' behavioural differences between the sexes that had only been demonstrated anecdotally prior to that point. This is typified by Smeltzer and Werbel (1986), whose study quantitatively analyzes written communication of male and female writers in order to determine whether sex differences in communication are "fact or folk-linguistics" (p. 41). Prior to this period, Smeltzer and Werbel (1986) suggest that research on language and sex was characterized by "numerous speculations, untested hypotheses and anecdotal observations" which new research must aim to check with *empirical research"* (Thorne & Henley, 1975 in Smeltzer & Werbel, 1986, p. 41).

This early research tended to be prescriptive in nature, identifying behavioural communicative 'deficiencies' and recommending corrective action. As such, this trend in the study of gender and communication has sometimes been called the *deficiency perspective*, "because it considers that females use a deficient or inferior version of the language spoken by men" (Baxter, 2010, p. 54). This trend is exemplified in the language used by researchers Smeltzer and Werbel (1986):

> Communication presents a special difficulty for women. Written and oral communication skills are two of the most important skills for success as a manager (Warbois, 1975). Yet... women demonstrate ineffective communication characteristics such as verbosity, constrained vocabulary and indirect requests. (p. 41)

Further evidence of the gender *deficiency perspective* is apparent in studies about assertiveness training for women (see Baer, 1976; Osborn & Harris, 1975; Phelps & Austin, 1975). For example, according to Richey (1981), assertiveness training is valuable as a “treatment of women's self-criticism” and can help women correct “difficulties in self-assertion” (p. 157) such as “self-denying, restrained and inhibited behaviour” (p. 160). The focus of this work was on identifying deficiencies in women's speech patterns and prescribing corrective action to 'be more like men' (Baxter, 2010).

Research in the deficiency frame addresses themes such as the glass ceiling (see Morrison, White, Van Celsor, & Centre for Creative Leadership, 1987), barriers to female advancement in the workplace (see Riger & Galligan, 1980), gendered communication styles (see Smeltzer & Werbel, 1986), and the need for women to be more assertive, direct and confident (see Thorne & Henley, 1975). According to Baxter (2010), some modern researchers continue to employ a deficiency perspective, although it generally fell out of favour by the end of the 1980s (p. 54-57).

In the 1990s and 2000s, research in gendered communication typically shifted to what is called a *gender difference* perspective (Baxter, 2010). The *gender difference* perspective maintains that there are distinct gendered categories (often presented as a binary between 'men' and 'women') and that members of these gendered categories exhibit distinct communicative behaviours, which are stable over time and capable of being catalogued. Rather than viewing women and men as having different communication styles and women

as being deficient, these researchers focus (without implying a bias) on descriptively identifying differences between how the genders communicate. In other words, these researchers maintain that the communication styles of men and women are “different but equal” (Baxter, 2010, p. 58). In this sense, the literature in the field of gender and communication in the 1990s and 2000s tended to be more descriptive— rather than prescriptive—in nature.

Gender difference research has focused on themes such as the importance of gender and cultural diversity in the workplace (see, for example, Rosener, 1990; NEA, 2007), differences between male and female leaders (Still, 2006), how socialization affects communication patterns (see Tannen, 1994) and ways women can exhibit influence in the workplace (see Carli, 2001). Studies in this frame have also tended to adopt a more nuanced understanding of the challenges faced by women in organizational settings, addressing themes such as the double standard faced by women (see Carli, 2001; Carli 2006; Baxter, 2010; Foschi, 2000). This double standard—that women are judged harshly whether they exhibit a traditionally 'female' communication style or a traditionally 'male' communication style—will be explored in depth shortly.

These contemporary studies on gender and communication typically adopt a socio-cultural understanding of 'gender', rather than discussing biological ‘sex’. According to Walker and Cook (1998), “*sex* refers to the anatomical or chromosomal categories of male and female” (p. 255), while “*gender* refers to socially constructed roles that are related to sex distinctions” (p. 255). In other words, *sex* is a binary “biological given”, while *gender* is a “cultural construct not at all limited to two kinds” (Walker & Cook, 1998, p. 256). That people tend to adopt gender roles that ‘correspond’ to their biological sex is assumed in most studies on gender and communication, though not necessarily a given.

In this sense, research on gender and communication the 1990s and 2000s seems to have been influenced by social psychology research that focused on gender role socialization in childhood and adulthood (for example, Eccles, Jacobs, & Harold, 1990; McHale, Crouter, & Tucker, 1999). In other words, rather than assume that gendered communication styles are a direct result of biological sex, researchers began to accept that such behaviours might be a result of the social enforcement of gender norms, particularly in family units and peer groups.

While a majority of current research in the field of gender and communication adopts a *gender difference* perspective, there are also critics of this approach (see Baxter, 2008; Butler, 1990; Crawford, 1995; Mullany, 2007). According to Baxter (2010), these theorists argue "that the categories of 'men' and 'women' have been used in sweeping and monolithic ways, and that bald associations of speech (or management) styles with gender are far too simplistic" (p.72). Critics of the *gender difference* perspective focus on themes such as the importance of group dynamics and communication cultures (Marra, Schnurr, & Holmes, 2006; Terjesen & Singh, 2008; Wenger, 1998), the importance of context (Holmes, 1995), the ever-changing nature of communication behaviours (Bergvall, Bing, & Freed, 1996; Korabik, 1990), and the influence of mitigating variables such as age, class and ethnicity (Bucholtz & Hall, 1995). These studies are more often qualitative and descriptive in nature, focusing on people's lived experience of communication in the home and workplace.

Despite these critiques, however, a gender-difference perspective "is today actively shared by leaders and theorists alike" (Baxter, 2010, p. 72). Within this paradigm, most academic research supports the existence of a distinct gender divide in communicative practices. As noted, women typically exhibit communication behaviours that are perceived as "collaborative, warm and supportive" while men are more likely to exhibit behaviours

perceived as "status asserting, dominant and negative" (Carli, 2001; Carli & Bukatko, 2000 as cited in Carli, 2006, p. 70). These general tendencies manifest themselves in many specific behaviours, examples of which are listed in Table 1:

Table 1

Differences in Male / Female Communication Behaviours

Men are more likely to...	Women are more likely to…
Speak directly (Peck, 2006, p. 52)	Speak indirectly (Peck, 2006, p. 52)
Promote themselves and their achievements (Buss, 1988)	Refrain from self-promotion (Rudman, 1998)
Maintain eye contact with people while talking but not maintain eye contact while others are talking to them (Dovidio, Brown, Heltman, Ellyson, & Keating, 1988; Dovidio, Ellyson, Keating, Heltman, & Brown, 1988)	Encourage others to speak by nodding or verbally reinforcing others' speech (Carli, 1990; DeFranciso, 1991; Hall, LeBeau, Reinoso, & Thayer, 2001; Marche & Peterson, 1993; Mulac & Bradac, 1995)
Issue directives (Mulac, 1998; Mulac, Wiemann, Widenmann, & Gibson, 1988)	Involve subordinates in decisions (van Engen, 2001)
Interrupt others to gain the floor in conversations (Anderson & Leaper, 1998; Baxter, 2010)	Disclose more personal information about themselves (Dindia & Allen, 1992)

Talk more than women in most social and professional situations (Eakins & Eakins, 1978; James & Drakich, 1993; Lockheed & Hall, 1976)	Use “mitigated speech”, including hedging[1], tag questions[2] and qualifications[3] (Baxter, 2010; Carli, 1990; Holmes, 2001; Mulac & Gibbons, 1993)
Express a willingness to use manipulation and threats to achieve goals (Baxter, 2010; Stephen & Harrison, 1985)	State that their communication style includes touching others and speaking in soft voice tones (Stephen & Harrison, 1985)
Use “hostile” verbs in verbal communication (Baxter, 2010; Gilley & Summers, 1970)	Smile at others (LaFrance, Hecht, & Paluck, 2003; Miller, 2011)
Engage in task-oriented communication (Carli & Olm-Shipman, 2004).	Use stories and metaphors (Leigh, 2010)
Ignore the communications of others (Fishman, 1978; Leet-Pellegrini, 1980)	Ask questions to obtain information (Beckwith, 1995)
Manage others using a task-oriented style of leadership (Eagly et al., 2003)	Manage others using a socio-emotional style of leadership (Eagly et al., 2003)

In summary, women are generally more collaborative, getting feedback and giving credit to others, while men are more likely to take credit for their achievements, issue directives and interrupt others to make a point. As noted, typically the studies cited above refrain from implying that one style is 'preferable' to another, and instead focus on descriptively identifying measurable differences in communication behaviours.

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[1] Hedging refers to adding 'I guess', 'maybe', or 'kind of' to statements (Carli, 2006, p. 71).

[2] A 'tag question' turns a statement into a question, “for example, 'this is important, don't you think?' (Carli, 2006, p. 71).

[3] Women are more likely than men to qualify their opinions by saying 'I may be wrong, but...' or 'this may be crazy, but...' (Carli, 2006, p. 71).

While the studies cited above focus on differences between male and female communicators in general, the study of differences in male and female leadership is also a popular theme in *gender difference* literature. In her analysis of the language of female leadership, Baxter (2010) says behavioural communicative differences have historically been summarized into two different gendered leadership styles—a *task-oriented* style more popular among men, and a *socio-emotional* style more common with women. According to Eagly, Johannesen-Schmidt, and van Engen (2003), “this distinction between task and interpersonal styles was introduced by Bales (1950)” and was developed by early researchers in the 1950s and 1960s (p. 570). Task-oriented communicators are particularly concerned with “instrumental functions related to the achievement of group goals” (p. 67). These communicators are generally direct, assertive, ego-enhancing, and goal-directed (Baxter, 2010, p. 61). Leaders who exhibit this communication style are traditional 'transactional leaders', viewing job performance “as a series of transactions with subordinates - exchanging rewards for services rendered or punishment for inadequate performance” (Baxter, 2010, p. 69).

Socio-emotional communicators, on the other hand, are mainly concerned with “the morale and cohesiveness of the group” (Baxter, 2010, p. 67). These communicators are generally personal, polite, co-operative and process-oriented (Baxter, 2010, p. 59). Leaders who exhibit this communication style have been called *communal* (Carli, 2006), *interactive* (Rosener, 1990), and *relational* (Fletcher, 1999). Each of these descriptors is ascribed to a similar style of leader who uses strategies such as encouraging participation, sharing power and information, enhancing the self-worth of others, and energising others (Rosener, 1990, in Baxter, 2010).

For the most part, research on gender and leadership style transitioned in the 1980s and 1990s from the terms 'task-oriented style' and 'socio-emotional style' in favour of more descriptive and accurate labels (Eagly et al., 2003). New taxonomies (e.g. Bass, 1985) took into account a more contemporary understanding of the role of leaders, emphasizing that "effective leaders inspire their followers and nurture their ability to contribute to the organization" (Eagley et al., 2003, p. 570). This early research eventually evolved into a well-accepted and widely used leadership style taxonomy consisting of *transactional leaders* and *transformational leaders* (Eagley et al., 2003).

Much like task-oriented leaders, *transactional* leaders are focused on achieving the goals of the organization through a punishment and reward system. Transactional leaders provide "rewards for satisfactory performance by followers" and attend to "followers' mistakes and failures to meet standards" (Avolio, Bass, & Jung, 1999 in Eagly et al., 2003, p. 571). According to Eagly et al. (2003), men are most likely to adopt a transactional leadership style. *Transformational* leaders, on the other hand, closely resemble what Baxter (2010) classified as a socio-emotional leader. Transformational leaders communicate the "values, purpose and importance of [the] organization's mission," exhibit "optimism and excitement about goals," and focus on the "development and mentoring of followers" in a way that addresses the individual needs of employees (Avolio, et al., 1999 in Eagly et al, 2003, p. 571). According to Eagly et al. (2003), women are much more likely than men to be transformational leaders.

A transformational style is considered the most effective leadership style. As such leaders are better able to gain the respect of employees, motivate them and support their growth and development (Eagly et al., 2003). Yet, despite the fact that women make excellent transformational leaders, and that such leaders are highly successful, women have

faced significant barriers reaching this level of their career in the STEM fields. Some theorists have argued that the very behaviours that are highly effective in management, such as working toward consensus and supporting others, are perceived as weak and indecisive when exhibited by pre-management professionals, particularly in male-dominated fields (e.g. Baxter, 2010, p. 56-57; Grob, Meyers, & Schuh, 1997). For example, the collaborative spirit exhibited by transformational leaders sometimes manifests in communication behaviours like deferential speech (Carli, 1990) and mitigated speech (Holmes, 2001). These behaviours have been shown, according to some research, to result in listeners perceiving the speaker to be “less competent and knowledgeable” (Carli, 1990, p. 948). In other words, the very communication behaviours that would make a woman an excellent manager may prevent her from ever becoming one.

Contrary to the perspective of early *gender deficiency* researchers, however, simply training women to be 'more like men' in their pre-management career is neither desirable nor effective for several reasons. First, perceptions of gendered communication styles vary depending on the audience. Behaviours like deferential speech (Carli, 1990) and a lack of visual dominance[4] (Ellyson, Dovito, & Brown, 1992) are more pronounced when the audience consists of both men and women. This may be due to the fact that men and women respond differently to female communicators, with men “responding less favourably to agentic women” (Carli, 2006, p. 75) and being more likely to “resist female leadership and evaluate autocratic female leaders more harshly” (Carli, 2006, p. 75). For this reason, women

[4] Visual dominance refers to a speaker’s willingness to occupy space. It is exhibited through non-verbal behaviours such as squaring one’s shoulders to the individual they are speaking to, moving out behind a podium, and maintaining good posture (see Ellyson, Dovito & Brown, 1992)

who use deferential language are perceived as more *likeable* by males but *less competent* than women who speak more assertively (Carli, 1990). Subordinate men may also exhibit typically 'female' communication behaviours in all-male environments, further highlighting the importance of audience (Carli, 1990).

Second, there are a variety of intervening variables that affect how men and women communicate, and how others perceive their communication. The presence of *legitimate power* can be an intervening variable. People in mandated leadership positions - male or female - speak more than their subordinates (Johnson, 1994) and use more 'direct' language with their subordinates (Hirokawa, Mickey, & Miura, 1991) regardless of gender. Given the prevalence of men in positions of legitimate power, this characteristic typically perpetuates existing power relationships and thus disadvantages women.

The expertise of the communicator can also function as an intervening variable. Women use tag questions, hedging and unnecessary qualifications less often when they are more familiar with the topic of discussion (McMullen & Pasloski, 1992) and gender differences in visual dominance disappear when women get special training to “improve their expertise at the task” (Brown, Dovido, & Ellyson, 1990 in Carli, 2006, p. 73). In addition, the question of *who gains* from a person's leadership can function as an intervening variable. That is, men are less resistant to the influence of a woman when they stand to gain by her influence in some way, such as achieving a goal, obtaining money or getting a reward (Shackelford, Wood, & Worchel, 1996).

Finally, simply adopting a typically 'male' pattern of communication has been found to be ineffective, and this practice may have the opposite of the desired effect. According to Carli, LaFleur, and Loeber (1995), “women end up experiencing a double bind. They can either convey modesty and be appealing to others but perceived as less competent, or they

can self-promote and convey competence and risk rejection" (p. 86). This rejection comes in many forms. According to Butler and Geis (1990), "women who behave confidently and assertively are not as well received as men who engage in the same behaviours" (in Rudman, 1998, p. 629). In other words, women who communicate in a typically 'male' way, speaking directly and engaging in self-promotion, "may be evaluated unfavourably because such behaviour violates prescriptive gender-role norms" (Carli, 2006, p. 77). This research has been supported in numerous other studies, such as Carli, Lafleur, and Loeber (1995), Carli (1991), Ridgeway (1982), Giacalone and Riordan (1990), and Wosinska, Dabul, Whetstone-Dion, and Cialdini (1996).

According to Baxter (2010) in her exploration of the language of female leadership, senior women who communicate strongly and directly are often referred to as "scary, bossy, hard, tough, mean, bullying, moody, irrational, bitchy, and so on" by colleagues (p. 15), highlighting the double standard many women encounter. This phenomenon is not new. Lakoff identified this double-standard in 1975, saying:

> A girl is damned if she does and damned if she doesn't. If she refuses to talk like a lady, she is ridiculed and subjected to criticism as unfeminine. If she does learn [ladylike language], she is ridiculed as unable to think clearly, unable to take part in a serious discussion: in some sense as less than fully human. These two choices which a woman has— to be less than a woman, or less than a person—are highly painful (Lakoff, 1975).

More specifically, studies have found that a woman is perceived more negatively than a man when exhibiting directness in communication (Burgoon, Jones, & Stewart, 1975), assertiveness in communication (Kelly, Kern, Kirkley, & Patterson, 1980; Meeker & Weitzel-O'Neil, 1985), leading using an autocratic style (Eagly, Makjijani, & Klonsky,

1992), and engaging in self-promotion (Giacalone & Riordan, 1990; Rudman, 1998; Wosinska et al., 1996).

There is reason to believe this double bind may be even stronger in male-dominated fields. According to Eagly et al. (1992), despite having the same level of competence as male leaders, women leaders are perceived more negatively than men and, while this effect is consistent across 'contexts', it is strongest when women are working in male-dominated fields. Eagly et al. (1992) say:

> The tendency for men to be more favorably evaluated than women was greater for roles occupied mainly by men than for roles occupied equally by both sexes, or for roles where the sex distribution was unclear. These findings are consistent with the conclusions of earlier reviews highlighting the less favorable evaluations that women receive when they violate gender-role expectations by being interviewed for or working in a male-typed job. (p. 16)

This conclusion is supported by numerous other researchers such as Landy and Farr (1980), Nieva and Gutek (1980), Nieva and Gutek (1981), Ragins and Sundstrom (1989) and Olian, Schwab, and Haberfeld (1988).

Interestingly, some studies suggest that this pressure may exist internally as well as externally. Foschi (2000) presents the findings of an experimental study where men and women were both given a task to perform and were told that it was a typically 'masculine' ability. While men and women performed equally well at the task, women “set a stricter standard for themselves than did men” (p. 28). In other words, because they were told that the task was typically performed by men, they held themselves to a higher standard and were displeased with their performance, even when they performed as well (or better) than their

male counterparts (Foschi, 2000). This is concerning, particularly in light of the popular narrative that engineering and mathematics are 'masculine' skills.

To summarize, early- to mid-career women face a double-bind in the professional world. They are judged harshly whether they communicate in a deferential and communal manner, or in an assertive and confident manner. As demonstrated, this double-bind is particularly severe in male-dominated fields such as science, technology, engineering and mathematics. Several studies support the conclusion that, in order for women to exert the same influence as men in the workplace, they must do two things: be more competent than men, and communicate in a way that reflects both competence and communality. Both of these will now be explored.

First, in order for a woman to exert the same influence as a man, she must be perceived as more competent than he is (Heilman, 2001). According to Heilman (2001), “research has shown that despite producing the identical work product as a man, a woman's work is often regarded as inferior” (p. 662). In an experimental study conducted by Carli (1991), undergraduate students were asked to rate the level of competence of male and female professionals with identical performance records. Consistently, the men were rated as being more competent than the women despite the fact that there was no evidence of any difference in their performance (Carli, 1991 in Carli, 1999, p. 84).

Another experimental study originally reported in Foschi (1996) and subsequently identified by Foschi (2000), paired male and female participants. They were asked to complete a repetitious perceptual task and were then shown fake scores which indicated that the man and woman performed equally well (the woman outperforming the man roughly half the time, and vice versa). Then, they were asked to evaluate the competence of both themselves and their partner. Both men and women evaluated the male partner as being more

competent and better at the task (Foschi, 2000) than the female partner. Evidence that "women actually do have to *outperform* men for others to consider them equally competent" (Carli, 1999, p. 84, emphasis added) is supported by numerous other studies (see, for example, Carli, 1997; Eagly, et al., 1992; Foschi, 1996; Heilman, 1995; Sandler & Hall, 1993).

Second, in order to exert the same influence as men in the workplace, women "must combine competence with communality in order to overcome resistance to their influence" (Carli, 2006, p. 83). Communality refers to the tendency to be "warmer, more open, and more socially supportive of others" in communication (Carli, 2006, p. 71). It might involve, for example, combining "non-verbal warmth (such as smiling and nodding) with competence" (Carli, LaFleur, & Loeber, 1995). Goman (2009) also suggests the need for women to strategically use facial expressions of emotion, take up more physical space by putting hands on hips, not be unnecessarily apologetic, and smile to convey warmth. These strategies reflect an effort to combine typically gendered styles of communication -- both a democratic and warm approach typical of women, and an assertive and confident style typical of men. There is some evidence to suggest that by combining these approaches, women may be able to counteract the 'double-bind' they face in the workplace, particularly in male-dominated fields (see Carli, 2001; Carli, 2006; Carli, LaFleur, & Loeber, 1995).

Overall, the research on gender and communication supports the conclusion that men and women communicate differently. In addition, men and women face different consequences as a result of exhibiting the same communication behaviours. Research on differences between men and women supports the conclusion that women often make excellent transformational leaders, yet they are denied these opportunities in part due to the harsher judgement they face in terms of their communication behaviours and perceived level

of competence. There are certain scenarios, including professional negotiations, in which the literature suggests gendered differences in communication may be particularly stark. These ideas will now be explored in depth.

Gendered Differences in Negotiation

Communication differences manifest starkly in performance situations, where people must behaviourally exhibit their communication skills in a time-constrained ‘performance.' Performance situations include making formal presentations, chairing formal meetings, recruiting personnel, training employees, and negotiating with clients, union representatives, employees, and suppliers (Dudman & Wearne, 2003, p. 11-17). These performance situations are the sorts of tasks that Dudman and Wearne (2003) argue are fundamental for managers in engineering. This thesis will focus primarily on communication differences that manifest in negotiation scenarios for two reasons. First, the literature very clearly illustrates that there is a gender divide in negotiation behaviours (see, for example, Babcock & Laschever, 2003). Second, negotiation skills lend themselves well to training interventions, which will be explained in further detail shortly.

Babcock and Laschever’s (2003) seminal work on gender and negotiation, *Women Don’t Ask*, compiles several decades of research on gender, negotiation and communication. This important text summarizes the wealth of research on gender and negotiation, dating back to *The Social Psychology of Bargaining and Negotiation*, written by Rubin and Brown in 1975. Literature on gender and negotiation subsequent to Rubin and Brown's (1975) text has generally focused on the following themes: factors that affect the likelihood of negotiation, including gender, age and experience level (see Babcock, Gelfand, Small, &

Stayn, 2002; Grasz, 2013); gendered negotiation styles (see Kaman & Hartel, 1994); and the benefits that women can potentially achieve through negotiation (see Pinkley & Northcraft, 2000). Each of these themes will be addressed below.

Factors that affect likelihood of negotiation. The literature overwhelmingly supports the conclusion that there is a gender divide in the likelihood of engaging in negotiation. Research into the gender gap in negotiation behaviours has typically been conducted in laboratory settings, with role-playing activities (see, for example, Stevens et al, 1993; Kaman & Hartel, 1994; Watson & Hoffman, 1996). More recent research in the 1990s and 2000s (for example, Babcock, Gelfand, Small, & Stayn, 2002; Bush et al, 1996; Gerhart & Rynes, 1991; O'Shea & Bush, 2002) has instead tended to compare the self-reported results obtained by groups of professionals. For instance, in their study on self-reported negotiation behaviours, Babcock et al. (2002) found that "men are asking for things they want and initiating negotiations much more often than women... men may be initiating four times as many negotiations as women" (in Babcock & Laschever, 2003, p. 3). In the same study, Babcock et al. (2002) reported that "20% of the women polled said that they never negotiate at all" (in Babcock & Laschever, p. 10). A CareerBuilder survey of 2,999 U.S. workers found that "almost half (49 percent) of workers accept the first offer given to them", and "men are more likely than women to negotiate first offers" (Grasz, 2013, para. 1-4).

Babcock and Laschever (2003) found that the differences between male and female negotiation rates are consistent across types of profession and level of education (p. 3). However, they note that the tendency to avoid negotiations is more pronounced among early-career women (Babcock & Laschever, 2003, p. 4). This is consistent with the CareerBuilder survey, which found that "a new hire's willingness to negotiate the first job offer usually comes with more experience. For example, they found that "fifty-five percent of workers 35

or older typically negotiate the first offer, which is significantly higher than workers age 18-34" (Grasz, 2013, para. 3). Similarly, O'Shea and Bush (2002) found that "number of prior jobs does have a relatively strong relationship with the propensity to negotiate" (p. 378), suggesting that prior experience is a strong predictor of willingness to negotiate. Indeed, there is evidence that the disparity between the willingness to negotiate of male and females may be even more drastic in early career; one estimate is that 57% of men negotiate their first salary out of college, while only 7% of women do the same (Sandberg, 2010).

While a majority of studies support the existence of a gender divide in the likelihood of negotiating, as discussed in the preceding paragraphs, several studies have nonetheless refuted the existence of such a divide. O'Shea and Bush's (2002) survey of 300 recent graduates found that men and women engaged in salary negotiation at a comparable rate. Gerhart and Rynes (1991), in their study of factors that affect the likelihood of negotiation, also found that gender in itself was not a determinant of whether or not individuals would negotiate salary offers. They concluded that "it may be structural factors [such as the presence of alternatives, environmental factors, etc.] rather than gender that determine salary negotiation behaviour" (p. 260). However, they also note that their sample was homogenous and would thus experience a "relative homogeneity of structural factors" (p. 260). Therefore, the conclusions of these authors do not preclude the possibility that, in the general population, women might face more structural barriers than men and (as a result) show less propensity to engage in negotiation (Gerhart & Rynes, 1991).

Gendered negotiation styles. Few studies dispute the idea that men and women use different strategies once in negotiations. Typically, these studies find that women employ a more *relational* negotiation style, talking through issues (Babcock & Laschever, 2003), expressing high concern for the other (Rubin & Brown, 1975), being more honest and thus

trustworthy (Buchan, Croson, & Solnick, 2004; Scharlemann, Eckel, Kacelnik, & Wilson, 2001), and making more 'cooperative decisions' (Orbell, Dawes, & Schawrtz-Shea, 1994). These studies have typically ascribed a more competitive style to male negotiators; relative to female study participants, for example, male participants were more confident in their abilities (Barron, 2003), set higher personal goals (Bowles, Babcock, & McGinn, 2004), made more aggressive opening offers (Kray, Thompson, & Galinky, 2001), and exhibited a more 'competitive' negotiation style overall (King, Miles, & Kriska, 1991). These studies typically compare the specific behaviours that male and female negotiators exhibit, either under observation in natural settings or in laboratory settings. These studies are also often hypothetical, asking men and women to complete surveys indicating their likelihood of using various negotiation strategies, or observing participants engaging in a hypothetical negotiation scenario.

A survey-based study by Kaman and Hartel (1994) typifies this research. The researchers provided 238 business students, with roughly equal distribution of men and women, a detailed job description. One group of students was given no salary information, while a second group was provided with a salary range. The researchers then surveyed the participants about what they would expect to be paid in such a role, whether they would negotiate for more than they were offered, and what tactics they would use if they did negotiate. Kaman and Hartel (1994) found that men were more likely than women to say they would use *active negotiation tactics*, such as asking for a higher salary than what had been offered to them, not accepting the first salary offer, and pushing for “the highest salary possible” (p. 189). Conversely, women were more likely to say they would use *passive negotiation* strategies such as “emphasizing the relevance of their education and highlighting their motivation to work hard” (Kaman & Hartel, 1994 in O'Shea & Bush, 2002, p. 367).

Several studies have examined the implications of this 'passive' style on the salary requests made, as well as the salary offers received by women. When men and women are presented with the same job description and list of responsibilities, studies have found that women report lower salary expectations than men do (see, for example, Babcock & Lascehever, 2003; Graham & Welbourne, 1999; Kaman & Hartel, 1994). Babcock and Laschever (2003) theorize that this lack of entitlement is partly the reason why women ask for— and receive— lower salary offers than men do (p. 41-60). The finding that women receive lower offers in salary negotiations is well-supported. Gerhart and Rynes (1991) found that the men and women in their study were equally likely to engage in negotiation, but that “the payoff for such bargaining did vary by gender... [whereas] women's payoff was less than men's” (p. 260). Riley, Babcock, and McGinn (2003) surveyed a cohort of students following graduation and found that women received salary offers of 6% less (on average) and bonuses of 19% less annually (on average) than the men did.

On the positive side, studies suggest there are some areas of negotiation where women naturally excel (Babcock & Laschever, 2003). In integrative bargaining, where the main goal is achieving win-win situations, “women's focus on cooperation and relationship building can be a huge advantage” (Babcock & Laschever, 2003, p. 165). According to Babcock and Laschever (2003),

> A multitude of negotiation studies in the past two decades have shown that a cooperative approach, aimed at finding good outcomes for all parties rather than just trying to 'win', actually produces solutions that are objectively superior to those produced by more competitive tactics. (p. 165)

Women also excel at understanding the other party's needs, demonstrating concern for the other party, and building trust with the other party (see Babcock & Laschever, 2003; Buchan,

Croson, & Solnick, 2004; Orbell, Dawes, & Schawartz-Shea, 1994, Rubin & Brown, 1975; Scharlemann, Eckel, Kacelnik, & Wilson, 2001). Yet, despite these strategic advantages, studies continue to find that women choose to negotiate less often than men (Babcock & Laschever, 2003), and when they do negotiate, they enjoy fewer advantages as a result of negotiations than men do (see, for example, Gerhart & Rynes, 1991).

Benefits that women could potentially achieve through negotiation. A subset of negotiation research has focused on the benefits that can be achieved by engaging in negotiation. This trend is typified by studies that report average increases that real professionals have been able to secure through negotiation (see, for example, Babcock, 2002; Gerhart & Rynes, 1991; Marks & Harold, 2011; O'Shea & Bush, 2002). For example, in their survey of 149 newly hired employees in various industries, Marks and Harold (2011) found that “those who chose to negotiate increased their starting salaries by an average of $5000” (p. 386). In a similar study about the likelihood of graduate students to negotiate their first full-time salaries, Babcock (2002) found that those who negotiated their salaries “were able to increase their starting salaries by 7.4% on average, or $4,053” (in Babcock & Laschever, 2003, p. 2). This single difference, compounded over regular pay increases, “can produce a gain of more than a half-million dollars” over the course of one’s career (Babcock & Laschever, 2003, p. 7). Similarly, Gerhart (1990) found that “one-third of the salary discrepancies between men and women in a large, private firm could be traced back to the differential in the initial starting salary” (in Wheeler, 2012, para. 3).

In addition to direct monetary gains, studies have explored the social costs and rewards of negotiation (see, for example, Bowles & Babcock, 2008; Bowles, Babcock & Lai, 2007; Pinkley & Northcraft, 2000). Some studies have found that women face social costs for negotiating. For example, in their 2007 study of the perception of male and female

negotiators, Bowles, Babcock and Lai found that women who initiated negotiations were perceived as being too demanding and not 'nice'. However, other studies have suggested that this effect is mitigated—and possibly even reversed— when the woman approaches the negotiation with a communal communication style (Bowles & Babcock, 2008). Indeed, other researchers have proposed that negotiation can actually improve how women are viewed by employers (Pinkley & Northcraft, 2000), as it conveys a level of confidence and competence that is often valued in employees. Asking for a high salary (and/or having a record of having a high salary) may also cause the employer to perceive that the candidate is more deserving of good compensation (Babcock & Laschever, 2003). In other words, if a candidate asks for more or can demonstrate a high previous salary, "employers tend to assume that" the candidate is "more capable than those who have been paid less" (p. 56).

To summarize, a meta-analysis of the literature on gender and negotiation reveals that women are less likely to engage in negotiation. They also use different tactics while in negotiations, which can have both positive and negative results. Among the negative results is that women tend to ask for—and receive—lower salary offers than men do. Given the vast benefits of negotiating, including higher salaries and the potential for social rewards, this is arguably problematic in terms of women's likelihood of advancing to management-level positions in STEM. A solution would need to focus on both encouraging women to negotiate, and also giving them the tools to maximize their success once in negotiations. The next section will explore a possible solution in the form of training as an intervention.

Training as an Intervention

Gaining popularity in the 1980s and 1990s, leadership and management training programs in the workplace continue to be a popular method for developing employees' fitness for management-level positions (Hassan, Fuwad, & Rauf, 2010; Johnson, Garrison,

Hernez-Broome, Fleenor, & Steed, 2012; Kass & Grandzol, 2012). These programs have been specifically used to develop managerial skills, including communication skills and negotiation skills, in minority groups that are underrepresented in leadership positions (see Berta, 2009; Goldman, Aldridge, & Worthington, 2004; Johnson & Negron, 2009; NEA, 2007).

There is ample precedence for developing training programs specifically for women in order to alleviate barriers to advancement in the workplace. These interventions have included leadership training for women (for example, Afkhami, Eisenberg, & Vaziri, 2001), management training for women (e.g. Lam, 1990), media-relations training for women (e.g. WMC, 2014), business training for women (e.g. Brandit, 2014), and industry-specific skills training for women (e.g. YWCA, 2014). In most cases, companies will fund motivated women employees to leave the workplace and attend outside training workshops. Training programs for women have also been conducted or hosted in-house in organizations with the internal capacity to do so (for example, Pratt & Whitney Canada).

While negotiation skills training programs are widely available, negotiation skills training programs specifically for women are less common. Such training programs have been recommended in the literature on gendered negotiation styles, including by O'Shea and Bush (2002) and Stevens, Bavetta, and Gist (1993). According to O'Shea and Bush (2002), “it is possible that negotiation skills training could reduce pay disparities between men and women” (p. 367).

In their study on gender differences in negotiation, Stevens et al. (1993) implemented a two-stage negotiation skills training program and found that women, more so than men, benefitted from the training when they felt they had greater 'control' over the negotiation (p. 723). Perceptions of control were measured using a questionnaire which asked participants to

rate their level of agreement with the following statements: I know what to do to succeed, I am able to influence outcomes in the negotiation, and I understand what is expected of me in the negotiation (Stevens et al., 1993, p. 728). In other words, women achieved the most successful negotiation outcomes when they felt they had the knowledge and control to do so effectively. The element of perceived control was not as strong a predictor of success for men, in the same way that it was for women (Stevens et al., 1993).

In practice, numerous negotiation skills training programs for women have been implemented in a variety of contexts, including for Sudanese women (Women for Women International, 2006), young women entrepreneurs (Morrissey, 2013), women in male-dominated fields (Women's Institute of Negotiation, 2014), and mid-career female professionals who require one-on-one coaching (She Negotiates, 2014).

Training evaluation studies centred on negotiation skills training programs for women are few. While Stevens et al. (1991) had both men and women in their negotiation skills training program, they evaluated the program's effectiveness on the basis of gender, enabling a comparison between the program's effectiveness for women and for men. These authors measured the effectiveness of the program exclusively in terms of participants' ability to behaviourally exhibit negotiation skills six months after participating in the workshop. In a similar study, Davidds (2010) sampled 700 women who had participated in a mixed-gender negotiation training program and interviewed them about their experience. Interview questions focused on whether participants had been able to apply skills in the workplace after completing the training program. Ultimately, Davidds (2010) found that many women were not using their negotiation skills because “they believed that utilizing many of the negotiation tactics they learned compromised their personal values” (2010, para.

1). She concludes that negotiation skills training programs for women alone, which can address the issues and concerns women have about negotiation, is required.

Training is a well-accepted intervention in cases where new skills might be beneficial in the workplace. It is widely accepted in both academic literature and corporate practice as the method for addressing such concerns. Training programs specifically for women— including negotiation skills training programs for women— have been used by organizations as a means of addressing barriers facing women in the workplace. That said, publicly accessible evaluations of these negotiation skills training programs for women are very uncommon. The evaluations that do exist are not comprehensive, focusing solely on behaviour change and ignoring other factors such as short-term reaction, knowledge gains, and longer-term organizational impacts. In order to understand why these elements are important in a comprehensive training evaluation study, training evaluation models will now be explored.

Training evaluation models. It has been established that men and women communicate differently, and that differences in communication skills manifest in negotiation behaviours. It has also been established that negotiation skills training programs have been considered as a possible intervention in order to inform women about differences in negotiation behaviours and encourage increased willingness to engage in effective negotiation. The question becomes: How effective are these training programs in achieving the goal of addressing the gap between men's and women's willingness to engage in negotiation, and the larger issue of barriers to advancement that women face in the workplace? In order to address this question, it is important to explore the various ways in which researchers and training practitioners evaluate the effectiveness of training programs.

Kirkpatrick's' (1976) four-level training evaluation model, which is "the most widely known model for evaluating training programs" (Lawson, 2006, p. 255), is "acknowledged by many practitioners as the standard in the field" (Holton, 1996, p. 5). This four-level training evaluation model focuses on the effects of training chronologically, ranging from immediate individual reactions to long-term organizational impacts. This is essentially a behaviourist model which implies that participants can 'receive' knowledge in a time-bound training workshop, retain that knowledge, and then apply that knowledge in the work environment (through changed behaviours) at a later date. First developed by Kirkpatrick (1976), the model has been subsequently revised and rearticulated on numerous occasions, with the latest revision being published in 2006 by Kirkpatrick and Kirkpatrick.

The Kirkpatrick and Kirkpatrick (2006) training evaluation model guides this thesis, grounding the research questions, informing the design of data collection tools, and guiding the data analysis and discussion. The literature on this training evaluation model, including a broad description of the model, critiques of it, and studies that have implemented it, will now be explored. The subsequent section will specifically justify the selection of this model as the methodological grounding for this thesis, and identify the various ways in which this thesis is structured and guided by the Kirkpatrick model.

As noted, the Kirkpatrick model focuses on the impacts of training on the individual and the wider organization. The model progresses chronologically, beginning with the participants' immediate reaction to the workshop, and ending with the long-term organizational impacts achieved by the training workshop. While this model has been critiqued, it is widely accepted in the training evaluation community as an effective evaluation model (see Lawson, 2006; Holton, 1996). It is valuable because it covers a breadth of possible impacts, ranging from the minute (a participant enjoyed their afternoon

training session) to the monumental (an organization's culture has shifted as a result of the training intervention). Each of the four stages of the model, as presented in Lawson (2006), will now be explored.

Level 1: Reaction. The first stage of the Kirkpatrick and Kirkpatrick (2006) training evaluation model is reaction, which evaluates how participants *felt* about the training experience. This level of evaluation is conducted immediately after the training intervention ends. Its focus is on the emotional response to the training. This level of evaluation is typically measured using Likert-scale responses to survey questions such as "I enjoyed the training," "The training met my expectations," and "I would recommend this training to a friend". These short surveys are typically referred to as "smile sheets", as they tend to remain on the surface level and evaluate emotional response (Lawson, 2006, p. 256). Level 1 evaluation can be useful for determining the level of trainee satisfaction and identifying whether or not there are surface-level changes that should be made to the training program in order to make it more enjoyable for participants (Lawson, 2006, p. 256).

Level 2: Learning. The second stage of the Kirkpatrick and Kirkpatrick (2006) training evaluation model is *learning*, which assesses whether participants demonstrate an *increase in knowledge*. This level of evaluation is conducted either during the training session or immediately after the training session ends. Its focus is on the participants' short-term retention of facts learned during the training intervention. The most common methods to evaluate learning are "tests, observation, and interviews, with tests being the most frequent" (Lawson, 2006, p. 260). Skill-testing questions, administered verbally in interviews or by paper survey, range from short answer to multiple choice and often focus on the key concepts articulated during the workshop. Level 2 evaluation can also be gathered through

observational methods, using strategies such as "role plays, case studies, [and] exercises" (Lawson, 2006, p. 256).

Level 3: Behaviour. The third stage of the Kirkpatrick and Kirkpatrick (2006) training evaluation model is *behaviour*, which measures the extent to which new knowledge is applied on the job. This level is sometimes referred to as *transfer*, because it aims to "determine [the] extent to which participants have transferred what they learned in the session to the actual work situation" (Lawson, 2006, p. 256). This level of evaluation is conducted 3 to 6 months after program completion (Lawson, 2006, p. 256) since it is important to allow enough time for the participants to incorporate new knowledge into their behavioural routines. Methods of evaluating *behaviour* include surveys, interviews, and observation-based methods (Lawson, 2006).

As noted, the third level of the Kirkpatrick and Kirkpatrick (2006) training evaluation model measures the degree to which participants have been able to transfer new skills back to the workplace. Skills transfer following training has been a topic of significant interest for training and education scholars (see, for example, Broad & Newstrom, 1992; Burke & Hutchins, 2007; Rouiller & Goldstein, 1993). These studies generally support the conclusion that very few trainees (estimates range from 10% to 50%) actually change their behaviour in the workplace after participating in a training program (Georgenson, 1982; Saks, 2002). A variety of studies have been conducted in order to determine the variables that impact the level of success of a workshop in terms of encouraging behaviour transfer. Variables identified by researchers have included participants' level of self-efficacy (Harrison, Rainer, Hochwarter & Thompson, 1997; Holladay & Quinones, 2003; Mathieu, Martineau & Tannenbaum, 1993), motivation to engage in training (Chiaburu & Marinova, 2005; Facteau, Dobbins, Russell, Ladd & Kudisch, 1995), personality type (Colquitt et al., 2000; Machin &

Fogarty, 2004; Naquin & Holton, 2002), and the perceived utility or value of the skills being learned (Baumgartel, Reynolds & Pathan, 1984).

While these studies all focus on the personality, opinions or understandings of the individual learner, there is a subset of training transfer literature that focused on what is called the *transfer climate* (Burke & Hutchins, 2007). The most significant element of a transfer climate, according to Burke and Hutchins (2007), is the presence of supervisory or peer support in the workplace. According to Burke and Hutchins (2007), "the role of supervisors in influencing and supporting trainee transfer has been widely supported in both empirical and qualitative studies (Brinkerhoff & Hontesino, 1995; Broad & Newstrom, 1992; Burke & Baldwin, 1999; Clarke, 2002)" (p.281). Similarly, peer-support has been found to have a positive impact on training transfer in numerous studies (Chiaburu & Marinova, 2005; Facteau et al., 1995; Hawley & Barnard, 2005). Other relevant elements of the *transfer climate,* which can affect levels of transfer, include the opportunity to perform (Brinkeroff & Montesino, 1995; Clarke, 2002; Gaudine & Saks, 2004; Lim & Morris, 2006), the degree to which learners are *expected* to transfer their training (Baldwin, Magjuka, & Loher, 1991; Brinkerhoff & Montesino, 1995; Kontoghiorghes, 2002) and the strategic link between training goals and departmental / organizational goals (Lim & Johnson, 2002; Montesino, 2002).

Level 4: Results. The final stage of the Kirkpatrick and Kirkpatrick (2006) training evaluation model is *results*, which gauges the long-term organizational impact of training. Long-term organizational impacts might relate to production output, sales, operating costs, customer satisfaction, safety record, turnover rate, absenteeism, employee satisfaction, or any other organizational goal the training was designed to address (Lawson, 2006, p. 265). This level of evaluation is conducted at a significant interval after the training intervention ends,

often at least six months after the intervention (Lawson, 2006, p. 256). This level of training evaluation allows an organization to determine the degree to which the training program has contributed to organizational goals (Lawson, 2006, p. 256). Methods of evaluating this vary greatly depending on the organizational impact being measured, but would include methods such as interviewing, surveying, cost/benefit analyses, and the tracking of operational data (Lawson, 2006).

The Kirkpatrick and Kirkpatrick (2006) training evaluation model has been criticized by several theorists in the decades since its original publication in 1976. Those who criticize the Kirkpatrick model tend to maintain that it is overly simplistic and makes assumptions that do not necessarily hold up under scrutiny. Specific examples of critiques include the argument that the model does not differentiate between facts and skills (Kraiger et al, 1993), that it is not theoretically grounded (Holton, 1996), and that it assumes causal relationships where none have been empirically demonstrated (Alliger & Janak, 1989).

In his critique of Kirkpatrick's evaluation model, Holton (1996) argues that staged models of training evaluation are best described as *taxonomies* rather than fully-fledged evaluation theories. Taxonomies are simply classification schemes that “do not fully identify all constructs underlying the phenomena of interest” (Holton, 1996, p. 6). This particular shortcoming, Holton (1996) argues, makes staged models such as Kirkpatrick's particularly difficult to validate with evidence. “Although the Kickpatrick model is elegant in its simplicity and has contributed greatly to [human resources development]”, Holton (1996) says, “the lack of research to develop further a theory of evaluation is a glaring shortcoming for the field. If HRD is to continue to grow as a profession, an evaluation model grounded in research is necessary” (p. 6).

Alliger and Janak (1989) identify three problematic assumptions of the Kirkpatrick staged training evaluation model. The first assumption Alliger and Janak (1989) take issue with is that “the levels are arranged in ascending order of information provided” (p. 331). In other words, researchers and trainers have made the mistake of assuming that the 'higher' the level of evaluation, the more valuable the information obtained (Alliger & Janak, 1989). This is problematic for several reasons. First, this assumption does not account for the fact that not all training is intended to create impact at all levels. As Alliger and Janak (1989) note, “programs designed to instill company pride or rejuvenate employees may be realistically expected to have impacts at the reaction level only”, while “training that is limited to inculcation of company history or philosophy may, in some cases, be best and most appropriately measured by growth in knowledge” (Alliger & Janak, p. 332-333). This assumption is also problematic because it puts great emphasis on organizational achievements like profit (what Alliger and Janak (1989) call the *dollar criterion*) while devaluing less measurable—but arguably equally important—impacts on the individual level.

The second problematic assumption made by Kirkpatrick and those who use his evaluation framework is that “the levels are causally linked” (Alliger & Janak, 1989, p. 331). This assumption is illustrated by statements such as “training leads to reactions which lead to learning which leads to changes in job behaviour which lead to changes in the organization” (Hamblin, 1974 in Alliger & Janak, 1989, p. 332). In other words, some studies that adopt Kirkpatrick's four-level evaluation model assume that if participants react more favourably to the training (level 1 evaluation), this attitudinal change will cause a related increase in how much they learn (level 2 evaluation), and so on (Alliger & Janak, 1989, p. 334). While this

causal link may hold true in some cases, it is not always clear and should certainly not be assumed (Alliger & Janak, 1989).

The final problematic assumption made by Kirkpatrick and those who use his four level evaluation framework is that “the levels are positively intercorrelated” (Alliger & Janak, p. 331). In other words, some people assume that all levels of the Kirkpatrick model are connected to one another and that a 'good' training session will achieve favourable results at every level. Alliger and Janak's (1989) meta-analysis of training evaluation studies demonstrates that this interconnectedness between the levels is not often supported by empirical data. In fact, of the studies they analyzed, none were able to report statistically significant correlations between the levels (Alliger & Janak, 1989, p. 335).

Despite these critiques, there are not many alternative evaluation models. Phillips' (2003) has proposed a five-level model which merely adds an additional level—value for money—to Kirkpatrick's training evaluation model. Holton (1996) proposed a training evaluation model that assesses the outcomes of training interventions on three levels: learning, individual performance, and organizational performance (Holton, 2005, p. 37). This model “addressed one of the biggest risks of the four-level [Kirkpatrick] model, specifically, that any failure to achieve outcomes from an intervention would be attributed to the intervention itself when it could well be due to moderating variables” (Holton, 2005, p. 37). Holton's (1996) model addresses this concern by taking into consideration intervening variables such as motivation of the participants, external events, and the organizational 'climate' (Holton, 2005, p. 38).

Russ-Eft and Preskill (2005) similarly developed their training evaluation model in reaction to the perceived over-simplicity of Kirkpatrick's model. The focus on measuring return on investment (ROI) in order to measure organizational results, they argue, “does not

provide the kind of information needed by decision makers" (Russ-Eft & Preskill, 2005, p. 71). Instead, Russ-Eft and Preskill (2005) propose "a systems model that examines the effect of organizational and environmental factors on the intended outcomes of an HRD initiative or program" (p. 71).

Caffarella's (1988) training evaluation model identifies four possible evaluation foci, which are as follows: participants' learning; participants' job performance; organizational policies, procedures, practices and functions; and training unit's policies, procedures, practices and functions (Cafferella, 1988, p. 192). Unlike Kirkpatrick and Kirkpatrick's (2006) four-level evaluation model, Caferella's (1988) training evaluation model accounts for the fact that different training programs have different goals, and the objective isn't always on creating long-term organizational impact.

Despite the critiques of Kirkpatrick and Kirkpatrick's (2006) training evaluation model, no alternative evaluation framework has ever gained the same level of use or esteem. As a result, it remains the most viable training evaluation model. That said, it is important to acknowledge the critiques and concerns associated with this model and to take them into account in study design, data collection and data analysis. For example, it is possible to use Kirkpatrick and Kirkpatrick's (2006) training evaluation model without committing some of the assumption errors identified by Alliger and Janak (1989). Similarly, it is possible to use the Kirkpatrick model and still explore intervening variables such as motivation and environmental factors, as Holton (1996) and Russ-Eft and Preskill (2005) suggest. Examples of training evaluation studies, many of which use Kirkpatrick and Kirkpatrick's (2006) evaluation model, will now be explored.

Training evaluation studies. There is no shortage of short-term training evaluations that assess programs at the early levels of the Kirkpatrick model (see, for example, Desai,

Philpott-Howard, & Caswell, 2000; Matthieu, Cross, Batres, Flora, & Knox, 2008; Tierney, 1994). Countless examples could be named. These studies typically focus on how participants reacted to the training, using questionnaires directly after the training ends to determine if the program was well liked. These studies also focus on how well participants were able to retain the information they learned in the short term.

For example, Tierney (1994) evaluated a suicide intervention training program based on a pre- and post- test of participants. On the basis of those results, he concluded that the workshop had been successful in creating learning gains for participants. In a 2000 study of an infection control training program, Desai et al. concluded that the program was “easy and enjoyable” and resulted in significant learning gains. Matthieu et al. (2008) administered a test prior to participation in a workshop for healthcare providers who work with veterans and another test directly after in order to demonstrate that the workshop resulted in “a significant difference in knowledge [...] from pre to post” (p. 148). As seen, all of these studies focused on either (or both) the *reaction* of participants to the program and the short-term *learning* gains achieved through participation.

Many organizations and theorists never move beyond this cursory level of training evaluation. According to Lien, Hung and McLean (2007), “many organizations either ignore training evaluation or approach it through reaction only” (para. 6). Indeed, Surgue (2003) reports that 75% of organizations surveyed by the American Society for Training and Development only evaluate their training at the reaction level. When Clegg (1987) asked organizations to indicate on a survey how they evaluate their management training programs, they reported that the most common methods of evaluation were an 'end-of-course student course evaluation sheet' and an 'end-of course report by instructor'. These evaluation methods fall into the category of reaction and learning level measures. Edens and Bell's (2003) meta-

analysis of training evaluations revealed that significantly fewer evaluators had collected data at the behaviour and results level than at the knowledge level. The reluctance to collect data at the higher levels of Kirkpatrick and Kirkpatrick's (2006) training evaluation model may be due to the high cost of conducting such evaluations (Salas & Cannon-Bowers, 2001).

Nevertheless, such higher-level training evaluations occasionally appear in the academic literature. Terrion, Philion and Leonard (2007) evaluated the University of Ottawa' s peer-mentoring training program at all four levels of the Kirkpatrick model, using post-workshop questionnaires to evaluate reaction and learning, and focus groups to evaluate behaviour and results. While Morey et al. (2002) don not use Kirkpatrick's language, they evaluate a medical training program on dimensions that broadly correspond to the first three levels of Kirkpatrick's model. Most notably, they used observational techniques to evaluate whether the training program had the desired impact on clinical error-rate once participants had returned to the workplace. Aragon-Sanchez, Barba-Aragon, and Sanz-Valle (2010) conducted an evaluation of several training programs conducted in Spain, specifically focused on evaluating the programs in terms of organizational results. Depending on the training program, the results measured included staff turnover, labour hours per product, customer satisfaction ratings, and overall level of profitability (Aragon-Sanchez et al., 2010). Ultimately, they conclude that the companies who invested the most in training reaped the most organizational 'rewards' and showed the highest profit margins (Aragon-Sanchez et al, 2010, p. 970). This study typifies a level 4 Kirkpatrick evaluation, as it is principally concerned with long-term organizational impacts.

Similar higher-level training evaluations include Adams and Tait's (2004) evaluation of the Ministry of Human Resources' *Training for Jobs* program, Laing's (2009) study on the impact of training on worker performance and productivity in public sector organizations,

and Ibarraran and Shady's (2008) evaluation of the long-term effectiveness of jobs training programs in Latin America. In each of these studies, the evaluation was focused on either— or both— the *behaviour* and *results* levels of the Kirkpatrick and Kirkpatrick (2006) training evaluation model. In other words, the evaluations focused on either the degree to which participants were able to transfer their new skills back to the workplace, or on what longer-term organizational impacts were achieved as a result of the training program.

Few studies have focused specifically on the effectiveness of negotiations skills training programs. Durlach, Wansbury, and Wilkinson (2008) evaluated the effectiveness of a negotiation skills training program for Iraqi soldiers at the reaction and learning levels of Kirkpatrick's model. They did so using a simple scenario-based questionnaire, administered both before and after participation in the program. In general, scores increased as a result of having participated in the program, suggesting that short-term knowledge gains were achieved. Emmett (2009) conducted an evaluation of a negotiation skills training workshop delivered at Schneider Electric in Ireland. The two day training program with a total of 11 participants was evaluated in terms of *reaction* and *learning*, both measured using a post-workshop questionnaire. Level 3 evaluation was also attempted using this questionnaire, with questions such as “What percentage of new knowledge and skills learned from this training do you estimate you will directly apply to your job?” (p. 10). These training evaluations support the conclusion that negotiation skills training programs, which can be extremely effective, are well-suited to evaluation using the Kirkpatrick model.

Given the widespread acceptance of this evaluation framework, this study is modelled on Kirkpatrick and Kirkpatrick's (2006) four stages of training evaluation. For the purpose of this thesis, all four stages of training evaluation—described in detail above—will be examined, with a focus on the first three stages. This framework (informed by Kirkpatrick

and Kirkpatrick's 2006 training evaluation model) provides the basis for the structure of this thesis, informing each of the research questions, as well as the questionnaire and interview guide, and data analysis process. This framework was selected because it is a well established and accepted grounding for training evaluation studies, as demonstrated earlier. More information on how the Kirkpatrick model has informed the methodology of this thesis will be explored in chapter 3.

Research Questions

The research goal and subsequent research questions will now be presented, followed by a short explanation of how this thesis contributes to gender studies and training evaluation literature.

Research goal. Situated within gender studies and training literature, the purpose of this research is to explore the effectiveness of negotiation skills training programs as a possible option for alleviating barriers faced by women in male-dominated fields.

Research questions. The broad research question of this thesis is as follows:

> ***RQ:*** What are the impacts of CWSE-ON's negotiation skills training program in terms of participants' reaction, knowledge, application of new skills to the workplace, and organizational results, and what can we learn from this?

This broad research question is made more manageable and more easily operationalized by dividing it into four distinct sub-questions based on the Kirkpatrick and Kirkpatrick (2006) training evaluation model. Each question uses the identifier 'workshop participants' to refer to participants of the CWSE-ON negotiation skills training workshops. The first sub-questions address the *reaction* and *learning* phases of Kirkpatrick and Kirkpatrick's (2006) model, and therefore address short-term impacts of the program:

SQ1: How do participants *react* to CWSE-ON's negotiation skills training workshop?

SQ2: Do participants demonstrate short-term retention of new knowledge after completing CWSE-ON's negotiation skills training workshop?

The following two sub-questions, which address the latter two phases of Kirkpatrick and Kirkpatrick's (2006) training evaluation model, *behaviour* and *results*, form the core of this thesis. They are as follows:

SQ3: Were participants of CWSE-ON's negotiation skills training workshop able to apply new knowledge in the workplace? *(If so, what factors facilitated the application of this knowledge? If not, what factors hindered the application of this knowledge?)*

SQ4: Do participants of CWSE-ON's negotiation skills training workshop perceive that any organizational impacts have been, or could be, achieved as a result of their participation in the training session? *(If yes, what factors could potentially facilitate the creation of organizational change? If no, what factors could potentially hinder the creation of organizational change?*)

A fifth sub-question speaks to the broader implications of these findings for the design and delivery of training.

SQ5: What implications do these findings have for the design and delivery of training?

Contribution / Objective

Having presented the relevant academic literature, and identified the research questions of this study, let us now explore how these research questions are designed to address gaps in the literature. This thesis is designed to address gaps both in training

evaluation literature, and in the body of literature on gendered communication and negotiation. First, while a wealth of training evaluation studies that assess the effectiveness of training programs at the early levels of Kirkpatrick's model exist, complete evaluations that address all four levels are rare. One objective of this thesis is to address this gap by *comprehensively* evaluating the effectiveness of a training program using the Kirkpatrick and Kirkpatrick (2006) training evaluation model.

Second, studies on gendered communication and negotiation have typically focused on descriptively identifying gendered differences in behaviours. These studies might explore gendered differences in communication and negotiation behaviours, or conduct research to determine reactions to these behaviours. A classic example would be Babcock and Laschever's (2003) seminal work on women and negotiation, which provides research to demonstrate that men and women negotiate differently, and achieve different results from engaging in negotiation. While such studies are an important account of the challenges faced by women, it is much less common for academic research to propose, implement and evaluate an intervention designed to alleviate said barriers. A second objective of this thesis is to address this gap by presenting a specific intervention, and providing a complete analysis of its effectiveness.

Chapter 3: Methodology

This methodology chapter consists of two sub-sections. First, the research strategy is presented. This section outlines the mixed-method research strategy employed by the researcher and justifies why this methodological approach was chosen to explore the central research questions of this thesis. Literature will be presented to justify the use of quantitative surveys and qualitative semi-structured interviews for the purpose of training evaluation studies. Second, the specific methods and procedures that were employed will be presented

in detail. The data collection and data sampling procedures, as well as the data analysis process, will be described in depth.

Research Strategy

This study is an evaluation of CWSE-ON's negotiation skills training workshop for early- to mid-career women in male-dominated fields. The thesis evaluates the training based on Kirkpatrick and Kirkpatrick's (2006) four level training evaluation model, which was explained in depth in the literature review (see Chapter 2). The evaluation explores how participants *reacted* to the training, whether they *learned* new skills, whether they could *apply* newly learned skills to the workplace, and whether such training could/would have impacts on an *organizational* level. This mixed-method study was undertaken using two distinct methodological tools: questionnaires and interviews.

The quantitative questionnaire data and qualitative interview data was initially collected by CWSE-ON and then analysed for the purpose of this thesis. Ethical approval for secondary use of data was granted by the University of Ottawa Office of Research Ethics and Integrity (see Appendix C). The research strategy, consisting of the analysis of secondary questionnaire data and interview data, will now be described in depth.

The literature presents a well-established method for conducting studies on training evaluation. Kirkpatrick and Kirkpatrick's (2006) four-level training evaluation model, in particular, lends itself to a specific methodological approach. A complete description of the literature around training evaluation models generally—and Kirkpatrick and Kirkpatrick's (2006) model specifically—is presented in chapter 2. Only the literature that sets a precedent for a particular methodological approach will be presented here.

According to Lawson (2006), the most appropriate method for evaluating participants' *reactions* is a survey, also known as a “smile sheet” (p. 256). Smile sheets

typically include Likert-type measures to assess participants' overall reaction to the program, with options ranging from 1 (poor) to 5 (excellent) (Leatherman, 2007, p. 250). *Reactions* include measures of utility (whether or not participants found the workshop useful) and affect (whether they liked the workshop and found it enjoyable). Surveys are an appropriate method when one wants to collect the same information from a large group of people at the same time (Neuman & Robson, 2011). Given that reaction data is best collected immediately after the training ends, surveys are an appropriate method. In addition, surveys lend themselves well to simple data, such as the data sought in reaction-level evaluations. In other words, the data collected for this level is often very simple and does not require in-depth follow-up or probing, making surveys an appropriate methodological tool.

Surveys are also appropriate for evaluating participants' *learning* (Lawson, 2006). Lawson refers to this measure as a "post-test" (Lawson, 2006, p. 256). Leatherman (2007) supports this conclusion, suggesting that multiple choice tests are "the best way to accurately determine the knowledge gained by training participants" (p. 251). Evaluating learning should occur directly after training. Therefore, a method that allows collection of the same information from a large group of people at the same time is appropriate (Neuman & Robson, 2011). Learning surveys often include simple short answer or multiple choice questions, which enable a trainer to evaluate whether the participants have retained some of the basic concepts taught during the workshop. Often, it is recommended to use a pre-test of knowledge as well, so learning gains can be identified (Lawson, 2006).

Some studies have also used behavioural tests of knowledge, such as role-plays, case studies or exercises (Lawson, 2006, p. 256). This approach allows the trainer to observe changes in behaviour that have occurred as a result of participation in the training. This approach usually requires a pre-test of behaviour as well. An example would be video

recording a participant giving a short speech at the beginning of a training workshop on communication skills, recording him or her giving another short speech at the end of the training workshop and subsequently evaluating whether a change in behaviour has taken place (J. L. Terrion, personal communication, October 14, 2013). While this approach has some benefits, it requires a large amount of time to execute and lends itself best to specific, observable skills that can easily be demonstrated in a controlled training environment.

When the researcher does not have this kind of time or the evaluation does not lend itself to observable skills, there is a strong precedent in the literature for collecting both *reaction* and *learning* data using surveys. In their study of management of aggression training in the health-care sector, Beech and Leather (2006) used Kirkpatrick's four-level training evaluation model to measure reaction and learning, specifically recommending "multi choice tests" as a data collection tool (p. 36). In his meta-analysis of how companies evaluate their management training programs, Clegg (1987) found that over 30% of companies frequently measured participants' reactions using a survey-style evaluation sheet (p. 69). This technique was by far the most common method of evaluating reaction. Furthermore, over 25% of companies reported using an end-of-course survey-style test to measure learning, with some using a control group and others not (Clegg, 1987, p. 69). This was also the most commonly used method of measuring learning. Numerous training textbooks (see Lawson, 2006; Leatherman, 2007) recommend this specific methodological approach for measuring reaction and learning.

Level 3 of Kirkpatrick and Kirkpatrick's (2006) four-level training evaluation model (*behaviour*), arguably more complex than the first two levels, requires a different methodological approach. Training evaluation studies have measured *behaviour* (also called *transfer of skills to the workplace*) in numerous ways. In his meta-analysis of how companies

evaluate their management training programs, Clegg (1987) found that the most common method of evaluating transfer of skills to the workplace was interviews. In their study on transfer of interpersonal communication skills, Axtell, Maitlis, and Yearta (1997) used questionnaires asking trainees to rate “the degree to which they felt they had transferred a list of course skills to the workplace (on a five-point scale from 'not at all' to 'a great deal')” (para. 15). Similarly, in their evaluation of the University of Ottawa's peer mentoring training program, Terrion et al. (2007) evaluated transfer of learning using focus groups.

In contrast to asking participants to report on their perceptions of behavioural change—which can be limited by many factors—Leatherman (2007) recommends using an observation-based method where the trainer observes trainees on-the-job and completes a “behavioural check sheet” to record participants' ability to apply new skills (p. 254). While self-reports of behaviour change are valuable (Axtell, Maitlis, & Yearta, 1997), observation-based methods are arguably a more reliable way to determine whether real behaviour change has taken place (Leatherman, 2007).

That said, observation-based methods are time-consuming and more complicated when access is difficult to secure. In cases where observation-based methods are not feasible, Lawson (2006) recommends using interviews to measure transfer of skills to the workplace, noting that interview questions should be “carefully designed to focus on specific applications and behaviour changes” (Lawson, 2007, p. 264). The behaviour stage is focused on the complex process of applying new skills to the workplace, so it is valuable to use a method that allows in-depth responses and probing. Interviews are fitting for instances where open-ended and complex questions are necessary (Neuman & Robson, 2011, p. 291), making it well-suited for measuring this stage. For the purpose of this study, interviews are more appropriate than questionnaires because they allow for probing responses and acquiring rich

qualitative data. Furthermore, interviews are more appropriate than observation-based methods in instances (such as this one) where the trainer does not have direct access to the participants' workplaces after the training ends. Also, observation-based methods are time consuming and access is challenging, making interviews more feasible for the purposes of a master's thesis.

Level 4 of Kirkpatrick and Kirkpatrick's (2006) training evaluation model is organizational *results*. This level is typically evaluated by reviewing whether changes have occurred over the long-term in major organizational metrics, such as production output, sales, or turnover rate (Lawson, 2007, p. 265). In the case of the specific training program being studied for this thesis, an ideal level 4 evaluation would likely involve measuring the career progression of participants (whether they receive promotions or advance to management, for example) and comparing that with a control group of women within the same organization. According to Lawson (2007), evaluating training at this level is "both difficult and time-consuming ... [and] quite costly" (p. 266). Such an evaluation is outside of the scope of this thesis. Instead, Level 4 was explored in terms of participants' perceptions of the workshop's *potential* to create such impacts. In other words, interviewees were asked to reflect upon whether such a workshop had the potential to create organizational impacts, and if so, what those impacts might be. There is precedent in the literature for evaluating programs on Kirkpatrick's fourth level by directly asking participants to reflect on the potential of the workshop to create organizational impacts (for example, see Terrion et al., 2007).

To summarize, the literature provides a well-established methodological approach for conducting training evaluation studies. Specifically, it is generally accepted that *reaction* and *knowledge* stages can be evaluated using survey data, while interviews are appropriate for

collecting data on the *behaviour* level. Given the strong precedent for collecting evaluation data in this manner, both in the academic literature and general management practice, the choice was made to evaluate CWSE-ON's negotiation skills training program using this methodological approach. *Results* data was also collected using interviews, though the focus was on participants' perceptions of *possible results*, rather than actual organizational results. CWSE-ON collected the data and provided it to the researcher, who then analysed the data in order to evaluate the effectiveness of CWSE-ON's negotiation skills training program.

Methods and Procedures

The following section summarizes the particular methods and procedures adopted. The first section focuses on the data collection process. Included is a detailed description of how the sample was selected, along with a description of how the research tools (survey and interview guide) were designed. The second section focuses on the data analysis process. Included is a description of how both the quantitative and qualitative data were analysed by the researcher.

Sample. The original population of workshop participants was selected using a convenience sampling method. Two of the five workshops were hosted in Ottawa and were advertised online to early- to mid-career women in STEM; registration was first-come first-served. The other three workshops (held in Mississauga and Waterloo) were hosted by partner organizations, Pratt & Whitney Canada and the University of Waterloo, respectively. Recruitment for these workshops was arranged by the host organization. This original phase of convenience sampling yielded a population of 47 workshop participants in the target audience. In cases where the participants did not meet the requirement of working or

studying in the fields of science, technology, engineering or mathematics, they were not considered for participation in either round of data collection (survey or interview). Only five participants, all from the first workshop conducted in Ottawa, were eliminated on this basis, due to the fact that this workshop was advertised to communications students as well as students from the target audience. A list of the *eligible* participants appears in table below.

Table 2

Sample of workshop participants

Workshop Location	Total Number of Participants	Number of Participants Who Complete Surveys	Number of Participants Sampled for Interviews
Ottawa, ON	2	2	1
Ottawa, ON	5	4	0
Waterloo, ON	23	20	1
Mississauga, ON	10	6	4
Mississauga, ON	7	5	2
TOTAL	47	37	8

Following participation in the workshop, all 47 workshop participants were asked to complete a survey designed to measure *reaction* and *learning*. As seen in the table above, only 37 participants completed this survey. The reasons for this discrepancy are not known, though it may have been due to time-constraints of participants or fatigue following the half-day workshop. Participants for the interview portion of the data collection were selected based on a convenience sample. Of the 37 participants who completed surveys, 25 indicated that they would be willing to participate in a follow-up interview, and 22 provided valid

email addresses. Each of these 22 participants was emailed in order to book interviews, and the first eight to commit to a time were selected for this phase of data collection. Overall, it was deemed that the sample for the survey and the interview data collection phases adequately reflected the diversity of the original population of workshop participants.

Data collection. This section outlines the data-collection procedure for both phases of data-collection: the initial survey and the follow-up interview. As noted, in order to examine SQ1 and SQ2 (see chapter 2), each workshop participant was asked complete a survey following their participation in the training session. These surveys were developed primarily using standard items created by Leatherman (2007, p. 250-253), with additional content-specific questions being developed by CWSE-ON. Due to the workshop-specific nature of these measures, it was not possible to use validated, pre-existing survey items in all cases. The survey contains a mix of both open-ended and Likert-type scale questions (see Appendix A). The survey is designed to measure the first two elements of Kirkpatrick and Kirkpatrick's (2006) training evaluation model, *reaction* and *learning*, with six questions focused on reaction and two questions focused on learning. In addition, there was one question asking if trainees would be willing to participate in a follow-up interview, as well as a blank field provided for participants' email if their response to this question was “yes”. Participants were not asked any demographic questions that could identify them specifically, such as questions about their name, job title, or income bracket.

Participants were given 10 minutes to complete the survey immediately after the conclusion of the training workshop, and were asked to submit it before leaving the training room. Participants were notified that the responses, which would be analysed for the purpose of evaluating the training program, would be used to create recommendations to CWSE-ON on how better to accomplish the training (See Appendix C for ethical approval). The trainer

was either not present in the room or was otherwise physically separate from the trainees during completion of the surveys. Of the 47 workshop participants, 37 completed and submitted reaction forms following the training session, representing an overall response rate of 79%. Response rates varied between the workshops, ranging from 60% (Mississauga, ON) to 100% (Ottawa, ON). Following collection of the data, CWSE-ON marked each survey with a participant code and a location indicator. These allocations were based on the workshop the participant had attended. For example, if the workshop was conducted in Mississauga, ON the survey might be marked with a designation such as the following: "Participant Code: 5. Location: Mississauga".

In order to examine SQ3 and SQ4, CWSE-ON contacted all of the participants who responded "yes" to the survey question "Would you be willing to participate in a follow-up interview to discuss this training session?" (n=25) and provided a valid email address (n=22). CWSE-ON contacted these trainees by email 4-6 months after the completion of the workshop. Twelve participants responded indicating they were interested in being interviewed, and the researcher selected the first eight to book an interview time. The decision was made to limit interviews to eight due to time and resource constraints. In any case, given that eight interviews yielded rich, qualitative data, this number was chosen as an appropriate cut-off point.

Data collection for Phase 2 was performed using semi-structured qualitative interviews, which is an appropriate method for examining participants' perceptions of their lived experiences (Flick, 2000). Semi-structured interviews allow the researcher to guide interviewees through a series of questions addressing the key issues the researcher wishes to explore (Berger, 2000). Yet they also have the benefit of flexibility, allowing the researcher

"to maintain the casual quality found in unstructured interviews", including probing further when unexpected responses arise (Berger, 2000, p. 112).

A single interview guide was used for all eight interviews (see Appendix B). The interview guide consists of theory-driven and open-ended questions, informed by the four levels of Kirkpatrick and Kirkpatrick's (2006) training evaluation model. These questions were developed by "narrowing [the] central question and subquestions in the research study" into specific interview questions (Creswell, 2007, p. 133). For example, SQ3 was synthesized into questions that address the participant's ability to apply new knowledge in the workplace, such as *describe a scenario in which you used the skills you learned in CWSE-ON's negotiation skills workshop* (if they had previously responded "yes" when asked if they had applied the skills). Where possible, participants were encouraged to provide concrete examples in order to facilitate an understanding of which real-world factors, if any, facilitated or hindered the effectiveness of CWSE-ON's training program.

The interviewer was unrelated to the training sessions, and was unknown to the participants prior to the interviews. In addition to previous experience conducting qualitative interviews, the interviewer also received 2 hours of training from CWSE-ON prior to the data collection. This training session covered topics such as the following: context of the workshops, research questions, the interview guide, and when and how to probe for more information. The training session also included a discussion of the ethical implication of the research and ways to avoid causing any psychological harm to participants. The core of the interviews was limited to 30 minutes, with an additional 15 minutes allotted for equipment set-up, equipment take-down, rapport-building, and the recording of identifying information such as interviewee's field, interviewee's career level, and date/time of the interview. Two interviews took place in-person in a quiet, private room on the University of Ottawa campus.

An additional six interviews took place over the phone. Participants were instructed to find a private place to participate in the telephone interview in the hopes that they would feel comfortable expressing themselves openly. The interviewer noted no difference in the richness of data collected between the two different conditions (J. Colangelo, personal communication, March 24, 2014).

Interviews were digitally recorded and transcribed at a later date. The interviewer also recorded *descriptive* and *reflective* notes by hand during the interview, as recommended by Creswell (2007, p. 135-136), in order to facilitate later theme development. The interviewer took care to apply the same participant code to both the transcript and the notes, which in turn corresponded with the correct participant code on the survey. In other words, if participant #5 completed both a survey and an interview, three documents would be coded with participant code #5: her paper survey, her interview transcript, and the hand-written notes recorded during said interview. Once the participant codes were applied, the interview transcripts, interview notes and paper surveys were all provided to the investigator for analysis.

Data analysis. The initial surveys, transcripts of the follow-up interviews, and hand-written notes recorded by the interviewer were provided to the investigator for analysis for the purpose of this thesis. Methods of analysis were based on well-established procedures for the handling of quantitative and qualitative data. This section outlines the data-analysis procedure for both phases of data-collection -- the initial survey and the follow-up interview. The survey, which contains a mix of both open-ended and Likert-type questions, was analyzed using a mixed qualitative and quantitative approach. The interview gathered qualitative data only.

Qualitative data analysis. Of the 37 completed surveys, only 15 participants responded to the open-ended question. These 15 open-ended responses were analysed using thematic coding, which facilitated the identification of patterns in participants' experiences and perceptions (Berger, 2000, p. 122). Interview transcripts were also analyzed through the use of thematic coding, with the development of codes facilitated through reference to the reflective, handwritten notes taken by the interviewer during the interviews. Thematic coding is the best way to identify patterns in participants' perspectives, behaviours, and ways of thinking (Berger, 2000, p. 122). The process of identifying themes and categorizing statements by those themes is an emergent process. As Neuman (2011) explains, "Those who conduct qualitative studies analyze by organizing data into categories based on themes, concepts or similar features. While doing this, they may also develop new concepts, formulate conceptual definitions, and examine the relationships among concepts" (p. 344).

This emergent process involves three distinct phases of code development. First, in the *open coding* phase, central ideas are labelled and a preliminary list of themes is developed (Neuman, 2011, p. 345). Second, in the *axial coding* phase, the researcher reviews and examines the themes identified during open coding and tries to condense or combine codes into "the axis of key concepts in analysis" (Neuman, 2011, p. 346). Finally, in the *selective coding* phase, the researcher scans all the data available and looks "selectively for cases that illustrate themes" (Neuman, 2011, p. 348). This process was followed for the open-ended survey responses and the qualitative interview data.

For the interviews specifically, each participants' transcript was printed, and different coloured highlighter pens were used to manually identify themes. Printed transcripts were then cut up into the various themes, enabling the researcher to easily look at all the

statements under a certain theme at once. Original transcripts were retained digitally as a reference to identify which participant made each statement.

Quantitative data analysis. All 37 survey respondents answered all Likert-type questions in the survey. As noted, this portion of the survey consisted of two questions designed to test *learning* (skill-testing questions), and six questions designed to test *reaction* (did they like it, did they feel it was useful, etc.). Quantitative data was analyzed using IBM's Statistical Package for the Social Sciences (SPSS, Version 15.0) provided by the University of Ottawa. In order to facilitate analysis, skill-testing questions were re-coded by the correctness of the response (for example, 1 = 0 correct labels on diagram, 2 = 1 correct label on diagram, 3 = 2 correct labels on diagram, and so on). The skill-testing questions were designed in such a way that determining the correctness of a response was unambiguous.

Frequency tables were then developed to summarize the quantitative data. In order to evaluate the data and the relationships between variables, Pearson correlation tests were also performed using every possible pairing of variables. The SPSS output tables, which detail the precise tests run and on which variables, appear in Appendix D.

Chapter 4: Results and Analysis

Results

The quantitative results of the questionnaire will be presented here. Then the significance of both the quantitative questionnaire data and the qualitative interview data will be discussed in depth. Where possible, both sets of data will be used to support conclusions. The presentation of data will be organized by the research questions, which guided the creation of the questionnaire and interview guide.

Demographics. As noted, 37 participants completed questionnaires following their participation in the workshop. These 37 participants were distributed relatively equally

across the locations where the workshop was held, with the response rate ranging from a low of 60% (in Mississauga) to a high of 100% (in Ottawa). Of these 37 participants, 8 were sampled to participate in the interview. Again, these participants were distributed relatively equally, with at least 1 interviewee from each location where the workshop was held.

Frequency tables. The first guiding research question is as follows: How do participants *react* to CWSE-ON's negotiation skills training workshop? This research question was designed to evaluate the workshop at the reaction stage of Kirkpatrick and Kirkpatrick's (2006) training evaluation model, which is focused on whether or not participants 'like' and 'enjoy' the training. This was measured using six 5-point Likert-type scale questions on the survey. The first five questions were phrased as statements (such as "I enjoyed the training I received today") with the response options of *strongly agree*, *agree*, *neither agree nor disagree*, *disagree* and *strongly disagree*. The final reaction-based question asked participants how satisfied they were with the training overall, with the response options of very satisfied, satisfied, *neither satisfied nor dissatisfied*, *dissatisfied*, and *very dissatisfied*. The results of these six Likert-type scale questions are presented in tables 3 to 8, below:

Table 3

Frequency of responses to 'I enjoyed the training I received today'

	Frequency	Percent	Valid Percent	Cumulative percent
Strongly Agree	19	51.4%	51.4%	51.4%
Agree	18	48.6%	48.6%	100%
Total	37	100%	100%	

Participants were presented with the statement 'I enjoyed the training I received today' and asked to indicate their level of agreement. As seen in Table 3, 100% of respondents either agreed or strongly agreed with the statement. Over half of the participants (51.4%) said they strongly agreed that they enjoyed the training.

Table 4

Frequency of responses to 'I found the training I received today to be useful on a professional level'

	Frequency	Percent	Valid Percent	Cumulative percent
Strongly Agree	15	40.5	40.5	40.5
Agree	22	59.5	59.5	100
Total	37	100	100	

Participants were presented with the statement 'I found the training I received today to be useful on a professional level' and asked to indicate their level of agreement. As seen in Table 4, 100% of participants either agreed or strongly agreed with this statement. The most common response (mode) was 'agree', with 59.5% of participants selecting this option.

Table 5

Frequency of responses to 'I found the training I received today to be useful on a personal level'

	Frequency	Percent	Valid Percent	Cumulative percent
Strongly Agree	14	37.8	37.8	37.8
Agree	20	54.1	54.1	91.9
Neither agree nor disagree	3	8.1	8.1	100
Total	37	100	100	

Participants were presented with the statement 'I found the training I received today to be useful on a personal level' and were asked to indicate their level of agreement. Responses ranged from *neither agree nor disagree* (n = 3) to *strongly agree* (n = 14), with no participants saying they disagreed or strongly disagreed with the statement. The most common response (mode) was agree, with 54.1% of respondents selecting this option.

Table 6

Frequency of responses to 'As a result of receiving this training, I feel I would be more confident engaging in a negotiation'

	Frequency	Percent	Valid Percent	Cumulative percent
Strongly Agree	8	21.6	21.6	21.6
Agree	25	67.6	67.6	89.2
Neither agree nor disagree	4	10.8	10.8	100
Total	37	100	100	

Participants were presented with the statement 'as a result of receiving this training, I feel I would be more confident engaging in a negotiation' and were asked to indicate their level of agreement. As seen in Table 6, responses ranged from *neither agree nor disagree* (n = 4) to *strongly agree* (n = 8), with no participants saying they disagreed or strongly disagreed with the statement. The most common response (mode) was *agree*, with 67.6% of respondents selecting this option.

Table 7

Frequency of responses to 'The trainer was credible'

	Frequency	Percent	Valid Percent	Cumulative percent
Strongly Agree	23	62.2	62.2	62.2
Agree	12	32.4	32.4	94.6
Neither agree or disagree	2	5.4	5.4	100
Total	37	100	100	

Participants were presented with the statement 'the trainer was credible' and asked to indicate their level of agreement. Responses ranged from *neither agree or disagree* (n = 1) to *strongly agree* (n = 23) with no participants saying they disagreed or strongly disagreed with the statement. The most common response (mode) was strongly *agree*, with 62.2% of respondents selecting this option.

Table 8

Frequency of responses to 'overall, how satisfied were you with the training you received today'

	Frequency	Percent	Valid Percent	Cumulative percent
Very satisfied	20	54.1	54.1	54.1
Satisfied	17	45.9	45.9	100
Total	37	100	100	

Participants were asked to respond to the question 'overall, how satisfied were you with the training you received today' by selecting either *very satisfied*, *satisfied*, a neutral option, *dissatisfied*, or *very dissatisfied*. Respondents selected either *satisfied* (n=17) or *very satisfied* (n=20), with no respondents selecting the neutral option or either of the disagree

options. The most common response (mode) was *very satisfied*, with 54.1% of respondents selecting this option.

This concludes the presentation of the quantitative survey data addressing the first guiding research question regarding participants' reactions. The second guiding research question is as follows: Do participants demonstrate short-term retention of new knowledge after completing CWSE-ON's negotiation skills training workshop? This research question is designed to evaluate the workshop at the learning stage of Kirkpatrick and Kirkpatrick's (2006) training evaluation model, which is focused on whether or not participants retain information to which they were exposed during training. This was measured using two skill-testing questions on the survey.

The first question asked the participants to recall the meaning of an important acronym that was taught during the workshop. This acronym, which stands for one of the central concepts taught during the course, was selected as a good concept on which to test. The second question asked participants to correctly apply labels to a model of negotiation strategy. Again, this negotiation strategy model, which formed an important part of the training program, was thought to be a relevant and important concept upon which to test the participants. The results of these questions are presented in tables 8 and 9, below:

Table 9

Frequency of correct responses to question 'What does BATNA stand for?'

	Frequency	Percent	Valid Percent	Cumulative percent
Completely correct (all 5 words correctly identified)	10	27.0	27.0	27.0
Somewhat correct (between 1 and 5 words correctly identified)	21	56.8	56.8	83.8
Incorrect (no words correctly identified)	6	16.2	16.2	100
Total	37	100	100	

Participants were asked to identify the meaning of the acronym BAT NA, which stands for 'Best Alternative to a Negotiated Agreement'. 10 participants (27% of total) were able to correctly identify what the BATNA acronym stood for, while 6 participants (16.2% of total) were completely incorrect. The most common result, representing the responses of 21 participants (56.8% of total) was a partially correct answer, with between 1 and 4 words of the 5-word acronym correctly identified.

Table 10

Frequency of correct responses to question 'label the following diagram of the dual-concerns model'

	Frequency	Percent	Valid Percent	Cumulative percent
3 correct labels	22	59.5	59.5	59.5
2 correct labels	6	16.2	16.2	75.7
1 correct label	7	18.9	18.9	94.6
0 correct labels	2	5.2	5.2	100
Total	37	100	100	

Participants were asked to apply labels to a diagram of the Dual Concerns Model of negotiation strategy. Twenty-two participants (59.5% of total) were completely correct, while 2 participants 5.2% of total) were completely incorrect. Thirteen participants (35.1%) were partially correct, providing either 1 (n=7) or 2 (n= 6) correct labels.

Correlation data. As noted in the methodology section, correlation tests (Pearson) were conducted in order to test for relationships between the variables of the survey. Weak and very weak relationships will not be reported here. The moderate and strong relationships will be reported and explored later in the discussion section. Two strong relationships were found. The first strong relationship was found between the variables of overall satisfaction (*overall, how satisfied were you with the training you received today*) and personal usefulness (*I found the training I received today to be useful on a personal level*). This relationship was strong, with a Pearson Correlation score of .628. This relationship can be seen in Table 11, below:

Table 11

Correlation between overall satisfaction and personal usefulness variables

		Overall Satisfaction	Useful – Personal
Overall Satisfaction	Pearson Correlation	1	.628**
	Sig. (2-tailed)		.000
	N	37	37
Useful – Personal	Pearson Correlation	.628**	1
	Sig. (2-tailed)	.000	
	N	37	37

** Correlation is significant at the 0.01 level (2-tailed)

The second strong relationship, unsurprisingly, exists between the variables of enjoyment (*I enjoyed the training I received today*) and overall satisfaction (*overall, how satisfied were you with the training you received today*). This relationship was strong, with a Pearson Correlation score of .622. This relationship can be seen in table 12, below:

Table 12

Correlation between overall satisfaction and level of enjoyment

		Overall Satisfaction	Enjoyment
Overall Satisfaction	Pearson Correlation	1	.622**
	Sig. (2-tailed)		.000
	N	37	37
Enjoyment	Pearson Correlation	.622**	1
	Sig. (2-tailed)	.000	
	N	37	37

** Correlation is significant at the 0.01 level (2-tailed)

Three moderate relationships, found to exist between variables of the survey, will now be presented. One moderate relationship was found between the variables of enjoyment (*I enjoyed the training I received today*) and confidence (*As a result of receiving this training, I feel I would be more confident engaging in a negotiation.*). This relationship was of moderate strength with a Pearson Correlation score of .478. This relationship can be seen in Table 13, below:

Table 13

Correlation between level of enjoyment and increased confidence

		Enjoyment	Confidence
Enjoyment	Pearson Correlation	1	.478**
	Sig. (2-tailed)		.000
	N	37	37
Confidence	Pearson Correlation	.478**	1
	Sig. (2-tailed)	.000	
	N	37	37

** Correlation is significant at the 0.01 level (2-tailed)

A second moderate relationship was found between the variables of personal usefulness and professional usefulness. This relationship was of moderate strength, with a Pearson Correlation score of .501. This relationship can be seen in Table 14, below:

Table 14

Correlation between professional and personal usefulness

		Enjoyment	Confidence
Professional usefulness	Pearson Correlation	1	.501**
	Sig. (2-tailed)		.000
	N	37	37
Personal usefulness	Pearson Correlation	.501**	1
	Sig. (2-tailed)	.000	
	N	37	37

** Correlation is significant at the 0.01 level (2-tailed)

A third moderate relationship was found between the variables of enjoyment (*I enjoyed the training I received today*) and the credibility of the trainer (*The trainer was credible.*). This relationship was of moderate strength, with a Pearson Correlation score of .456. This can be seen in Table 15, below:

Table 15

Correlation between level of enjoyment and credibility of the trainer

		Enjoyment	Credibility
Enjoyment	Pearson Correlation	1	.456**
	Sig. (2-tailed)		.005
	N	37	37
Credibility	Pearson Correlation	.456**	1
	Sig. (2-tailed)	.005	
	N	37	37

** Correlation is significant at the 0.01 level (2-tailed)

Analysis and Discussion

Research question 1: Reaction. ***Quantitative data*****.** As noted, the first sub-question guiding this study is as follows: How do participants *react* to CWSE-ON’s negotiation skills training workshop? Overwhelmingly, the data supports the conclusion that participants enjoyed the training sessions. Of the 37 survey participants, not a single one selected 'disagree' or 'strongly disagree' to any of the six likert-type questions designed to measure the positivity of their reaction to the training. A full 54% of respondents indicated that they were 'very satisfied' with the training session, with the remaining 46% saying they were 'satisfied'.

Some relationships in the data help make sense of this positive response. There is a positive correlation between the variables of enjoyment (I enjoyed the training I received today) and the credibility of the trainer (the trainer is credible). This suggests that the levels of satisfaction reported by participants may, in part, be due to the perceived expertise and credibility of the trainer. This speculation is consistent with the findings of Gauld and Miller's (2004) study, which determined that a trainer's credibility (measured by their years of training experience and their formal qualifications) had a positive impact on the overall quality of training.

A relationship was also found between the variables of enjoyment (I enjoyed the training I received today) and confidence (after this training workshop, I feel more confident about engaging in negotiation). This suggests that those participants who felt the workshop was most useful in giving them real confidence and skills were more likely to enjoy the process of training. This is consistent with the literature on the training of adults. In her analysis of the literature on how and why adults learn, Lawson (2006) says:

> Adults want immediate, real-world applications. They want the skills and knowledge to help them solve problems or complete tasks. People are motivated to learn when they see relevance to their real-life situations (p. 29)

In other words, adults are motivated by a desire to learn new skills, and they enjoy training more when it delivers on that promise. Therefore, it is unsurprising that the variables of confidence and enjoyment were correlated in this study.

Finally, there was a strong relationship between overall satisfaction (overall, how satisfied were you with the workshop today?) and personal usefulness (I found this workshop useful on a personal level). This is consistent with the results of various studies on training transfer (see, for example, Baumgartel, Reynolds & Pathan, 1984), which have found that the

perceived usefulness or value of the skills being learned is a strong predictor of overall training program success. Interestingly, there was no such relationship between overall satisfaction and *professional* usefulness (I found this workshop useful on a professional level). This result suggests that those participants who felt the workshop was most useful in their personal lives—perhaps useful for learning how to get better prices on goods, negotiate personal finances, or negotiate with their spouse— were most satisfied with the workshop overall.

This finding might be explained with reference again to Lawson's (2006) book on the design and implementation of training programs. According to Lawson (2006),

> Each of us brings to a learning situation a wealth of experiences that provide a base for new learning as well as a resource to share with others. These experiences may be good or bad, but they will impact the way in which an employee approaches a new learning experience. Because people base their learning on past experiences, the new information must be assimilated (p. 29).

In other words, when adults learn new skills, they learn through reference to their past experiences. The literature on gender and negotiation suggests that many of the early-career participants in this study likely had minimal experience negotiating formally in professional contexts (Babcock & Laschever, 2003). However, each participant brought to the table her own experiences engaging in informal *personal* negotiations, such as negotiations around household chores and activities. Given what Lawson (2006) suggests about adult learners, it is possible that participants who were able to see the connection between the new material and their past experiences (with mostly personal negotiations) found the workshop more satisfying. This could explain the correlation between the variables of personal usefulness and overall satisfaction.

Qualitative data. Interview participants were also asked to reflect on what they enjoyed about the workshop. Two main themes emerged from this question: satisfaction with the level of interactivity in the workshop and enjoyment of the opportunity to connect with other women. In terms of satisfaction with the level of interactivity, participants talked about enjoying the activities and the opportunity to practice new skills. One participant said,

> “It was very well done in the sense that it was a very interactive and engaging [workshop] ... it was interactive, it got us to engage with people in the group and there were a lot of these mock situations ... before you leave the session, you basically leave with 'I've tried this', 'I've tried this once'“ (participant 8).

This statement supports the conclusion that the perceived *usefulness* of the workshop has a bearing on participants' overall satisfaction. In response to the open-ended survey question, which solicited general feedback, one participant said, “ I really liked the workshop. It was very informative and highly interactive. The activities were very helpful.” Another said “Great examples and group exercises”.

Again, this finding is consistent with the literature, which suggests that adult learners are highly motivated by a desire to acquire practical skills in the learning process (Lawson, 2006). According to Lawson (2006), adult learners “want the learning experience to be practical and realistic”, and they enjoy the training more if they're given the opportunity to “apply what they have learned as quickly as possible” (p. 29). The positive feedback related to interactivity and activities suggests that CWSE-ON's program was successful in giving participants this opportunity.

The second theme that emerged from the interview data related to participants' reactions to the workshop was enjoying the opportunity to connect with other women in the organization. Participant 7 said, “I liked that it was a diverse group of women across the

company, across the plant, so the idea that you were sharing ideas with other people who are in a similar situation was a bonus". Similarly, participant 4 said "it was really nice to actually be able to get together with all the other women in the company and talk and meet some new faces and be able to talk about something interesting, you know, something that can actually help me". In response to the open-ended survey question, one respondent reported that she "really enjoyed the session and the small group atmosphere", again suggesting the value of being able to connect with other participants. This idea will be touched upon in greater depth later in terms of its implications for training practitioners.

This finding is consistent with the literature that suggests that adults learn best in an "informal, comfortable environment" (Lawson, 2006, p. 30). After interviewing several hundred women who participated in a mixed-gender negotiation workshop, Davidds' (2010) proposed a women-only negotiation training workshop instead. The mixed-gender approach, she determined, was not adequate to address the specific needs and concerns of women when it comes to negotiation. Given this, it is possible that a woman-only approach is required to create the comfortable environment that Lawson (2006) says is so important for adult learning. The positive findings here about the small group atmosphere and the ability to learn and connect with like-minded individuals may be an expression of this precept.

While the quantitative data indicated strong satisfaction with the workshop, interview participants were also asked to share what they did not like, or would change, about the workshop. This question revealed two main themes: that the in-person aspect of the workshop should be shorter and that more real-life examples should be used. Participants reflected that the workshop requires a significant time investment (~4 hours) and that a shorter workshop, perhaps combined with an online component, would make it easier to participate. "It was hard to give that much time, honestly", said participant 8, "Really, to

expect somebody to take a day off work and commute ... I would say this workshop needs to go onsite ... shorten [the workshop], do a bit of a pre-read, do some of it using a Google hangout or whatever". In response to the open-ended questionnaire question, one respondent also recommended shortening the workshop and keeping a "tighter time on anecdotes". Numerous training professionals (see Lawson, 2006; Leatherman, 2007) support the conclusion that shorter workshops with minimal lecture-based elements and strong emphasis on activities are the most effective.

Participants also reflected that more real-life examples— from a wider breadth of fields—would have been beneficial. Participant 6 said,

> "It would have been nice to have more practical examples built into the workshop. In some of the cases it would present examples of what you should do in a negotiation situation and they would give a very specific example but they wouldn't necessarily show how to translate that ... so something that would make total sense in the situation they presented I couldn't see how I would take that and use that in a situation that I would be in".

Another interview participant suggested that it would have been valuable to have a senior woman from their own organization come and talk to them about her experience using negotiation skills in the workplace. This was supported by responses received to the open-ended questionnaire question. One participant recommended "more role-playing to actually apply negotiation skills", another suggested "a case study which is complicated to work through", and a third said she would "like to see examples of negotiation starting phrases".

Again, this finding is grounded in the literature on how and why adults learn. As discussed previously, Lawson (2006) has found that adults learn best when the training is focused on "immediate, real-world application" (p. 29). The training becomes more

enjoyable and more worthwhile if adults are able to "see relevance to their real-life situations" (p. 29). When interviewees discuss the need for more practical examples or the need to see role-models from their own organization, they are suggesting that more could be done to achieve the goal of making the training relevant and practical. According to Burke and Hutchins (2007) not only do practical workshop elements improve satisfaction, they also result in improved training transfer. In other words, the training becomes more successful at producing real behaviour change. Numerous researchers have found that practical exercises and examples improve the success-rate of workshops (see Salas, Rozell, Mullen, & Driskell, 1999; Ford & Kraiger, 1995; Holladay & Quinones, 2003; Warr & Allan, 1998; Lee & Kahnweiler, 2000).

While participants noted the length of the workshop and the need for more practical examples and activities, both the quantitative and qualitative data ultimately support the conclusion that the *reaction* to CWSE-ON's negotiation skills training program was overwhelmingly positive. Participants liked the level of interactivity and the opportunity to connect with women in their organization. Correlation data suggests that the perceived credibility of the trainer and the personal usefulness of the content also contributed to participants' high level of satisfaction with the workshop. When participants were asked to reflect on what they would change, they mentioned the prohibitive length of the training session (~4 hours), and the need for more real-world examples. All of these findings were consistent with the literature on adult learners and training transfer, typified by Lawson (2006) and Burke and Hutchins (2007). The implications of some of these findings for the practice of training will be explored shortly.

Research question 2: Learning. ***Quantitative data.*** The second research question examined in this study is the following: Do participants demonstrate short-term retention of

new knowledge after completing CWSE-ON's negotiation skills training workshop? This concept was primarily measured using two skill-testing questions on the post-workshop survey. Due to the specificity of the concepts being tested (a specific negotiation acronym, and a specific negotiation strategy model), it is not likely that participants had previous knowledge of these concepts. That said, no pre-workshop skill testing was conducted, so it is not possible to accurately identify learning gains. However, it is possible to identify the knowledge that participants had when they left the workshop (keeping in mind that it is *possible* participants had this knowledge prior to participating in the workshop).

Ten respondents, 27% of total, accurately identified the BATNA (Best Alternative to a Negotiated Agreement) acronym with 100% accuracy— 5 out of 5 terms correctly labelled. An additional 21 participants, 56% of total, demonstrated some short-term retention of knowledge, identifying between 1 and 4 terms correctly. Six respondents, 16% of total, provided a wholly incorrect response. Responses that captured the overall idea of the term but nevertheless did not correctly identify any of the words were still coded as entirely incorrect, accounting for the large number of people in this category (n=6). For example, if a respondent wrote "Plan B" or "Have a contingency plan", it was still coded as entirely incorrect even though their statement did, to a degree, reflect the meaning of the BATNA acronym.

Respondents demonstrated greater short-term retention of the second tested, which involved being asked to label the negotiation strategy model taught during the workshop (Dual Concerns Model of negotiation strategy). Twenty-two participants, 60% of total, identified the elements of the negotiation model with 100% accuracy. 13 participants, 35% of total, were partly correct, providing either 1 or 2 correct labels. Two participants, 6% of total, were not able to provide any correct labels.

While learning gains cannot be accurately calculated, as noted, it is valuable to compare the two skill-testing questions to one another. Participants performed significantly better on the second skill-testing question (labelling the negotiation strategy model) than on the first question (identifying the meaning of the acronym BATNA). Significant time was devoted to covering the negotiation strategy model in the workshop (CWSE-ON, 2013). An interesting study was presented to support retention of the strategy labels, and group discussion was encouraged (CWSE-ON, 2013). As a group, participants were asked to reflect on and identify types of negotiations where people might use each of the four strategies (CWSE-ON, 2013). This often prompted laughter and enjoyment, as participants recalled their own past negotiations or referenced common negotiation challenges. In addition, the model was presented on a flip-chart away from the projection screen where the rest of the content was presented, with the presenter recording insights as participants provided them (CWSE-ON, 2013).

While the BATNA acronym was presented in depth and articulated as a very important concept, the same level of interactivity and discussion was not encouraged (CWSE-ON, 2013). While it would seem that BATNA would be easier to recall because it is just one simple phrase, this turned out not to be the case. This suggests the importance of having interactive elements and discussion to support short-term retention of knowledge. The element of humour may have also played a role, suggesting that future research on the role of humour in supporting information-retention in training workshops would be valuable. The experience of having participants focus their attention on a different part of the room (the flip chart instead of the projection screen) also seemed to be valuable, though this is speculative.

That said, the use of such strategies would seem to be important for training practitioners who are hoping to produce excellent results at Level 2 of the Kirkpatrick model.

This study demonstrates that simply presenting a concept in depth and verbally articulating its importance is not adequate for producing acceptable levels of information retention. This finding is certainly consistent with what is known about adult learners. According to Lawson (2006), "when participants *do the work*", a phrase Lawson (2006) uses to mean engages in activities and discussions in order to learn new material, "they transfer new information into long-term memory, much like storing data in a computer" (p. 39). Walters (1993) supports this conclusion, citing Dale's (1946) popular set of studies, which found that people remember 20% of what they hear, 30% of what they see, 50% of what they see and hear, and 80% of what they hear, see, and do. In other words, simply hearing material— as was the case for the BATNA acronym in the CWSE-ON negotiation skills workshop—is not adequate for supporting high levels of information retention.

Qualitative data. In order to gain further insight into this research question, interview participants were asked about their retention of knowledge. Some participants noted the difficulty in retaining knowledge. Participant 7 said, "I didn't actually retain too much of it. I remember it being very useful, but I... I struggle to recount specific points". Participant 4 expressed a similar sentiment, saying "With so much going on it's kind of hard [to remember what you learned]. I did make a few notes ... so I just have those notes now that I can refer back to. Otherwise, not too much, just aside from my notes, not too much". It should be noted, participants were interviewed four to six months after their completion of the training, whereas most *learning* measures (like the workshop questionnaire referred to above) are administered directly after the training workshop (Lawson, 2006, p. 263) That said, interview responses are still an interesting measure of the retention of knowledge after the training program ends and the participants return to the workplace (Lawson, 2006, p. 263)

Indeed, many participants did report retention of certain ideas. Several participants recalled 'eye-opening' experiences, including realizing how prevalent negotiation is in our day-to-day lives. Participant 1 said, “The one thing that definitely sticks in my mind is I recognize the opportunity to negotiate more than before I went into the workshop”. Participant 5 noted “Definitely the first opening activity I remember which was getting us to think about all the different times in your day that you negotiate ... that definitely changed my perspective on negotiation”. Several other participants said their key ‘takeaway’ from the workshop was an increased feeling of confidence and willingness to engage in negotiation. These comments did not exactly reflect the absorption of specific knowledge, however, so they were instead coded as relating to Kirkpatrick’s third level, *behaviour* transfer.

In their critique of the Kirkpatrick and Kirkpatrick (2006) training evaluation model, Alliger and Janak (1989) assert that not all 'good' training programs will receive equally favourable results at every level of the model. In fact, they argue that an excellent training program can be designed to produce good results on only one or two of the four levels. This objective may apply to CWSE-ON's negotiation skills training program. The overall goal was to improve women's confidence about engaging in negotiation and to encourage them to try doing so once they returned to the workplace. In that sense, whether or not participants were able to demonstrate retention of the specific facts is not as relevant as whether they actually tried transferring the skills to the workplace (a Level 3 evaluation).

The short-term retention of knowledge taught during the workshop would seem to be relatively low, with only 27% of respondents correctly identifying all elements of the BATNA acronym, and 60% correctly identifying all three labels on the negotiation strategy model. When asked what knowledge they retained from the workshop, participants noted difficulty recalling specific concepts. Instead, it would seem that most participants retained

'general take-aways' such as the prevalence of negotiation in our day-to-day lives. Many interview participants, when asked what information they retained, said the take-away from the workshop was increased confidence to engage in negotiation. Alliger and Janak's (1989) critique of the Kirkpatrick model was used to defend the judgement that such impacts (increased confidence, increased willingness to engage in negotiation) are significantly more important than short-term retention of facts for the purposes of the CWSE-ON negotiation skills workshop.

Given the apparent decline in knowledge retention demonstrated by participants of this study between the questionnaire phase and the interview phase, it would also suggest the importance of conducting another post-test four to six months later to ensure that an adequate amount of information has still been retained. This is supported by training professionals such as Lawson (2006), who recommend administering a second learning test "several months following the training" in order to "gauge retention of the information learned in the program" (p. 263).

Research question 3: Behaviour. The third research question explored in this study is as follows: Were participants of CWSE-ON's negotiation skills training workshop able to apply new knowledge in the workplace? This question was explored through several interview questions. Overall, participants were optimistic about their ability to apply their new negotiation skills once they returned to the workplace. Almost every participant said she had been able to apply the skills, and several were able to recall a specific example of using their new skills in the workplace as a direct result of their participation in the workshop. This is particularly positive in consideration of the fact that previous studies have estimated transfer rates of between 10 and 40% (Georgenson, 1982; Saks, 2002). Participant 5 recalled, "Shortly after the workshop I negotiated my hourly wage for a job that I have, and ... I ended

up getting a higher amount than what I would have gotten otherwise”. When asked if she would have engaged in such a negotiation prior to taking the workshop, participant 5 responded “I probably wouldn't have even thought to negotiate it to be honest”. Participant 1 described an instance where she negotiated the parameters of a new project she was asked to take on at work and stated that she would not have participated in such a negotiation prior to taking the workshop.

Based on their interview responses, two themes emerged related to the mechanism by which the workshop led to behaviour change. One group of participants said they were empowered by increased confidence as a result of knowing new negotiation *techniques*. When one participant was asked about a negotiation she undertook following participation in the workshop, she said “Yeah, [the process of negotiation] is more comfortable when it's structured. I was definitely more confident in the whole process because I knew that I had something set out, there's structure ... There's an algorithm, so I'm like 'okay, that's the algorithm, so it'll just apply it” (participant 2). These participants focused on the importance of knowing new negotiation techniques and applying them in the workplace.

The construct of *self-efficacy* is relevant in making sense of this sub-theme. Self-efficacy refers to “judgements trainees make about their competency to perform tasks” (Burke & Hutchins, 2007, p. 266). Several studies have confirmed the idea that self-efficacy has a significant bearing on participants’ willingness and ability to transfer new skills to the workplace (see Bandura, 1982; Chiaburu & Marinova, 2005; Ford, Smith, Weissbein, Gully, & Salas, 1998; Gaudine & Saks, 2004; Gist, 1989; Mathieu, Tannenbaum, & Salas, 1992; Stevens & Gist, 1997; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991). In other words, if participants leave a workshop feeling that they have increased competency to perform a task—high *self-efficacy*—they will be significantly more likely to transfer new

skills to the workplace. This helps make sense of why interviewees in this study said that increased confidence and feeling of mastery over negotiation techniques facilitated their application of skills in the workplace.

A second group of participants said they were able to apply the skills due to increased confidence as a result of feeling they now had 'permission' to negotiate. Participant 5 summed this theme up nicely, saying: “some people need to be told 'it's okay to negotiate, it's okay to ask for these things’ ... you need to be given permission to negotiate”. Other participants noted that they now felt negotiation was “okay to do” (participant 7), and they now feel that it's “expected” (participant 6). In other words, the workshop empowered them to negotiate where previously they may have been too shy or conflict-avoidant to do so. These participants focused on the importance of having increased confidence as a result of knowing they wouldn't be offending or surprising people by trying to engage in negotiation.

Barriers to transfer. If participants said they tried to use the new skills in the workplace, they were then asked to identify any barriers they faced when trying to implement these skills. The reported barriers fell within two themes: internal barriers and external barriers. The term *internal barriers* refers to barriers that originate from the personality or feelings of the participant. Participants who cited internal barriers discussed such things as lack of confidence, fear of bad outcomes, and issues of identity. An example of a statement relating to a lack of confidence is “I'm not very confident ... and negotiating is nerve-wracking so I avoid it for that reason” (participant 6). An example of a statement relating to fear of bad outcomes is, “I worry about the negative consequences, which I know logically they wouldn't be so negative, but it's just a whole 'what if the other person doesn't like me' or 'what if this wrecks our relationship' barriers ... I'm just worried that it'll end up that I don't gain anything” (participant 6). In their meta-analysis of research on training

transfer, Burke and Hutchins (2007) note that anxiety has a moderate to strong negative relationship with transfer of training to the workplace (p. 271). In other words, it is unsurprising that interviewees in this study who felt nervous or who feared bad outcomes cited this as a barrier to transfer.

Finally, an example of a statement relating to issues of identity is, “That's not who I am. I'm not a nickel and dimer” (participant 8). This last statement is consistent with Davidds' (2010) finding that, following engaging in a negotiation skills workshop, women did not transfer the skills because “they believed that utilizing many of the negotiation tactics they learned compromised their personal values” (2010, para. 1). In other words, the direct negotiation style taught to the mixed-gender group from which Davidds (2010) drew her sample was not consistent with many participants' self-concept. Even though CWSE-ON worked with women only and drew on women's strengths for collaborative negotiation, the issue of identity still emerged in this study.

Several participants also cited external barriers to skills transfer. *The term external barriers* refers to those barriers that originate from the structure or nature of the *transfer climate*[5]. According to Burke and Hutchins (2007), transfer climate “has been shown to influence transfer outcomes directly, indirectly as a moderator between individuals or organizational factors and transfer, and as a correlate to transfer implementation intentions” (p. 280). The barriers associated with transfer climates, cited by the interviewees in this study, included such things as unsupportive managers, hostile or combative negotiating

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[5] *Transfer climate* refers to “those situations and consequences in organizations that either inhibit or facilitate the use of what has been learned in training back on the job” (Burke & Hutchins, 2007, p. 280.

partners, lack of opportunities in the organization, and negative stereotypes of women who negotiate. Participants who cited a lack of support (from managers or otherwise) made statements such as "I have a manager who I don't believe is overly interested in promoting any of his employees" (participant 10), and "I had no mentors, no support, no nothing" (participant 8). Another barrier identified by the participants was encountering hostile or combative negotiators when they attempted to transfer the skills to the workplace. For example, participant 5 described trying to negotiate the date of an interview and receiving a terse response that indicated unwillingness to engage in negotiation.

This finding is consistent with the literature on training transfer. In their evaluation of aspects of *transfer climate*, Burke and Hutchins (2007) note that support from supervisors and peers is the most important element of transfer climate when it comes to encouraging skills transfer. Numerous other studies have also supported the link between support in the workplace and skills transfer (Brinkerhoff & Hontesino, 1995; Broad & Newstrom, 1992; Burke & Baldwin, 1999; Clarke, 2002). This support can be either informal or formal (Broad & Newstrom, 1992). Broad and Newstrom (1992) specifically identify the potential of structured post-training support-groups, saying:

> Programs such as Alcoholics Anonymous have long recognized the tremendous merits of support groups for initiating and sustaining long-term behavioural change [....] In the meetings members can receive encouragement for experimenting with new applications of the ideas, principles and skills they acquired (p. 96).

Whether the support is in the form of supervised and structured groups or simply informal relationships in the workplace, support in the workplace is clearly important for facilitating skills transfer (Broad & Newstrom, 1992). Therefore, it is logical that participants in this

study who did not have support in the workplace— or who encountered unsupportive, hostile negotiating partners—noted this as a barrier to applying skills in the workplace.

Several participants also cited a lack of opportunity to negotiate as a barrier. These interviewees made comments such as “Business hasn't really been great here and we've had furlough days for maybe the last 5 years and we've had many layoffs, so there hasn't been a lot of opportunity [for negotiation]” (participant 4). Again, this finding is consistent with studies on training transfer. Brinkeroff and Montesino (1995), Gaudine and Saks (2004) and Lim and Morris (2006) all identify ‘opportunities to perform’ as being an essential aspect of the *transfer climate*. In other words, if an individual does not have an opportunity to practice their new skills in their natural work environment soon after engaging in training, the training program will be less successful in producing behaviour change and organizational results.

Finally, many participants cited the negative stereotypes of women who negotiate as a barrier to behaviour change. When asked about the barriers she faced when trying to apply negotiation skills to the workplace, participant 6 said, “women who go in and ask for what they want get labelled as being bossy or sort of, you know, they're not looked at the same way as men who go in and ask as an aggressive negotiator”. Participant 4 expressed a similar sentiment, saying, “It might have to do with how you're perceived... I mean, you might be perceived as not as technical or not as smart, or maybe... might have priorities at home with their kids more, all those could be limitations”. Other participants mentioned stereotypes of women in male-dominated fields as being limiting in various contexts. This finding is a reflection of the idea that women who ask for what they want can face social consequences for doing so (e.g. Bowles, Babcock, & Lai, 2007).

Facilitators of transfer. Participants were also asked to reflect on factors that *facilitated* their application of skills in the workplace. In other words, they were asked to identify the things (people, structural factors, internal factors) that made it easier to apply the new skills in the workplace. Consistent with the findings of Burke and Hutchins (2007), the main theme that arose from this question was the value of the support of others. Several participants said that the support of other people was beneficial and helped them feel confident and empowered enough to apply new skills to the workplace. Those who provided support to the interviewees were identified as managers (participant 7), to mentors (participant 1), to friends and family (participant 3). This finding gains additional support from the several other women who noted that a *lack of support* was a particular barrier that limited their ability to apply new skills.

Overall, the CWSE-ON program achieved very positive results at the third level of Kirkpatrick's training evaluation model, behaviour transfer. Nearly every interviewee said they were able to apply the skills in the workplace, with several participants able to identify specific examples of negotiations they engaged in after participating in the workshop. When asked, they all predicted that they would not have engaged in the negotiation (or would not have been as effective in the negotiation) if they had not taken the workshop. As noted, this is a significantly higher level of behaviour transfer than what was predicted based on the literature (see Georgenson, 1982; Saks, 2002). Barriers to the application of new skills cited by interviewees included unsupportive managers, lack of opportunities in the organization, hostile negotiating partners, and negative stereotypes of women who negotiate. Inversely, when participants were asked what *helped* them apply new skills, the overwhelming response was support from others, whether that be a mentor, family member, friend, co-worker or

supervisor. This is unsurprising, given the literature on training transfer climates (see Burke & Hutchins, 2007).

Research question 4: Results. The fourth research question of this study was: Do participants of CWSE-ON's negotiation skills training workshop perceive that any organizational impacts have been, or will be, achieved as a result of their participation in the training session? As noted, training sessions that are evaluated at this level normally refer to business metrics such as changes in promotion rates, profits, customer satisfaction, or other measures related to the workshop in question. In this case, due to time and access constraints, this question was explored through one interview question, as well as follow-up probing. Rather than evaluating the program on actual organizational results, then, the training program was evaluated on participants' perceptions about organizational results that the workshop could lead to. Overall, participants did not feel positively about the workshop's potential to produce any change at the organizational level. Themes that emerged from this question include: no change will occur due to internal factors, and no change will occur due to external factors.

Internal factors. *Internal factors* refers to those barriers to organizational change that stem from the personality or emotions of the people involved. In particular, interviewees were skeptical that a workshop could result in lasting behaviour change (and thus change on the organizational level) because they felt that the propensity to negotiate might be 'ingrained'. For example, Participant 5 said, "Say everyone attended the workshop and everyone took something away from it at least in the sense that I took away from it, would those people still be passive...? Is [a propensity to negotiate] a deeply rooted part of the personality?" Referring to other women in the organization, participant 1 said "I think there are those who are happy to be a little more complacent, a little more comfortable, and so for

those reasons a workshop like this … I don't know if it would help" in creating change at the organizational level. In other words, if people aren't motivated to advance in the workplace, the potential for a workshop to create meaningful change on the organizational level is limited.

Numerous studies have found that a participants' level of motivation to engage in training is a strong predictor of their subsequent ability to transfer skills to the workplace, which is a necessary precursor to organizational change (Chiaburu & Marinova, 2005; Facteau, Dobbins, Russell, Ladd & Kudisch, 1995; Lawson, 2006). Other studies have also noted that personality type, such as a person's level of confidence or extraversion, can also impact their ability to transfer skills to the workplace (Colquitt et al., 2000; Machin & Fogarty, 2004; Naquin & Holton, 2002). Overall, interviewees who cited internal barriers to organizational change were skeptical that women would change their behaviours in the workplace as a result of training, due to barriers such as personality type and level of motivation. Without behavioural change, interviewees felt that organizational change could not be achieved.

External factors. *External factors* refer to those barriers to organizational change that stem from the structure or nature of the wider organization or field. One subtheme that emerged here was that organizational change is unlikely due to the lack of women in the field. In other words, the 'critical mass' of women that might facilitate real organizational change has not yet been achieved. When asked whether the workshop would create organizational change, participant 6 responded "I'm the only woman in my research group and most research groups in my department are like that. ... It's difficult to say if the other women in the department have the same sort of negotiation training, how things would change since there's so few of us". Other external barriers to organizational change included

lack of impact on mostly male decision-makers (participant 2). In other words, the participant felt that, while women might increase their skills and feel empowered, the workshop would not have any bearing on the decisions made by management, most of whom are men.

In sum, participants were not optimistic about the ability of the workshop to produce meaningful change on the organizational level. Interviewees cited both internal reasons (reasons related to women's personalities) and external reasons (reasons related to the structure or nature of the organization) when trying to explain why they felt the workshop would not have meaningful organizational impacts. That said, such impacts are difficult to predict, and the positive results in terms of behaviour change suggest that the workshop does at least have some potential for producing organizational change.

The findings of both the questionnaire and the interview, then, have provided significant insight into the research questions guiding this study. Sub-question 1 asked how participants reacted to CWSE-ONs negotiation skills training program; the results suggest that participants were highly satisfied with the workshop. Sub-question 2 asked how well participants were able to retain information gleaned during the CWSE-ON negotiation skills workshop; the results suggest that participants struggled to recall specific facts and details, but that they could recall several important take-aways.

Sub-question 3 asked whether, and to what degree, participants were able to transfer their skills to the workplace. The results were very positive here; not only did participants say they tried using the skills, but many could identify specific instances of using new negotiation skills to achieve favourable results in the workplace. Interviewees said that this behaviour change took place due to increased knowledge of negotiation techniques, and because they now feel they have 'permission' to negotiate. Finally, sub-question 4 asked

whether the participants perceived that organizational results could be achieved by such a workshop; participants were not positive about the ability of the workshop to do so. However, given the very positive results in terms of behaviour change, it is likely that at least some results at the organizational level may materialize as these women progress through their careers and continue to use negotiation to secure more favourable results for themselves and, potentially, their teams and organizations.

Implications for Training Practitioners

The findings of this study provide several insights that are highly relevant to training practitioners, particularly those who wish to work with women in male-dominated fields such as science, engineering, technology and mathematics. In addition to the insights gained from questioning around the four research questions, interviewees were also specifically asked several questions about workshop design and their recommendations for future workshops and events. The latter has the potential to facilitate the development of recommendations for training practitioners. Implications will be presented according to the levels of the Kirkpatrick and Kirkpatrick (2006) training evaluation model.

Level 1 - Reaction. First, let us explore the implications of the correlation data. The relationships in the data suggest that a credible trainer and practical hands-on activities that increase participants' confidence are two variables that are highly connected with positive experiences. In other words, these two elements are essential for any future professional development workshops with the target audience. This conclusion is well supported by the literature, such as Gauld and Miller (2004) and Lawson (2006).

Most interestingly, though, was the strong relationship between overall satisfaction (overall, how satisfied were you with the workshop today) and personal usefulness (I found this workshop useful on a personal level). As noted, there was no such strong relationship—

or any relationship at all— between overall satisfaction and *professional* usefulness. Given that the ability to draw on past experience to make sense of new ideas has been identified as important for adult learners (Lawson, 2006), it is possible that this effect occurred because women tend to have more previous experience with personal negotiations than professional ones (Babcock & Laschever, 2003). This suggests the need for training practitioners to consider participants' past experiences when designing training programs, and to consider incorporating examples and case studies from personal—as well as professional— life.

Interview data also provided some insights related to participants' reaction to the workshop that are relevant for training practitioners. Most interestingly, many women mentioned that they enjoyed the workshop because they enjoyed the opportunity to connect with other women in their organization. While some studies have conducted mixed-gender workshops with the hopes of achieving positive results for women (see Stevens et al., 1993), there is reason to believe that women-only workshops may have greater impact. Interview participants were divided on whether a women-only or a mixed gender group was preferable. Those who preferred an audience of just women made statements such as "I think men would have a different approach [to negotiation], and it's nice to cater to women, just because the way we do business is different, so it's nice to have content developed based on who we are" (participant 4). One participant mentioned that she would have been too intimidated to attend a mixed-gender negotiation workshop.

This finding is consistent with Davidds' (2010) conclusion that in order for negotiation skills workshops to be most useful for women, they must speak to the unique concerns of women. In particular, she found that women were concerned that practicing negotiation skills was inconsistent with their values and morals. Men and women face different social consequences as a result of using the same communication and negotiation

behaviours, with women typically being judged more harshly if they are direct and assertive (Carli, 2001). This so-called 'double-bind' makes it important to have a women-only group in order to address some of these concerns in a supportive environment, which is an essential element of successful training programs (Lawson, 2006).

Level 2 - Learning. One distinct limitation of this study, to be explored later in Chapter 5, is that there was no pre-test of knowledge. Therefore, it was impossible to determine learning gains achieved through the workshop, since some participants may have already known the concepts prior to attending the workshop. For CWSE-ON, calculating learning gains may not be particularly relevant, since their program was not focused on creating an impact at this level of the Kirkpatrick model. In other words, the workshop could be a success whether or not participants remembered specific facts and figures, particularly if they enjoyed themselves, transferred behaviours to the workplace, and ultimately achieved higher promotion rates or compensation rates. On the other hand, in cases where Level 2 evaluations are paramount (for example, when the training is focused on imparting important technical knowledge), this study supports the conclusion that having both pre- and post-tests of knowledge is important. Without such a pre-workshop measure, it was impossible to confidently determine the success-rate of the workshop in terms of imparting new knowledge.

As noted earlier, participants performed significantly better on the second skill-testing question (labelling the negotiation strategy model) than on the first question (identifying the meaning of the acronym BATNA). It was speculated that this discrepancy was due to the fact that activities, discussion and humour were used to teach the negotiation strategy model (CWSE-ON, 2013). Scholarly works by Walters (1993), Dale (1946) and Lawson (2006) were used to support the conclusion that levels of learning are higher when

such strategies are used, as opposed to a standard lecture-style approach. It is therefore recommended that trainers should use activities and discussion around key points in order to produce higher levels of learning. This study also suggests the need for post-tests of learning at a later date in order to measure knowledge retention, as participants in this study seemed to forget a significant number of the specific facts they learned in the workshop by the time they were interviewed (four to six months later).

Interviewees made several suggestions in relation to how the workshop might better facilitate participants' *learning*. One participant suggested that follow-up emails with key facts would be helpful, while several other participants mentioned the value of a booklet, handout or short reference guide which participants can refer to prior to engaging in negotiations. On the post-workshop questionnaire, one participant noted that having that booklet or handout during the presentation would have “made it easier to follow the workshop”.

It is well accepted in the literature that people have different learning styles (see, for example, Dunn & Dunn, 1993; James & Galbraith, 1985; Kolb, 1971). In their study on learning styles, Sims and Sims (1995) note that there are at least 18 accepted learning style typologies used by training and teaching practitioners who work with adult learners (p. 30). Learners may respond most favourably to information received from a particular sense, such as sight in the case of visual learners, sound for aural learners, or even touch / movement for kinesthetic learners (Sims & Sims, 1995). According to Lawson (2006) the most common type of adult learner is a visual learner; these people need slides, videos, and written text to learn material most efficiently. This tendency to rely most often on visual materials supports the suggestion that a handout or booklet would have been helpful to reinforce key points,

particularly those points conveyed orally or through activities. It is therefore recommended that training practitioners use re-enforcing text materials to support visual learners.

Level 3 - Behaviour. This study has significant practical implications for training professionals in terms of behaviour transfer. In particular, several factors were identified that either hindered or helped participants' ability to transfer skills to the workplace. First, it would appear that having support from a mentor, colleague, friend or family member when it comes to professional development was a significant factor in behaviour transfer. In fact, when participants were asked to identify the things that facilitated their behaviour-transfer (either internal factors like confidence, or external factors like plenty of negotiation opportunities), the *only* thing cited by interviewees was the support of others. This finding has also been confirmed in the literature on training transfer (see, for example, Brinkerhoff & Hontesino, 1995; Broad & Newstrom, 1992; Burke & Baldwin, 1999; Clarke, 2002).

According to C. Guimont (personal communication, March 11, 2013), training professionals are increasingly acknowledging the importance of the dynamics of natural working groups when designing training programs. Salas and Cannon-Bowers' (2001) meta-analysis of training literature supports this conclusion. They say that "much more attention has been given to discussion training as a system embedded in an organizational context", including the context of specific working teams (p.491). This new trend is likely due to the fact that numerous studies have found that *transfer climate* is a significant variable in whether or not participants transfer their training to the workplace (see Rouiller & Goldstein, 1993; Kontoghiorghes, 2001; Kim & Morris, 2006; Mathieu et al., 1992; Burke & Baldwin, 1999; Machin & Fogarty, 2004).

Rather than simply take a group of people away from their natural working environment and impart knowledge, there is a new trend toward continued engagement with

trainees in order to assist them in applying new skills in the context of their specific department or team (C. Guimont, personal communication, March 11, 2013). In other words, since transfer climate has been found to be such an important variable, training practitioners are increasingly working with trainees to assist them in applying skills in their own unique climates (Broad & Newstrom, 1992). There are numerous ways this continued involvement can occur, including providing structured transfer opportunities, facilitating post-training support groups, or providing ongoing coaching, for example (Broad & Newstrom, 1992). Some of these options will now be presented.

C. Guimont (personal communication, March 11, 2013) says that one viable option is to work with the participants' managers to create 'transfer opportunities' where the employee has the opportunity to apply the skills they learned in a supportive, natural work environment. According to Ford et al. (1992) and Quinones et al. (1995), the opportunity to perform new skills in the workplace soon after learning them is an important facilitator of skills transfer following training. For example, after a training workshop on presentation skills, the trainer might work with the participant and his or her manager to identify several team meetings where the participant could use the new skills they have learned. It is important for these opportunities to occur soon after training to avoid the ‘skill decay’ that occurs when there is a long delay between training and the use of skills (Arthur et al., 1998 in Salas & Cannon-Bowers, 2001, p.489). These transfer opportunities are followed by supportive and constructive feedback provided by the manager, the trainer, and/or other third parties (such as other team members at the group meeting, for example). Broad and Newstrom (1993) support the conclusion that feedback from others is an important element of training transfer, saying “feedback, whether internally generated or from one's supervisor,

peers or the job itself, is a powerful force that encourages continued effort and corrects errors" (p. 173).

C. Guimont (personal communication, March 11, 2013) suggests pairing this focus on feedback with the use of reflection journals. The participant completes a reflection journal at regular intervals to reflect on their ability to apply the skills in the workplace. If desired, these reflection journals can be reviewed by the trainer to facilitate the provision of helpful feedback. A similar system was used by the University of Ottawa's peer-mentor training program; peer mentors used a journal to engage in discussion and receive feedback from a training supervisor (Terrion & Philion, 2008). According to Terrion and Philion (2008), "the journal provides the space, in a secure and supportive environment, for mentors to explore their emerging competence through describing their observations, articulating feelings and re-evaluating their experience, to ask questions, to respond to feedback, to seek further training and to confirm that which they already know" (p. 595)

Such a system of post-training reinforcement could address several of the barriers to behaviour transfer noted by the participants of this study. First, this training system creates a work environment whereby the manager (and/or other team members) become supportive partners in the participants' attempt to apply new skills to the workplace. Having supportive coworkers and colleagues was a significant factor in the application of new skills found in this study and others (Broad &Newstrom, 1992; Burke & Hutchins, 2007). Second, such a system ensures that opportunities to practice the skills are provided. Several participants in this study noted that a barrier to behaviour-transfer was simply a lack of opportunity to practice the skills; this was supported by several studies in the literature, including Brinkerhoff and Montesino (1995), Gaudine and Saks (2004), Lim and Morris (2006), Ford and Quinones (1992) and Clarke (2002).

Participants in this study also noted that hostile negotiating partners and negative stereotypes of women who negotiate were a barrier to behaviour-transfer. Ideally, in this system, participants would first have the opportunity to practice skills in a safe and supportive work environment, where they would be less likely to encounter these barriers until they gained enough confidence to deal with such issues. Broad and Newstrom's (2000) book on techniques to facilitate transfer of skills to the workplace supports the conclusion that safe and supportive environments are important for the early stages of skills transfer, saying that there's a need for “relatively safe opportunities to experiment with new skills without the risk of error, personal harm, or destruction of important products or equipment” (p. 73).

To conclude, this study illuminated numerous recommendations for training professionals in terms of facilitating skills transfer. Ultimately, this study suggests that a more intensive post-training approach, which maximizes the positive benefits of support from colleagues/supervisors while minimizing barriers such as lack of opportunity to transfer skills, would be recommended to training professionals. An alternative system that meets this criteria will be presented in depth shortly.

Level 4 - Results. Despite the fact that participants reported transferring newly learned skills to the workplace, they were not confident about the potential for organizational change to occur as a result of the workshop. While this finding does not have direct practical implications for training professionals, it does suggest the need for a more comprehensive approach to training than simply a one-day or half-day workshop. Participants particularly mentioned the lack of impact of the training workshop on actual decision makers. In other words, the individuals who make decisions in the organization are not involved in the

training process in any way. As noted, an alternative training model will now be proposed which would ideally make a positive impact in this area.

Implications for the Design of Training

In terms of the structure of future events, several participants suggested a more intensive approach, as opposed to a traditional half-day training event. Suggestions included one-on-one training (participant 1) and a theoretical workshop followed by a more practical interactive session (participant 6). Another participant mentioned the need for the workshop titles and content to be linked to their professional development plans (participant 3).

Participant 8 envisioned a multi-year workshop and coaching combination, saying "For this to be really effective for those of us who have taken it, I think it would be a series of workshops over time, over 2 - 3 years ... it's almost like a workshop component and coaching, where somebody works with you over time". This process is consistent with the alternative training framework explored above, wherein participants are given structured opportunities to use their skills, complete reflection journals on their progress, and receive ongoing feedback and support from the trainer. As noted above, such an approach also has support in the literature, which suggests that a more comprehensive approach after training would held enhance participants' ability to transfer new skills (Broad & Newstrom, 1992; Burke & Hutchins, 2007).

Participant 8 envisioned that this process could be supported by technology, including pre-reads or 'Google Hangouts' online prior to in-person interactive sessions. The potential to leverage technology for use in training has been a topic of significant interest in training literature (see, for example, Driscoll, 2002; Rosenberg, 2001; Salas & Cannon-Bowers, 2001). Several studies have explored the potential for using technology to facilitate distance learning, (see, for example, Driscoll & Alexander, 1998; Schreiber & Berge, 1998). Distance

learning can be either *synchronous*, with learners from multiple locations following along online with a 'live' training session, or *asynchronous*, with learners using stand-alone online training modules at their leisure; both have merits in terms of their ability to achieve learning goals (Hrastinski, 2008).

Other studies have explored the potential for using technology in conjunction with traditional in-person training, an approach known as *blended learning* (see Driscoll, 2002; Oliver & Trigwell, 2005). According to Kim, Bonk, and Zeng (2005) in their article on the future of online learning, blended approaches have— and will continue to— grow in popularity in workplace settings. There is reason to believe that this is a positive trend; in his analysis of the use of blended learning for organizational training, Singh (2003) concludes that “blended learning not only offers more choices, but is also more effective” than traditional in-person approaches alone (p. 51).

Blended learning can include a number of different approaches, and incorporate a wide variety of technologies. Studies have found that using the following tools in conjunction with traditional training techniques has enhanced the effectiveness of training or learning programs: Google Hangouts (Teras & Teras, 2012), Google Docs (Zolfo et al., 2010), blogs (Hramiak, Boulton, & Inwin, 2009), web journals (Terrion & Philion, 2008), Google Calendar, Wikidot, Google Sites, YouTube and Craigslist (Pretlow & Jayroe, 2010). This is in addition to the tools, such as Adobe Flash, used to create more traditional e-learning modules (C. Guimont, personal communication, March 11, 2013). All of these tools have been demonstrated to be effective to some degree when used as part of a larger blended learning strategy.

In summary, technology has great potential to contribute to the effectiveness of training programs, particularly if used in conjunction with traditional in-person methods.

Such an approach would address the concerns of several participants interviewed in this study, who felt that the traditional half-day in-person workshop wasn't adequate to produce lasting behaviour change. A more intensive approach, facilitated by the use of technology, may be a promising way to address several participants' critiques of the CWSE-ON training program while taking into account best practices identified in the literature. One such alternative training model will now be presented in detail.

An alternative training model. This alternative training model is presented in order to facilitate a discussion of best-practices for training. Elements of the model presented are based on best practices identified in the literature (for example, those identified by Broad & Newstrom, 1992, Burke & Hutchins, 2007, and Lawson, 2006), best practices developed by CWSE-ON during their implementation of the negotiation skills workshops, as well as literature-supported suggestions made by workshop participants. This model, supported by the findings of this study, is presented here in the hopes that future peer-reviewed research might implement such a model and evaluate its effectiveness using Kirkpatrick and Kirkpatrick's (2006) four-level training evaluation model. Future research in such an area would be extremely valuable in terms of identifying a workshop structure and training style uniquely suited to meet the needs of early- to mid-career women working in male-dominated fields.

Implementation of such a model would begin with recruitment at the organizational level. Ideally, recruitment would be targeted at individuals identified by senior organizational members as having potential for promotion or leadership. This recruitment strategy was highly effective when used by CWSE-ON in Mississauga, ON. When the trainer is coming from the 'outside', getting members of the organization itself to arrange recruitment is one way to ensure that participants are highly motivated to learn and will get maximum benefit

from the program. This is important because motivation to learn has been consistently identified as an important predictor of trainees level of learning and behaviour transfer (Chiaburu & Marinova, 2005; Facteur et al., 1995; Quinones, 1995). Another variable impacting trainee learning and transfer is perceived utility or value of the training (Axtell et al., 1997; Baldwin & Ford, 1988; Baumgartel, Reynolds, & Pathan, 1984; Clark, Dobbins, & Ladd, 1993); having an internal recruiter maximizes the likelihood of selecting participants for whom the training will have the greatest utility. Potential participants would be given a full information package about the program, including details on the time commitment required.

Once participants indicated their interest in participating in the program, their direct supervisors would be sent a tailored information package informing them that their employee was selected for a training program and that their participation was required. Again, the time commitment for the manager would be clear. As noted earlier, the support of supervisors is an essential element of a training program which results in lasting behaviour change (Brinkerhoff & Montesino, 1995; Broad & Newstrom, 1992; Burke & Baldwin, 1999; Clarke, 2002; Foxon, 1997; McSherry & Taylor, 1994; Smith-Jentsch, Salas, & Brannick, 2001; Tannenbaum, Smith-Jentsch, & Behson, 1998). Rather than leave this variable up to chance, this alternative model would provide a structured mechanism by which supervisory support would be provided to trainees.

If the manager agreed to participate in the program, a meeting would be established between the trainer, the trainee and the manager. At this meeting, the expectations of each party would be established. The trainer would guide the trainee and the manager in how to provide constructive feedback. Given the concerns identified by participants in this study about feeling intimidated when trying to apply skills, the focus would be on making both

parties feel comfortable and framing the exercise in a positive light. This would be done in order to create a positive and safe learning environment, which Lawson (2006) says is essential for successful training programs.

Efforts would be made to connect the training to the employee's development plan or performance review metrics in order to maximize the potential benefit for the trainee. This is based on studies about training motivation (see, for example, Martocchio & Webster, 1992; Quinones, 1995), which have determined that increased ‘incentive’ to learn—such as tying the training program to pre-established goals—has a positive impact on participants’ “skill acquisition, retention and willingness to apply the newly acquired KSAs [skills] on the job” (Salas & Cannon-Bowers, 2001, p.479). At this time, the manager and the trainee would each complete a pre-evaluation of the trainee's ability in the area under question. Such pre-workshop measures (compared to identical post-workshop measures) would enable an accurate and fruitful post-program evaluation using the Kirkpatrick and Kirkpatrick (2006) training evaluation model.

Once a small group of eight to ten women was selected, they would be asked to participate in an online training module. The training module would act as a 'pre-read', where participants would learn key theoretical concepts related to the topic being covered. The online training module would incorporate both a pre-test of knowledge, and a skill-testing questionnaire after each content section to enable accurate assessments of learning gains (Leatherman, 2007) . The module would incorporate varied content, including video clips, short text passages, case studies and examples, as suggested by Lawson (2006).

The decision to use an online training module for the 'theoretical' content was based on suggestions from the interview portion of data collection for this thesis. It also gains support from the literature. Lawson (2006) says that the most effective use of in-person

training sessions is for activities and other practical content. This is consistent with literature on training transfer, which indicates that workshops with significant time devoted to skills practice and feedback are more effective at producing actual behaviour changes (Donovan & Radosevich, 1999; Ford & Kraiger, 1995; Holladay & Quinones, 2003; Lee & Kahnweiler, 2000; Salas, Rozell, Mullen, & Driskell, 1999; Warr & Allan, 1998) By minimizing the use of lecture in-person, and instead relegating it to an online module that can be completed at the trainee's leisure, this alternative model would avoid cognitive overload (Lawson, 2006), while maximizing training transfer (Burke & Hutchins, 2007).

After their completion of the online training module, participants would be asked to convene for an in-person workshop. The workshop would begin with a pre-test of behaviour, such as a short videotaped presentation to the group. This test would be repeated at the end of the day in order to assess changes in behaviour. Pre- and post- tests of learning and behaviour have been identified by training professionals (see Lawson, 2006; Leatherman, 2007) as best-practice in order to evaluate training programs based on the Kirkpatrick model.

Interviewees suggested the need for a workshop session focused exclusively on practical elements, such as role plays, case studies, examples, and discussion. This first workshop would place a strong emphasis on practicing the new skills in role plays and scenarios. As noted, such an alternative method would be ideal for producing greater behaviour changes in the long term (Burke & Hutchins, 2007). According to Lawson (2006), such a model would also produce greater satisfaction with the workshop. Adults are self-directed learners who thrive when learning is practical, realistic, and focused on immediate application (Lawson, 2006, p. 28-29). Adults thrive with hands-on learning that incorporates many opportunities to 'try' the new skills, either in hypothetical or actual scenarios, using strategies such as role-playing, discussion of case-studies, and so on (Lawson, 2006).

Applications of the content to both personal and professional contexts would be included in this training program; this study found that perceived *personal* usefulness was correlated with overall satisfaction. It was hypothesized that this effect may have occurred because women are more likely have more experience with negotiation in personal contexts than professional contexts (Babcock & Laschever, 2003). Adult learners compare new information to previous life experience to make sense of it (Lawson, 2006), so the workshop should draw on examples and case studies from both personal and professional life.

After the workshop, the trainees would be given a reflection journal. They would be encouraged to fill out the reflection journal any time they tried to apply the skills they learned in the workshop. The purpose of the journal would be to keep the skills application ‘top of mind’ and to provide the trainer with a running account of challenges and opportunities the trainees would experience (C. Guimont, personal communication, March 11, 2013). As noted earlier, there is support in the literature for the use of journals to encourage critical self-reflection (see Terrion & Philion, 2008). In Terrion and Philion's (2008) evaluation of a training program, which used post-training reflection journals, they conclude that the journals had many positive functions, providing participants with a safe place to reflect on new skills and articulate their experiences with training transfer.

An online discussion forum would also be created for the women in the training group, with both guided and open discussions. This forum would serve the purpose of providing the women with a supportive environment to discuss challenges they may encounter. This recommendation is based on the thesis' finding that having support in the workplace is essential to the transfer of skills. In turn, this finding is supported by the literature, particularly Broad and Newstrom's (2000) study on techniques for maximizing transfer of skills to the workplace. In particular, they note the power of social support for

"initiating and sustaining long-term behavioural change" (p. 96). An online discussion forum would be an easy way for trainees to "receive encouragement for experimenting with new applications of the ideas, principles and skills they acquired" (Broad & Newstrom, 1992, p. 96).

The trainees would also be given an instruction sheet for planning skills transfer opportunities with their manager. They would be instructed to book a meeting with their manager and together identify new opportunities to 'try' the skills that had learned in the workshop. The completed skills transfer opportunity sheet, with the dates and the nature of the opportunities, would then be sent to the trainer for reference. According to Broad and Newstrom (2000), a comprehensive approach that assists the trainee in applying new skills in their natural work environment in safe scenarios with the support of their manager is the most effective approach to creating lasting behaviour change. By identifying transfer opportunities with a supervisor in a structured system, trainees are guaranteed to be provided with opportunities to practice their skills, which has been identified as essential for producing lasting behaviour change (Brinkerhoff & Montesino, 1995; Gaudine & Saks, 2004; Lim & Morris, 2006; Ford, Quinones, Sego & Sorra, 1992; Clarke, 2002).In addition, such a system is designed to ensure that trainees would receive support from their supervisors, which has also been found to be a significant predictor of training transfer (Brinkerhoff & Montesino, 1995; Broad & Newstrom, 1992; Burke & Baldwin, 1999; Clarke, 2002; Foxon, 1997).

The trainees would be reminded that the online training modules can be reviewed at any time to assist with preparation for their transfer opportunities—this would fulfil the request of several interviewees who suggested that a reference guide would be helpful. This was presented as being particularly relevant given the array of different learning styles that

have been identified in the literature (typologies include Dunn & Dunn, 1993; Jacobs & Fuhrmann, 1984; Kolb, 1991; Murrel, 1987). Many adult learners—particularly visual learners—would find it helpful to be able to refer back to written text and diagrams.

When it comes time for these skills transfer opportunities, the trainer and/or the supervisor would be present when the skills are practiced, and feedback sheets would be provided to the trainee on their performance. Trainees would also be asked to reflect on their performance in their reflection journal. If the trainer was not able to be present at these transfer opportunities, they would follow up briefly by phone or in person with the trainee to see how it went and answer any questions they might have. Reflection journals could be 'submitted' to the trainer for individual follow-up, or brought to the next in-person session where trainees could work in small groups to review their thoughts and experiences together.

This method satisfies the need for feedback to be incorporated into the training transfer process, as recommended in numerous studies (see Broad & Newstrom, 1992; Maguire et al, 1978). It would also satisfy the request for one-on-one coaching that participants in this study said would be valuable. Further to that, this method builds in additional support mechanisms (from the trainer, supervisor and peers), which Broad and Newstrom (2000) and Burke and Hutchins (2007) identify as important for facilitating skills transfer to the workplace.

This same 'format' could be repeated multiple times with the same group for different topics, or increasingly advanced iterations of the same topic. In other words, trainees would do a short pre-read of theoretical content in an online module, followed by a practical in-person session, followed by structured opportunities to practice the skills in the workplace (with feedback provided after each opportunity). At every stage, participants would be engaging in critical self-reflection, and providing support for one another in the group

through an online forum. Of course, the trainer would get to know the participants and would become an important point of contact for any questions or concerns they had.

This format is designed to meet the needs of the target audience as identified in this thesis. It retains the elements of CWSE-ON's workshop that were successful in creating a positive reaction, level of learning and behaviour transfer, while addressing several barriers identified by interviewees. It lengthens the training process and includes some one-on-one support using best practices identified by training professionals (Broad & Newstrom, 1992; C. Guimont, personal communication, March 11, 2013; Lawson, 2006; Leatherman, 2007) while also limiting the amount of complex theoretical content covered in in-person sessions. It provides several mechanisms (supervisor involvement, one-on-one coaching, online forum) that ensure participants receive social support in the workplace, which interviewees pinpointed as important for skills development (supported by literature such as Broad & Newstrom, 1992; Burke & Hutchins, 2007). This format also contains several more rigorous methods - such as pre- and post-tests, and observation-based methods - to evaluate the program based on Kirkpatrick and Kirkpatrick's (2006) training evaluation model. As noted, a logical progression of this research would be to implement such a program, and evaluate its effectiveness based on this model in order to determine whether the results are, indeed, more positive.

Overall, the findings of this thesis have numerous implications for the practice of training, particularly as it relates to working with this target audience. Specific insights include the importance of women-only workshops (reaction) and the importance of facilitating discussion and interactivity around important learning items (knowledge). These insights were presented with reference to relevant literature that support the conclusions made here. An alternative to the traditional training model, involving ongoing contact with

the trainee and her manager to create *transfer opportunities*, was presented as a possible option to eliminate barriers to behaviour transfer identified by interviewees. The potential of technology to facilitate the application of this alternative model was also explored. Overall, this alternative system would go a long way to eliminate barriers to behaviour transfer and address a variety of the concerns identified by interviewees, such as the need for one-on-one support and the current lack of involvement of decision-makers in the training process.

Chapter 5: Conclusion

This thesis evaluated the CWSE-ON negotiation skills training program using the Kirkpatrick and Kirkpatrick (2006) training evaluation model. Specifically, a post-workshop questionnaire and semi-structured qualitative interviews were used in order to determine participants' *reaction*, level of *learning*, *behaviour* transfer, and perception of possible organizational *results*. Overall, participants reacted very positively to the CWSE-ON training program, citing the interactivity and opportunity to meet with other women in their organization as particularly enjoyable elements. Results were less positive in terms of level of learning. While it is not possible to accurately calculate learning gains, retention of knowledge was relatively low. That said, consistent with Alliger and Janak's (1989) critique of Kirkpatrick and Kirkpatrick (2006), it has been argued that information-retention was less relevant to this particular training program than behaviour transfer.

Participants were positive about their ability to transfer skills to the workplace, with many providing specific examples of negotiations that they engaged in as a result of having participated in the workshop. However, participants identified both internal barriers (such as a lack of confidence and fear of failure) and external barriers (such as unsupportive managers) that they faced while attempting to apply the skills. The only facilitator to skills

application cited by the participants was support from others, highlighting the importance of having a strong support system in the workplace. Literature was presented to support each of these insights.

Despite the positivity in terms of ability to transfer skills to the workplace, participants were not confident about the ability of such a training program to produce meaningful results at the organizational level. That said, based on the positive results in terms of behaviour change (getting participants to actually engage in negotiations once they returned to the workplace), this thesis concludes that negotiation skills workshops such as the one conducted by CWSE-ON may indeed help advance the status of women in male-dominated fields. Participants reported feeling more confident about engaging in negotiation due to having increased knowledge of negotiation techniques, and the feeling of having been given 'permission' to negotiate. Participants cited several examples of using their new skills, including negotiating a wage increase, negotiating deliverable deadlines, and negotiating the parameters of a new project. In each case, participants indicated that they would not have engaged in such a negotiation had they not attended the negotiation skills training workshop.

While CWSE-ON's workshop was successful in encouraging behaviour transfer, and therefore may represent a small part of the solution in bridging the gender gap in management level positions in STEM, there are many ways in which the workshop could be improved. Based on training and learning literature, as well as suggestions made by interviewees, an alternative training model was proposed. This alternative training model is a more intensive training approach that makes use of technology to encourage pre-reading as a precursor to the in-person interactive sessions and to provide opportunities for structured post-workshop skills transfer. It is recommended that future researchers employ such a model and evaluate its effectiveness, using Kirkpatrick and Kirkpatrick’s (2006) training

evaluation model. This model will provide a tool for understanding how best to use training programs to advance the status of women in male-dominated fields.

Limitations

Due to time constraints and other restrictions, there are inevitable limitations to the methodological approach of this thesis. First, the data collection methods for the evaluation of training could have been more rigorous. In particular, observation-based methods can be a superior way of gauging changes in participants' learning and behaviours following participation in a skills training workshop. However, due to time constraints, resource constraints and privacy concerns, observation-based methods of data collection were not used. As a result, this study relies on self-reported reactions and levels of behaviour transfer. Self-reports of behaviour have the potential to portray the interviewee's actions in a disproportionately positive light. For example, participants might overestimate their attempts to apply the skills in the workplace.

Second, this thesis is limited in its ability to predict future organizational impacts. While some interview questions were designed to address the fourth and final stage of the Kirkpatrick and Kirkpatrick (2006) model, the responses were based purely on speculations by the interviewees; they are not therefore a reliable picture of whether organizational impacts will be achieved as a result of the CWSE-ON training program. Due to time constraints, it was not possible to assess organizational impact using any of the long-term data-driven methods that are typically used at this level of the Kirkpatrick and Kirkpatrick (2006) model.

There is also likely a degree of selection bias in terms of which participants agreed to participate in the follow-up interviews. Only workshop participants who indicated they would be willing to participate in a follow-up interview and subsequently responded

promptly to the subsequent interview request were sampled for interviews. Therefore, it is possible that these people's views were not representative of the larger group of workshop participants. It is likely that those participants who engaged most with the subject matter were those who were most willing to be interviewed about it. Therefore, this group may have been more likely than the wider population of workshop participants to have transferred the skills to the workplace, for example.

Finally, this study is limited by the lack of pre-tests of both knowledge and behaviour. Most training evaluators (e.g. Lawson, 2007) recommend testing participants prior to the workshop in order to gauge their pre-workshop knowledge and behaviour. This procedure allows the setting of a benchmark for analysing post-workshop learning and behaviour data. However, due to time and resource constraints, it was not possible to take these preliminary steps. In order to address this limitation, interviewees were asked to reflect on the skills they had learned in the workshop and to identify specific behaviours they might not have manifested before the workshop experience.

Overall, despite these limitations, this thesis presents a comprehensive evaluation of the CWSE-ON negotiation skills training program. By giving participants the skills they need to effectively communicate their position in negotiations, the program empowers participants to ask for what they want in the work place. Based on this evaluation, it is possible to conclude that such training workshops have the potential to address certain barriers facing women in male-dominated fields. If some of the discrepancy between men’s and women’s wages and organizational roles can be associated with their willingness to engage in negotiation—as researchers like Babcock and Laschever (2003) have suggested—this finding is certainly promising in its implications.

On a larger scale, such a program could potentially help women advance in the workplace more rapidly, resulting in benefits for both the individual and the organization. These findings could form the basis of further action research with the goal of empowering women in the workplace and reducing the gender gap in male-dominated fields.

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Appendix A: Survey

Please answer the following 2 questions without the aid of notes.

What does BATNA stand for?

Complete the following chart:

<table>
<tr><th colspan="4">Dual Concerns Model</th></tr>
<tr><td colspan="2" rowspan="2"></td><td colspan="2">Substantive outcome important?</td></tr>
<tr><td>Yes</td><td>No</td></tr>
<tr><td rowspan="2">Relational outcome important?</td><td>Yes</td><td></td><td></td></tr>
<tr><td>No</td><td></td><td>Avoiding</td></tr>
</table>

Please rank your level of agreement with the following measures, on a scale from strongly agree to strongly disagree.

I enjoyed the training

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

The training was useful to me on a professional level (applications in the workplace)

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

The training was useful to me on a personal level (applications outside the workplace)

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Following this training, I am more confident about my ability to negotiate effectively.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

The trainer was credible

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Overall, how satisfied were you with the training you received today?

Very satisfied

Satisfied

Neither satisfied or dissatisfied

Dissatisfied

Very dissatisfied

Would you be willing to participate in a short follow-up interview in 4-6 months about your ability to transfer skills to the workplace? (circle one)

Yes No

If yes, please provide a contact email: ____

Do you have any feedback on the workshop today? We're excited to hear what you thought about your experience! Please provide your comments in the space below:

Appendix B: Interview Guide

Interview Guide

Please see below for a list of questions that will guide the semi-structured interviews with workshop participants. **Bolded questions** are main questions that will be addressed in the interview, while unbolded questions indicate optional follow-up questions to stimulate conversation. The interviewer will use some or all of these optional follow-up questions at her discretion.

These interviews will be semi-structured, meaning that the interviewer may deviate from these questions. These questions are merely intended as a broad guide to ensure that major topics are covered. Italicized font represents a suggested 'script', but wording of both the 'script' and questions may be adapted to be more conversational in nature.

Interviewee's participant code: ____

Interviewee field of work/study: ____

Interviewee career level (student, early-, mid-, or late-): ______________________

Date of interview: ____

Time of interview: ____

Phone or face-to-face: ____

Introductions (hi/how are you). My name is Jenna and I'm an interviewer for the NSERC Chair. I'm here today to chat with you about your experience with the Negotiation Skills Workshop that you attended [at the University of Waterloo / at Pratt & Whitney].

We'll start with some easy questions (answer the questions above about interviewee field of work and career level)

Excellent! Now we'll get started by talking about what you liked and didn't like about the workshop.

To start, what aspects of the negotiation skills workshop did you enjoy? (~3 minutes)

Would you recommend it to a friend? Why / why not?

If a friend asked you what the workshop was about, how would you summarize it?

What aspects of the workshop were the most useful / practical?

What aspects of the workshop were the most fun / enjoyable?

Choose 2 adjectives to describe the workshop.

Why did you want to participate in the workshop? Did it meet your expectations?

IF THEY SAY THEY CAN'T REMEMBER: Can you describe a workshop you enjoyed in the past? What did you enjoy about it?

What would you change about the negotiation skills workshop? (~3 minutes)

Were you disappointed by any aspect of the workshop?

If you were going to conduct this workshop yourself, what would you do differently?

To what degree to you feel that you retained information you received during the negotiation skills workshop? (~3 minutes)

If you could say there was 1 key takeaway from the training, what would you say it was?

If a colleague came to you and asked you to give them a 'Coles Notes' version of what you learned in the workshop, what would you tell them?

Do you feel you'd be more likely to negotiate now than you were before taking the training? Why?

Do you feel you'd be more successful in a negotiation than you were before taking the training? Why?

When you returned to work/school, were you able to apply the skills you learned in the workshop? (~10 minutes)

If yes, describe a scenario in which you used the skills you learned.

Do you think that using these skills resulted in a more agreeable solution for you than you would have obtained otherwise? (aka. "were you successful?)

Will you attempt to apply the skills you learned in this way again?

How did it *feel* to apply these skills? (probe for 'emotion'-based responses, like: empowering, nerve-wracking, etc.)

IF THEY SAY 'THEY HAVEN'T HAD AN OPPORTUNITY" (*Clarify that we aren't talking about just big negotiations)*

Hypothetically, if you were presented with an opportunity, do you feel you'd be able to apply the skills you learned? (probe)

If you haven't had an opportunity, how do you feel about that? Do you feel you're given enough opportunities to voice your opinion? (probe)

Did you feel there were any factors that hindered your ability to apply the new skills in the workplace? (~5 minutes)

If yes, what barriers to success did you face? (probe based on response: no opportunity? Lacking confidence? etc.)

Would you characterize the barriers as being more internal (i.e. lack of confidence) or external (i.e. lack of support from management)

How 'strong' were these barriers?

Is there any way the workshop design could have been adapted to alleviate these barriers?

Were you successful in applying the new skills in spite of these factors? If so, what enabled you to overcome these barriers?

Do you believe you *will be able to* apply the skills you learned at a later date? If so, when? *How* will you use the skills you learned at this later date?

Did you feel there were any factors that helped you to apply the new skills in the workplace? (~5 minutes)

If yes, what were these factors? (probe based on response for workshop design factors, and workplace environment factors)

Do you have a friend or mentor at work who supports your professional development?

Do you generally feel that your workplace is a supportive environment for applying new skills?

If yes, what is it about your workplace that makes it easy to try new skills?

If no, what could your managers or colleagues do to create a more supportive environment in this regard?

How would your organization be different if every woman employee received negotiation skills training? (~5 minutes)

Do you believe training such as this can have an impact on overall organizational structure and management?

Would this change be desirable or undesirable? Explain.

The negotiation skills workshop you attended was provided by the NSERC / Pratt & Whitney Canada Chair for Women in Science and Engineering. What other services would you like to see CWSE-ON provide at your location? (~5 minutes)

Do you prefer in-person events, or online resources such as web training and web features?

What type of events do you prefer? (probe for responses such as 'professional development', 'networking', etc.)

Do you prefer events held at your [company / school] with colleagues you know, or do you prefer more general events with women from other [companies / schools].

Do you prefer events with both men and women from your company, or events for women only?

If CWSE-ON was to host another event at your location, what would you want it to be?

What are some barriers to participation in events that you typically face?

How might CWSE-ON help you overcome this barrier?

Appendix C: Ethical Approval for Secondary Use of Data

File Number: 04-14-06 Date (mm/dd/yyyy): 04/24/2014

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

Ethics Approval Notice

Social Sciences and Humanities REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

First Name	Last Name	Affiliation	Role
Jenepher	Lennox Terrion	Arts / Communication	Supervisor
Jerie	Shaw	Arts / Communication	Student Researcher

File Number: 04-14-06

Type of Project: Master's Thesis – Secondary Use of Data

Title: The Effectiveness of Negotiation Skills Training Program in Advancing the Status of Women in Male-Dominated Fields

Approval Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
04/24/2014	04/23/2015	Ia

(Ia: Approval, Ib: Approval for initial stage only)

Special Conditions / Comments:
N/A

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