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How IT Professionals Acquire Soft Skills

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Abstract

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Project Study Submitted in Partial Fulfillment

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In this study, I investigated how information technology (IT) professionals learn/acquire soft skills. Little is understood about how IT professionals describe and apply the soft skills that they consider necessary for their own employability. Exploring how IT professionals describe and apply soft skills is important to their future work and career advancement. The purpose of this basic qualitative study was to better understand how IT professionals learn/acquire soft skills. Bandura's 1986, social learning theory served as the organizational conceptual framework of this study and guided the research question, which asked how IT professionals acquire learn/acquire soft skills. This research question addressed the major focus of this study. Participants for this basic qualitative study consisted of 20 IT professionals who possessed three or more years of work experience. An interview protocol with semi-structured interview questions was developed and administered to collect data that addressed the major research question. The interview data from the IT professionals were analyzed using inductive analysis resulting in two themes. The first was the foundation of soft skills is shaped by family and the community. The second theme was skill requirements not listed in the job description. Based on the findings a policy recommendation paper was written. The outcome of this study contributes to positive social change because the findings can be used to help with mapping IT workers' learning paths for acquiring soft skills.

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Dedication

I dedicate this study to my grandmother who passed before I could finish. My grandmother was kind and encouraging and always put others before herself. She was a giver and a great listener. She modeled integrity and extended grace to everyone. My grandmother inspired me to live with purpose. I did not always know what that meant because I did not always understand what my purpose was. Once I did, I began to live a better life. For that reason, I decided that I would spend the rest of my life helping others discover their purpose.

Acknowledgments

I would like to acknowledge my mother. She is my rock. Higher education and career advancement have been the dominant focus for most of my adult life. During that period, I experienced both wins and losses. Through it all, my mom has been there, praying for me and cheering me on. For that, I am grateful.

I would also like to acknowledge my committee Chair; Dr. Earl Thomas. Obtaining this degree was one of the most challenging goals I've ever had to achieve. There were plenty of times when I wanted to give up. My committee encouraged me to keep going. I could not have accomplished this goal without them.

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Section 1: The Problem

Introduction

The problem to be investigated through this basic qualitative study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Leslie (2015) suggested that IT professionals are not adequately prepared with the needed soft skills for participating in the digital age workforce. In today's workplace, technical skills are not enough for workers to compete in a rapidly changing workplace environment (Dean & East, 2019). Manzoor (2012) argued that despite soft skills being considered prime expertise, IT professionals often face a soft skills gap and a skills mismatch to digital age job demands. Others (2019) further explained that IT professionals, regardless of their technical qualifications, struggle to secure jobs due to a lack of soft skills. Manzoor (2012) believed many IT professionals often know little about what soft skills are required to secure and maintain employment in the digital age.

IT Workers at Sherman Technologies

Sherman Technologies, a pseudonym, is a leading global company that provides technical support to sectors around the world and has opted to upskill its IT workers due to recent organizational restructuring. In 2017, Sherman Technologies participated in a national survey conducted by ManpowerGroup. ManpowerGroup supports continuous learning and development for the growth and success of IT professionals. It is a global workforce solutions company that works with organizations to restructure the way they do business by developing workforce talent. ManpowerGroup commissioned Info Corp to carry out both qualitative and quantitative research in 2017. They surveyed employers

across several industry sectors, including Sherman Technologies (ManpowerGroup, 2018). One of the goals of the study that ManpowerGroup conducted was to use qualitative research gathered from interviews to determine if there was a gap in the skills IT professionals have and the skills, they need to develop to access employment in the digital age. The results of the ManpowerGroup study provided insight into the soft skills that are most valued and in-demand by Sherman Tech's industry partners (ManpowerGroup, 2018). They also offered an in-depth look at the impact automation has had on the workforce, including in IT professions. The findings of the ManpowerGroup survey also illustrated that IT professionals at Sherman Technologies would be impacted by digital disruption, a radical change to an existing industry or market due to technological innovation (ManpowerGroup, 2018). The findings of the survey further indicated that IT professionals felt that there was a gap between the soft skills they had and the essential soft skills they needed to maintain access to employment in the digital age.

The Problem

The problem to be investigated through this study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Little is understood about how IT professionals describe and apply the soft skills that they consider necessary for their own employability (ManpowerGroup, 2018). Knowing about the needed soft skills could close or reduce the gap between job expectations and hiring skilled IT professionals. In a 2019 report, the Society for Human Resource Management found that 51% of its members who responded to a survey said that education systems have done

little or nothing to help address the skills shortage. The report begins the exploration of the skills gap. To supplement these preliminary findings, Society for Human Resource Management (SHRM) will be conducting additional studies in 2022 and beyond. According to the report, the top missing soft skills, according to these members: are problem-solving, critical thinking, innovation, and creativity; the ability to deal with complexity and ambiguity; and communication (SHRM, 2019).

While soft skills are a sought-after skillset, they cannot always be acquired easily. According to Gallup's 21st Century Skills and the Workplace Survey in 2013, most respondents (59%) agreed that they developed most of the skills they have used in their current job outside of school. The study also revealed that four in 10 corporations and almost half of the academic institutions believe that recent graduates lack certain so-called "soft skills" needed in the workforce to be successful, including emotional intelligence, complex reasoning, and negotiation (Microsoft Partners in Learning et al., 2013).

Rationale

The problem choice is justified because the labor market demands new methods focused on developing interdisciplinary competence and soft skills (Liventsova et al., 2018). Businesses will increase their dependence on IT professionals in the future. IT leaders of the digital age must understand how today's organizations will change due to digital transformation (Ahlemann, 2016). The digitization of the economy has also changed hiring, management, and training practices, making soft skill development even

more prevalent. Twenty-first-century professions require workers with digital skills and advanced soft skills (Liventsova et al., 2018). The findings of the study may provide information to assist the local study site regarding professional development programs that may be needed for IT professionals. In a recent survey that targeted millennials from several countries, many of the respondents indicated that they were expecting to leave their places of employment because they were unhappy with how their soft skills were being developed (Deloitte, 2019). For Meeker (2019), COVID-19 has transformed modern lives in ways society is only beginning to understand. This includes everything from telecommunications to applying automation and artificial intelligence (AI) to everyday services (Meeker, 2019). This study is to better understand how IT professionals learn/acquire soft skills at the local study site.

Definition of Terms

Artificial intelligence: A computer's ability to perform tasks that are commonly associated with intelligent beings (Copeland, 2020).

Digital disruptor: Any entity that impacts the shift of fundamental expectations caused by digital capabilities (McQuivey, 2013).

Digital age: A period when information travels freely and quickly (O'Connell, 2018).

Fourth Industrial Revolution: CPS or "cyber-physical systems" involving new capabilities for people and AI (Schwab, 2017).

Machine learning: A branch of artificial intelligence that focuses on computers' use of data to imitate the way that humans learn (IBM Cloud Education, 2020).

Nontechnical skills: Basic or general skills (Ghouse et al., 2018).

Soft skills: A plethora of people skills that are imperative to the success of professionals in the workplace (Matteson et al., 2016).

Significance of the Study

According to the *Harvard Business Review*, soft skills such as teamwork are one of the keys to the success of an organization (Cross et al., 2016). The need for soft skill training has increased as the field of adult education has been propelled further into the digital age (Cross et al., 2016). For example, the demand for soft skills, such as interpersonal skills, has increased in the workplace (Schirf & Serapiglia, 2017). The findings of the study will help IT administrators at the local site better understand how IT professionals learn/acquire soft skills. The findings may also be used to support professional practice by aiding the development of training programs that focus on developing soft skills. The findings of the study may provide information to assist in the development of soft skills at the local study site.

Research Question

The problem to be investigated through this study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Little is understood about how IT professionals describe and apply the soft skills that they consider necessary for their own employability (ManpowerGroup, 2018). The purpose of this study is to

better understand how IT professionals learn/ acquire soft skills. Bandura's 1986, social learning theory serves as the organizational conceptual framework of this study. The following research question is offered to address the major focus of this study: How do IT professionals learn/acquire soft skills?

Conceptual Framework

The conceptual framework for this study is Bandura's social learning theory. Bandura's social learning theory suggests that all learning is a result of direct experience with the environment through the processes of association and reinforcement (Bandura, 1986). Bandura argues that people can learn new information and behaviors by simply observing other people's reinforcement (Bandura, 1986). Bandura (1986) referred to this as observational learning. Furthermore, Bandura suggested that in social learning theory not only can a person learn by observing others, but they can also change their own behaviors by observing a positive role model. Observational learning is a major component of Bandura's social learning theory. Social learning can be used by researchers to investigate ways that positive role models can be used to encourage desirable behaviors and facilitate social change (Bandura, 1986).

According to Bandura (1986), learning would be labor intensive if people had to rely solely on the effects of their own actions to inform them what to do. Bandura summarized three core concepts at the heart of social learning theory. First, there is the idea that an individual can learn through observation. The next concept suggests that internal mental states are an essential part of this process. The third concept of this theory

acknowledges that even if learning occurs, it does not mean that the learning will result in a change.

Review of the Literature

I searched multiple databases to locate peer-reviewed articles, including Google Scholar, Academic Search Complete, SAGE Journals, PsycINFO, PsycARTICLES, SocINDEX, ERIC, ProQuest, SAGE Journals, and Education Source. I searched for articles and studies published between 2017-2021. Multiple combinations of the following keywords were used to locate relevant research: soft skills gaps, professional development, information technology, adult learning theories, and the 21st-century workforce. To ensure that current research was located, citation chaining on Google Scholar was completed to find the most relevant articles. In the following subsection, I have highlighted current research regarding social learning, and the three core concepts that make up social learning theory are explained. Additional topics addressed include learning models, which include behavioral and observational learning, as well as Goleman's performance-based model of emotional intelligence, which assesses workers' levels of emotional intelligence.

Social Learning Theory

There are four core concepts at the heart of social learning theory including differential reinforcement, vicarious learning, cognitive processes, and reciprocal determinism (Bandura, 1986). Reciprocal determinism describes the associations between behavior, environmental and personal factors, each affected by the other two factors

(Bandura, 1986). Cognitive processes include encoding, organizing, and retrieving information (Bandura, 1986). Differential reinforcement occurs when a behavior results in positive or negative consequences received from the environment or the self (Bandura, 1986). And Vicarious learning occurs through observation of others' behavior, attitudes, and outcomes of the behavior (Bandura, 1986). Social learning theory proposes that individuals learn by observing the behaviors of other models (Bandura, 1986). These individuals then evaluate the effect of those behaviors by observing the positive and negative consequences that follow. Social examples of social learning environments include internships attended by young adults. Young adults or interns observe the behavior of IT professionals.

Social learning theories emphasize the importance of the social context. For example, Bandura (1986) suggested that young adults' aggressive actions are a result of what they witness in contrived social settings. Thus, aggressive behavior is thought to occur because it has been either observed or reinforced over time. Social learning theories suggest that people learn to exhibit behaviors because they observe others' behaviors and can see how these behaviors are reinforced over time (Bandura, 1986).

Observational Learning

Observational learning describes the process of learning by watching others, retaining the information, and then later replicating the behaviors that were observed (Bandura, 1986). Bandura (1986) identified three basic types of observational learning: a live model, which involves an actual individual demonstrating or acting out behavior; a

symbolic model, which involves real or fictional characters displaying behaviors in books, films, television programs, or online media; and a verbal instructional model, which involves descriptions and explanations of behavior. Several learning theories emphasize how direct experience, reinforcement, or punishment can lead to learning (Bandura, 1986).

There are four processes in observational learning: (a) attention, (b) retention, (c) reproduction, and (d) modification. Please include a discussion of each one of these processes. Multiple stages of observational learning need to occur for meaningful learning to take place. If the observer can focus on the model's behavior, then the next step is the ability to recall what was observed. For an observer to learn, they must possess a mindset that is open to new ways of perceiving the world and behaving (Bandura, 1986). The next stage in observational learning is attempting to replicate the observed behavior. Engagement in new behavior requires motivation. Even if the observer can imitate the observed model, if they lack internal motivation, then chances are they will not follow through with the newly learned behavior (Bandura, 1986).

Emotional Intelligence

Emotional intelligence is defined as an individual’s ability to identify and manage feelings and use the information learned to adjust future behavior (Goleman, 1995). Emotions circumscribe the traits that define an individual’s soft skills (Goleman, 1995). Goleman developed a performance-based model of emotional intelligence to assess employee levels of emotional intelligence as well as identify areas of improvement. The

model consists of five components: self-regulation, self-awareness, internal motivation, social skills, and empathy (Goleman,1995). Soft skills consist of a blend of people and interpersonal skills. According to Goleman (1995), social awareness, relationship management, self-management, and self-awareness are descriptors of soft skills.

Soft Skills and the Future of Work for IT Professionals

According to the Asian Society Center of Global Education (ASCGE), there are multiple soft skills needed for an individual to become adaptable as an adult (Isa, 2018). These soft skills include leadership, collaboration, and good communication skills (Isa, 2018). Skills such as collaboration and creativity will be integral to success. There is value in nurturing soft skills among adult learners. Soft skills help with building social capital, which is driven by career development (Ghaffar et al., 2018). Social capital is composed of contacts and memberships in networks that can be used for personal gain (e.g., Cabrera et al., 2006; Perna & Titus, 2005). Soft skills are personal attributes that enhance an adult's interactions, as well as their job performance (Parsons, 2008). Soft skills, like all skills, will not come naturally at the professional level. They require constant updating and evaluation to hone (Dr. M. Pita, Sr. Consultant, December 21, 2018). While the L&D unit at the firm offers a plethora of career development programs that focus on efficiency and improving productivity, the problem to be investigated through this study is that these programs fall short of building social capital and enhancing soft skill development (L. Schlangen, Instructional Designer, October 19, 2018). The training should offer a greater emphasis on improving social capital downward and curating team member experiences by improving listening and

communication skills (Dr. M. Pita, Sr. Consultant, December 21, 2018). There is also a need for greater training on true self-esteem and motivating others. An awareness of one's own motivators is essential to achieving success (R. Waller, Sr. Instructional Designer, December 17, 2018). The career development program at the firm presents a gap in practice because it doesn't provide adequate access to training on soft skills and enough social capital to support the development of career aspirations.

Professional development programs that foster soft skills are rethinking their approach, the pivot is late in its efforts to understand the essential qualities needed to have a successful career path. This does not only apply to IT workers but, adult professionals in general. Essential qualities for a successful employee to possess include soft skills as well as connecting complex ideas (ManpowerGroup, 2018). For example, interpersonal skills are vital and are a critical part of an individual's personality (Khasanzyanova, 2017).

Enhancing Leadership Styles With Soft Skill Development

Often the workplace relies on formal education to foster soft skill development. Lee et al. (2019) argued that the exponential pace of technological advancement will make traditional higher education obsolete and replace it with lifelong microlearning and upskilling models. Lee describes what today's business world calls soft skills. And the classic four-year college education, with its emphasis on critical thinking, debating, viewing issues from several angles, and communicating clearly, was designed to teach these skills (Lee et al., 2019). In the 21st century, there is a need for a lifelong approach

to developing and enhancing soft skills. The development of these skills will ensure that adequate workforce resources are available and employable (Southeast Michigan Council of Governments [SEMCOG], 2012).

Soft skills are not always learned in a traditional education setting. Education is the most fundamental resource a nation can offer to its citizens. Modern society has become a network society that runs based on knowledge and information (Stingl, 2019). By 2025 many familiar jobs will be performed by machines. Machines will be doing basic tasks that require abilities such as operational skills (functioning as forklift operators, assembly line workers), administrative skills (secretaries, and bank tellers), and computational skills (accountants) [SEMCOG], 2012). However, despite being highly qualified and receiving adequate training in universities and colleges, many outgoing professionals remain unemployable. One of the principal reasons is that the current academic system gives more priority to teaching technical skills than imparting soft skills and behavioral attributes to students (Stingl, 2019).

Leaders in IT could enhance their leadership styles by understanding EI competencies and practicing them daily with their workers (Trejo, 2016). Integrating soft skills into the curricula can improve an adult's learning outcome (Tseng et al., 2019). An executive-search firm, Heidrick & Struggles, evaluated its recruiting practices. The results of the evaluation indicated that technical expertise is less of a priority than soft leadership skills (Groysberg et al., 2011). According to industry leaders with Deloitte, the

demand for soft skills is surging. In the 21st century, soft skills are critical proficiencies for workplace training and formal education, education (ManpowerGroup, 2018).

Lifelong Learning Soft Skills Framework

The Talent Task Force, created by SEMCOG and the Metropolitan Affairs Coalition, has developed a lifelong learning soft skills framework (SEMCOG, 2012). This framework relates to the approach of study because it promotes the need for a lifelong learning approach to developing and enhancing soft skills. It is a plan that identifies basic skills for workplace success and documents some of the efforts to teach, reinforce, model, and assess these skills by eight stakeholder groups (SEMCOG, 2012). According to the Talent Task Force, soft skills are not necessarily a badge of honor, but rather a frame-of-mind issue (SEMCOG, 2012).

The lifelong learning soft skills framework addresses many of the challenges faced by employers in raising awareness surrounding soft skills. There is a plethora of soft skills categories that are fostered by workforce development professionals (SEMCOG, 2012). The challenge is that many of the categories focus on a specific audience, which limits their applicability. The framework also outlines a matrix that identifies a cluster of soft skills and a mix of stakeholder groups. The skills are divided into categories: life skills, which include problem-solving, teamwork, time management, conflict resolution, and financial literacy; personal traits, which include ethics, initiative, judgment, positive attitude, and self-confidence; and, finally, academic-learned skills, which includes basic digital literacy, reading, writing, and arithmetic. According to

SEMCOG (2012), the matrix outlines the soft skills and partnering groups that shape the framework. Additionally, the matrix highlights the most appropriate stakeholder role(s). One of the goals of the framework is to ensure that adequate workforce resources and qualified human capital are available to the IT industry. (SEMCOG, 2012).

Furthermore, soft skills are learned incrementally and therefore should be fortified over time to reflect career and education development (SEMCOG, 2012). While technical credentials are of growing importance, there is still limited adoption of common soft skills credentials that are acceptable across sectors and employers. Soft skills are constructed incrementally, especially for IT professionals. The Lifelong Learning Soft Skills Framework outlines several of the challenges faced by IT workers and stakeholders raising awareness of the need for building an incremental process for developing soft skills. This includes both current and future workers. There is a need for a holistic, incremental approach to soft-skill development to ensure that workers have a range of skills when they enter (or re-enter) the workforce. The main challenges are the inconsistency of application among providers as well as a limited focus on building upon previous soft-skill development (SEMCOG, 2012).

Many programs related to soft skills development are facilitated by workforce development (SEMCOG, 2012). Because soft-skill development is not innate and requires instruction, parents also play an important role in the educational development of their children.

Adopters of soft skills should be able to describe and apply the soft skills that they frequently use in their job and identify the soft skills they are expected to have to perform their roles in the digital age. Soft skills should be modeled over time by different stakeholders (SEMCOG, 2012). As industries shift to more advanced, automated processes, employers will need additional workers with IT skills to drive transformation. Twenty years ago, consumers interacted more with human workers (SEMCOG, 2012). Today, AI is increasingly replacing those workers, leaving IT professionals to service the machines. IT professionals need communication and collaboration skills to function in their roles; both communication and collaboration are soft skills and descriptors of emotional intelligence (SEMCOG, 2012).

The digital age has ushered in the rise of millennials in the workplace. Organizations have placed greater emphasis on the need for workers with enough soft skills (Adair, 2007). In 2018 Bloomberg Next study sponsored by Workday – "Building Tomorrow's Talent: Collaboration Can Close Emerging Skills Gap" – included responses from 200 senior-level individuals from both academia and business. According to the study, employers are now more focused on interpersonal skills rather than GPA. Millennials now occupy many of the available management positions as boomers retire. Millennials, also known as Generation X or Gen Y, are the demographic cohort following Generation X and preceding Generation Z. Researchers use the early 1980s as starting birth year for millennials. Baby boomers, born from 1944 to 1964, Generation X leaders, born from 1965 to 1979, Generation Y, born from 1980 to 1994, and Generation Z, born from 1995 to 2015 (Inspiring millennials and managing gen y & z and millennial soft

skill gap, 2015). The formative years of each generation are very different from each other. Although it is difficult to draw clear boundaries along these generational lines and fruitless to overgeneralize, they are each, in part, a product of their time. With the boomers and Generation X heading toward retirement, Generation Y and Generation Z is the future of business (Panwar & Mehta, 2019). The need for workers in the digital age to possess soft skills has long been established. Leaders are tasked with responding to the rapid shift in the need from hard skills to soft skills (Adair, 2007).

The digital age now impacts teaching and development and will continue to do so in the future (Preston et al., 2017). Deloitte produced a professional development soft skills model that indicated that soft-skill occupations will dominate the job market by 2030 (ManpowerGroup, 2018). The digital age will usher in a need for new skilled workers that can design and program AI (Jagannathan et al., 2019). The key attributes possessed by the workforce in the digital age include basic digital skills. Soft skills that support the technology sector help to improve the workplace (Darie et al., 2019). AI and robotics have changed the landscape of the job market. Some jobs have disappeared, while new ones have been created (Jagannathan et al., 2019). To survive as a leader in the digital age, the leader must be a strategic thinker. While the education system assists with the building of soft skills, there is a higher value placed on self-taught skills and on-the-job training than those learned in a formal education setting (Glazer, 2017).

Today, communication encompasses everything from emails and social media to speaking, giving feedback, and creating rapport. Communication is a soft skill. Other soft

skills include strategic thinking and interpersonal skills, which are also in skillsets employers across all industries want to see. Today many social connections are online. Instead of joining a club, people join an app or an online group. Instead of sitting down with someone and sharing, they share photos and news snippets on phones and tablets. The demand for soft social skills in the workplace has increased in the last twenty years (Borner et al., 2018). According to Peter Martin, Partner with Gosselin/Martin and Associates, Mystic, Conn, in addition to the logistics of managing facilities, leaders will also need to possess the needed soft skills to facilitate board meetings or explain sophisticated concepts (Borner et al., 2018).

Communication and asking skills are crucial in IT positions where people work across teams leading digitization (Ghouse et al., 2018). This is because many IT positions are siloed where individuals work independently remotely or in office cubicles. This means fewer interactions with humans and greater interaction with technology. This response requires collaboration skills which are an important soft skill possessed by IT professionals (Ghouse et al., 2018). Emotional intelligence allows IT professionals to better collaborate with customers and stakeholders (Lee et al., 2019). This is because Emotional intelligence (EI) forms the juncture at which cognition and emotion meet, it facilitates our capacity for empathy, communication, and our ability to navigate social situations and conflict (Lee et al., 2019). IT workers need communication, critical thinking, and collaboration skills to function in their roles. Research suggests that traits like creative problem-solving and emotional intelligence will empower future generations to thrive in the digital age (Lee et al., 2019). The digital age includes a mixture of diverse

workgroups that possess the ability to interact globally with a blend of cultures. The ability to use communication skills is important for employees to understand their workplace peers.

The 4th industrial revolution is a disruption (Oldham & Da Silva, 2015). A digital disruptor is a situation or entity caused by technological advancements that fuel a shift in fundamental behaviors in culture (McQuivey, 2013). West (2018) warned that the digital economy is in the early stages of its disruption. The pace of change is expected to accelerate. The difference between the 4th industrial revolution compared to its predecessors is that the change is not linear; rather, it is exponential. This response will require rapid change adoption. Social change implications may include job sustainability and community economic enhancement. The future of work will impact us all. An example of digital disruptors is AI implemented in workplaces that aim to improve process efficiency. While a learning management system (LMS)—software that companies use to develop, deliver, and track training for employees—can reduce cost and improve efficiency, the system eliminates the need for human workers such as trainers and increases the need for IT specialists to administer the system.

The LMS is a digital disruptor because it causes change by implementing technological advancements that fuel a shift in fundamental behaviors in the workplace. The LMS, like much of the technology today, contains an AI component, which is a digital disruptor. Digital disruption is the potential threat to a company's viability posed by digitally enabled competitors. One example is the disruption of the retail industry by

digital competitors, such as the disruption of the transportation industry by Uber and Lyft. As automation becomes more sophisticated, AI is disrupting the workforce by eliminating the need for people. For instance, AI-empowered factory robots automate assembly line activities. AI has already become an integral part of our work lives.

IT professionals face an increasing role diversification change. IT professionals are challenged with developing soft skills and continually adopting new ones (Trejo, 2016). In response to this phenomenon, many organizations aim to better understand emotional intelligence when their actual goal should be to better understand the link between organizational performance and emotion (Chin et al., 2015). Leadership should adopt ways to make EI learning and development a continuous part of employee development (Trejo, 2016).

Today, IT is cross-functional and a contributor to business transformation. This means that every role in an organization is supported by IT. Whether it is setting up technology during onboarding, submitting a timecard, or requesting time off, these tasks are supported by IT. IT professionals need soft skills such as communication, interpersonal, and listening skills to successfully support the organization. Possessing minimal or no soft skills can negatively affect a worker’s ability to obtain and maintain employment (SEMCOG, 2012). Both LMS administrators and workers will require technical support for training and troubleshooting technical issues. An IT employee can train team members on troubleshooting tips and support the end user's experience with the LMS.

Soft skills used as a basis for the development of technical functions are the skills the industry desires most (Kennedy, 2015). For example, the LMS administrator is managing a system that has technical functions. Aside from managing the technical aspects, the IT professional is also charged with the task of customer service and collaboration with other IT workers. Both customer service and collaboration are soft skills. This is an example of how soft skills are used as a basis for the development of technical functions.

IT may be the most challenging program in terms of skill gaps due to the fast pace of change in hardware and software development. The role of IT professionals in industries and organizations has expanded over the years. From simple encoding of business transactions to and generation of reports, IT has stretched on to become an important means for various forms of business process outsourcing (Patacsil & Tablatin, 2017).

In a world where IT knowledge and soft skills are critical elements for nations to prosper, primacy is placed on the quality of soft skills and skillsets to meet the demands of the industries (Ahmad et al., 2019). Despite these demands, both public and private schools are facing gaps in producing graduates who can meet industry demands (Patacsil & Tablatin, 2017). One reason for the skills gap is that many of the graduates are not equipped with industry-relevant soft skills, especially in industries related to science and technology (Ahmad et al., 2019). IT professionals perceive those hard skills as especially

important while industry experts perceive soft skills as somewhat important (Patacsil & Tablatin, 2017).

Opportunities and experiences for students to engage in soft skill development and employability skills are provided within a system that includes the home and the parent, the school, and the teacher (DiBenedetto & Myers, 2016). Apart from the schools, the role of family and friends must also be considered because it may affect the behaviors and practices of the students. Therefore, it is recommended that a study in secondary schools be carried out to determine the factors that affect the practices of soft skills (Ahmad et al., 2019). Teachers need support to prepare students to be career ready. Students learn career skills in an environment that is built to support their needs (DiBenedetto & Myers, 2016).

Implications

SEMCOG (2012) suggested that soft skills are acquired/learned incrementally and thus should be fortified over time to reflect career and education development. Employers in the U.S. are experiencing labor shortage recruitment challenges specifically related to a gap between the skills they need employees to possess, and the actual skills employees bring to the workplace (SEMCOG, 2012). ManpowerGroup, a global workforce solutions company, commissioned Info Corp to carry out a qualitative research study in 2017. Employers across several industry sectors were surveyed (ManpowerGroup, 2018). The findings of the survey revealed that IT professionals felt there was a gap between the soft skills they possess and the essential soft skills they need to maintain access to

employment opportunities in the digital age. Research can provide insight into how IT professionals describe and apply the soft skills that they consider necessary for their employability. This qualitative study will address a local problem that focuses on exploring how IT professionals describe their application of the soft skills that they consider necessary for their employability (ManpowerGroup, 2018). The purpose is to better understand how IT professionals learn/acquire soft skills.

The results of this study may inform the development of a Soft Skills IT Professional Development/Training Curriculum. This study in many ways will contribute to the advancement of career and education development by emphasizing the need for a lifelong approach to developing soft skills. This study may contribute to social change by identifying critical soft skills training strategies for adults seeking to maintain access to employment in the digital age. The findings may also afford educators the ability to upskill IT professionals on the soft skills they are expected to have to perform in their roles as well as identify skillsets with growing market demand to possibly tap an underutilized segment of the workforce. Alternatively, the study results could lead to recommendations that address workforce training requirements for IT professionals.

Summary

As addressed in my analysis of recent research, the digital age makes it an essential hiring practice to recruit someone that can learn new skills quickly. These skills will ensure that IT professionals have competitive advantages in the labor market of an information-orientated society (Korableva et al., 2019). Technological change and social

skills are important in the workplace (Ghouse et al., 2018). The technological gap that universities have in upskilling and developing IT professionals can be resolved if the technological companies cohesively promote the training of future IT professionals (Glazunova et al., 2017). The purpose of this study is to better understand how IT professionals learn/acquire soft skills. In the following section, the research design and details regarding participant selection are described. Information on how data will be collected and the process that will be used for data analysis is included. The additional discussion addresses details about informed consent, data storage, and ethical issues.

In Section 2 I will outline the methods that I will employ. Data collection instruments and the data analysis approach are also described in this section. Section 2 will also outline the techniques used to analyze the data that I will collect. The section will conclude with a summary of my findings.

Section 2: The Methodology

Qualitative Research Design and Approach

Qualitative Research

The purpose of this basic qualitative study was to better understand how IT professionals learn/acquire soft skills. Qualitative research is based on how meaning is constructed. Qualitative researchers believe that knowledge is continuously constructed by people as they engage and make meaning of the experience or phenomena under study (Merriam, 2009). The primary goal of a qualitative research study is to uncover and interpret these meanings (Creswell, 2014). Obtaining participants' perspectives is

appropriate for qualitative research because qualitative research focuses on the nuances between individuals and their environment and aims to gain an in-depth understanding of how those individuals interpret their experiences (Hall & Harvey, 2018).

Justifying a Basic Qualitative Design

This basic qualitative study addresses a local problem; hence, a basic qualitative design is an appropriate method. The problem that was investigated through this study is that IT professionals do not participate in formal learning experiences for acquiring soft skills. The design derives logically from the problem statement because the problem to be investigated through this basic qualitative study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Initially, an ethnographic design was considered. However, it was not well suited for this study given that the purpose of this investigation is not to investigate the cultural context of working in the digital age. Another option that was considered was grounded theory. The central purpose of grounded theory methodology is to develop theories grounded in the data gathered from participants. This is not, however, the focus of this study.

Qualitative research is best used for deeply exploring a topic or idea when you want unprompted and unbound input rather than set answers to structured questions. Also considered was quantitative research, which is used as a deductive process to test prespecified concepts and theories. Given that there were no prespecified concepts or theories and no knowledge of what to expect, to define the problem, a quantitative study was not a suitable approach. The focus of this qualitative study was to better understand

how IT professionals learn/acquire soft skills. A fourth option that was considered for this study was a case study. A central purpose of case study methodology is to study phenomena within a particular context with the caveat that context will result in different data being collected (Creswell, 2014). However, the focus of this study is not within a particular context and, therefore, it was determined that the case study methodology was not appropriate for this study. Finally, a phenomenological inquiry may be adopted to explore the unique meaning structures of any educational experience or lived phenomenon. I chose a basic qualitative design because the design is generally based on a social constructivism perspective (Creswell, 2014). Research problems become research questions based on prior research experience (Creswell, 2014). The goal of this approach is to extract subjective understandings of participants' own experiences. Hence, a basic qualitative design is an appropriate method.

One example of the useful applications that may come from this study is the contribution to professional development programs and training curricula. This design type affords the researcher the ability to answer straightforward questions without framing the inquiry within an explicit theoretical or philosophical tradition. Qualitative research is a flexible process that is highly dependent on the researcher and the context of the study (Yilmaz, 2013). In qualitative research, self-reflection and one's role in society are vital (Ravitch & Carl, 2019).

Participants

Sampling and Justification Strategy

The most appropriate sampling strategy is purposeful sampling. Purposive sampling is appropriate for this study because the study participants must meet specific criteria (see Smith et al., 2009). The rationale behind purposeful sampling derives from the emphasis on an in-depth conceptualization of specific cases (Patton, 2015).

According to Creswell (2009), a qualitative study is defined as an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting. As I interviewed the first few participants, I asked each of the participants to refer me to other eligible participants. Snowball or network sampling is one of the most common forms of purposeful sampling (Merriam, 2009). This strategy involved identifying a few key people who meet the criteria established for participating in the study. The sample starts small but "snowballs" into a larger sample throughout the research. For example, I interviewed 22 IT professionals with soft skills who can help locate more IT workers that fit the sample criteria. This process continued until all the interviews were completed.

Sample Size

Participants for this study consisted of 22 IT professionals with various backgrounds. The experience level ranged from two years to as many as 20 years. There were 11 males and 11 females. Two females were eliminated due to questionable

background validity. This left nine females and 11 males for a final total of 20 participants included in the data analysis. Fifteen of the participants were software engineers, two were training consultants, and three held leadership titles. Three of the participants were active military or veterans. All the participants were actively working in the IT field. I used LinkedIn and my official Walden University email to select and communicate with the participants. Participants were made aware of the purpose of the study when they received the invitation. They were also provided with an overview at the beginning of the interview and offered an opportunity to ask questions before the start of the interview. Upon completion of each interview, I asked each of the participants to refer other eligible participants to me. This strategy involved identifying a people who met the criteria established for participating in the study. This process continued until all contacts were exhausted and enough participants were reached.

The participants were also encouraged to ask questions throughout the interview process. Participants had the option to withdraw at any time before the scheduled interviews. I stated that participation was voluntary. Participants also had the right to refuse participation and refuse to answer interview questions. Before starting the interview recording, I asked participants if they had ever participated in a doctoral study. Five of the participants had previously participated in a study in the past. I then shared background of the problem and the purpose of the study.

Gaining Access to Participants

I developed a list of 20 IT professionals who currently work for, report to, or are sponsored by information technology companies and/or teams, regardless of title, rank, and years of experience. Participants were identified by conducting a simple keyword search by industry, skill set, and employment history on LinkedIn. Before the interviews, I had no contact with the participants. Given my long-standing membership with LinkedIn as a learning and development professional, I was digitally connected to some IT professionals via their LinkedIn profiles. To avoid bias, I limited the number of known participants that are previous coworkers or affiliates.

Establishing a Researcher-Participant Relationship

Qualitative researchers must ensure that both the researcher and the participant mutually benefit from the scholarly exchange. As the researcher, it is my responsibility to educate the participants on my role as well as theirs. I made this clear at the beginning and throughout the interview process. Reciprocity is critical in a researcher-participant relationship. Participants were made aware of the purpose of the study when they received the invitation as well as at the beginning of the interview. The participants were also allowed to ask questions before and throughout the interview process.

Participants' Rights

A consent form was provided to each participant which explained the purpose of the study, the elective nature of their participation, and their right to confidentiality. Once the participants agreed to participate, a consent form was then emailed to their preferred

email address. Consent forms were distributed and executed via DocuSign before the scheduled interview. I explained to each participant their responses will be included in a study that aims to contribute to social change by identifying essential soft skills training strategies for adults seeking to maintain access to employment in the digital age. I also reminded them that the interview process intends to collect data to address the research questions.

Data Collection

Semi-Structured Interviews

Creswell (2009) suggested that in qualitative studies, the data collection methods are typically observations, interviews (individual or focus group), document reviews, and audio-visual materials. Interviews are commonly used by researchers to collect qualitative data (Merriam, 2009). An interview protocol was used to collect data that address the major research question. The interview questions for this study were designed to elicit in-depth responses from participants. Qualitative data consist of collecting responses from people about their opinions, experiences, feelings, and knowledge. An interview protocol facilitated dialogue and guided the data collection process. There were nine semi-structured interview questions and two to three probing follow-up questions. The duration of each interview lasted on average 30-45 minutes. The interview questions were not always asked in a specific order.

Maintaining a data collection timeline is a crucial part of the data analysis process. The entire data collection process took approximately 90-120 days.

Approximately 60 days before the scheduled interview, I identified participants, contacted them, and scheduled interviews with them on LinkedIn. I made initial contact via LinkedIn's messaging feature. The participants then received an introductory message inviting them to participate in the study. This message provided some background information on who I am, the purpose of the study, an invitation to participate, how their contribution would impact the study, and an outline of their participation rights, including confidentiality. I also requested a good backup email and phone number from participants upon contacting them on LinkedIn, if the information was not readily available. Once the participants agreed to participate, a consent form was then emailed to their preferred email address. A signed consent form was required before the interview could be conducted.

Data Analysis Process

I conducted the primary analysis for this paper. The analysis is guided by inductive analysis. The data were stored using the software tool HyperRESEARCH. HyperRESEARCH is a cross-platform software application for researchers conducting qualitative analysis. All the interviews were audio-recorded using Zoom.

I scheduled interviews at least 60 days in advance. I use Calendly, an automated scheduling software, to coordinate interview schedules. This cloud-based software allowed me to distribute a web link to participants. The link allowed participants to schedule an interview date and time that was convenient for them. The participants entered their name and email address in a field and selected a date and time from the

available options. Once a slot was selected, that date and time were removed from the list of options to prevent sessions from being double booked. Once a date and time slot were selected, I manually sent a confirmation email and calendar invite to participants' primary email and LinkedIn Inbox. As the administrator of the software, I received a notification indicating that a new interview has been scheduled. Once I received the notification, I manually sent a calendar invite that confirmed that date, time, and Zoom link via Outlook. A reminder for the scheduled interview was sent automatically one month, one week, the day before, and 15 minutes before the interview the day of the interview via Outlook.

For this study, the data were collected after Walden's Institutional Review Board approved the study (07-18-22-0527052). I conducted semi-structured interviews via Zoom. The interviews were captured using Zoom's recording software. The audio recording started once each participant was ready and agreed to start. I allowed the interview to progress organically by asking follow-up questions or the next question on the list that was relatable to the participant's most recent response. These questions were posed in no specific order; they were asked based on the dialogue. To ensure I captured the participants' answers correctly, I summarized what I heard them say and offered them an opportunity to clarify their answers.

I listened to each interview recording at least three times. All the interview recordings were transcribed verbatim into a word document. The word documents were saved on a secure thumb drive and a backup cloud that is password secure. The interview

data and the transcriptions were reviewed and compared with the recordings to ensure the accuracy of the data. The transcriptions were then organized by participant identification (ID). The ID was used for storage, ease of data retrieval, and reporting the findings. The ID consists of a combination of letters and numbers. For example, the first interviewee adopted an ID of P1. The second interviewee adopted an ID of P2 and so on. The ID number was assigned once the interview had concluded.

Within 24–72 hours of completing an interview, I downloaded the video and audio recordings from Zoom onto a flash drive and stored the flash drive in a locked safe. The electronic recordings and transcriptions are stored in a password-protected Dropbox folder. The files can be accessed and reviewed at any time. The recordings were stored electronically and will be destroyed after 5 years beyond the completion of this study. All electronic files will be deleted, including the backup files. The backup files are stored in a secure Cloud hosted by Microsoft and are password protected.

Development of Patterns, Relationships, and Themes

Qualitative research is based on how meaning is constructed. Qualitative researchers believe that knowledge is continuously constructed by people as they engage and make meaning of the experience or phenomena under study (Merriam, 2009). Per Saldaña's (2015) guiding principles, a four-step process was proposed in the analysis of the data. According to Saldaňa (2012), First Cycle methods are coding strategies that occur during the initial coding of data and are subdivided into subcategories.

The Second Cycle methods are coding strategies that require such analytic skills as classifying, prioritizing, synthesizing, conceptualizing, and theory building (Saldaña's, 2015). Two categories emerged: How soft skills are acquired, and how soft skills are developed. The categories were then coded using pattern coding. These pattern codes were then reviewed for temporary themes. According to Saldaňa (2012), what is most important is not how many works are coded but rather whether some form of saturation is reached.

Change in Data Analysis Process

Saldaňa's (2012) four step process proposed for the data analysis was not used to analyze the data collected. Instead, I used inductive analysis and searched the interview data for key concepts that answered the research questions. The Code, Participant ID and Transcript excerpt were outlined as shown in Table 1

Table 1

Code, Participant, and Excerpt from Transcript

Code	Participant ID	Transcript Excerpt
Career Advancement	7	A position had opened for a service manager, and I had the experience, but I just didn't move forward on it. I felt like I lacked a few leadership skills that I needed to be successful in the role. Regretfully I feel like I should have taken it just because it's running a team, I think that's going to be the best way for me to improve my leadership skills.
	1	They felt like I was too nice. They felt like I wasn't aggressive enough. I wasn’t confident in my ability to persuade someone. I wasn't strong enough and it's interesting because a lot of that has to do with being emotionally intelligent and me trying to avoid conflict.
	9	I would say there's one position where there was more so focused on leadership skills, and I didn't get that role because I wasn't in a leadership-type position at the time. I didn't have that experience in management, and they felt like I didn't have that experience.
	4	They were looking for individuals that have the skills to manage

Code	Participant ID	Transcript Excerpt
		complex projects which require you to have leadership skills.
Communication and critical thinking skill requirements	5	I did not get the role because I lacked multiple leadership skills. I think that growth can be best if you do if you do a package deal. It's important to develop all your soft skills because I think you need to enhance them.
	2	I think it started with my parents. When I first started school, I received a lot of homeschooling. The instruction from my parents helped to shape my communication skills.
Communication and critical thinking skill requirements	5	Yes. I agree! For instance, it's so good that after I say something you're going back and saying here's what I'm hearing. That's awesome and people don't often take the time to do that. Often the message is misinterpreted, and the audience walks away with the wrong message.
	2	Communication started with her upbringing. Specifically, her "parents.I think it started with my parents. When I first started school, I received a lot of homeschooling. The instruction from my parents helped to shape my communication skills.
	1	I think it starts with the individual being open to you. It pays more to

Code	Participant ID	Transcript Excerpt
		listen and digest, dissect, and articulate your stance.
	1	“Communication was paramount,” and elaborated, “I need IT professionals who can articulate their ideas and solutions
Acquisition of soft skills	2	I think it started with my parents. When I first started school, I received a lot of homeschooling. The instruction from my parents helped to shape my communication skills.
	6	I received a lot of advice from mentors.
	14	trial and error, experience
	4	on the other hand, learned soft skills while he was in the military.
Acquisition of soft skills	3	My parents and community also played a big part.
	14	Networking and through direct experience working with others.
Soft skills in the workplace	4	I am 99% sure that soft skills were not required at the time. Now of course that doesn't mean that they were not required. That doesn't mean that I could have done the job without having any soft skills. It just means that they were not listed in the job description.

Code	Participant ID	Transcript Excerpt
	2	The only required soft skills were time management and being "self-directed."
	6	Patience is required.

Further analysis was conducted by comparing the key concepts with the transcript data, conceptual framework, and the research questions, which resulted in two groups – soft skills acquired, and soft skills developed. The two groups were further analyzed by reviewing the raw interview data, resulting in two themes: Theme 1, The foundation of soft skills is shaped by family and the community. And Theme 2, soft skills requirements not listed in job description.

Data Analysis Findings

Because a basic qualitative design was used to complete the study, it was essential to ascertain the lived experiences of the IT professionals as their careers evolved in the field of IT. The primary research question for this study was: How do IT professionals learn/acquire soft skills? This question provided the basis for this study. Additional investigative questions allowed participants to expand on their thoughts. To protect the participant's anonymity, alphanumeric codes were used in place of their actual names.

Qualitative research is based on how meaning is constructed. Qualitative researchers believe that knowledge is continuously constructed by people as they engage and make meaning of the experience or phenomena under study (Merriam, 2009). I used

inductive analysis and searched the interview data for key concepts that answered the research questions. As a result of analysis, the two themes emerged. Theme 1 was the foundation of soft skills are shaped by family and the community. Theme 2 resulted in soft skills requirements not listed in the job description.

The first theme showed that IT professionals took a lifelong approach to developing and enhancing soft skills. After further analysis, data for theme 1 reflected that the foundation of soft skills is shaped by family and the community. And most jobs do not list soft skills on the job description, despite being required skills. The problem investigated through this study was that IT professionals do not participate in a formal learning experience for acquiring soft skills. Little is understood about how IT professionals describe and apply the soft skills that they consider necessary for their own employability (ManpowerGroup, 2018).

Therefore, the purpose of this study was to understand how IT professionals learn/acquire soft skills. Consequently, Manzoor (2012) argued that IT professionals often know little about what soft skills are required to secure and maintain employment in the digital age. While soft skills are a sought-after skill set, they cannot always be acquired easily. This might be due to the inability to identify or define soft skills. Professionals must understand which soft skills they need to remain employable in the digital age (ManpowerGroup, 2018).

Theme 1: The foundation of soft skills is shaped by family and the community.

Theme 1 provides a discussion of the participants' perceptions of how they obtained soft skills to apply in their IT work environment. The explanation of Theme 1 below includes the concepts of the participants' explanation of soft skills, how these soft skills were obtained, communication and advice from mentors. Application of soft skills in the workplace and past jobs is also discussed by participants are also included as key concepts that align with Theme 1.

To better understand how participants defined soft skills, I started each interview by asking them to describe soft skills in their own words. The first participant was a software engineer with 5 years of experience. P6 described soft skills as those skills that "help you interact with people. Skills that help you interact with people in your relationships and at work. Skills are not so easy to quantify but super useful. Some examples might include perseverance, adaptability, flexibility, and perseverance." I began to suspect that the foundation of soft skills was shaped by the participants parents and community. Below are the transcript excerpts that helped to shape this theme.

P4 response was slightly different. She described soft skills as "required skills."

> Skills I believe are required to interact to collaborate with people in a work setting or personal setting. Skills that identify someone else's feelings and emotions. And then responding to them accordingly. Emotional intelligence is imperative. A lot of people even at senior levels don't have that.

P9 listed critical thinking skills adaptability, project management, and “active listening” as important soft skills. While the remaining participants did not describe a clear definition, they provided examples of how familiar soft skills are used in the workplace in their current role. P7 described soft skills as “foundation skills. I don't know what that means it sounds like something that's going to be like you have your foundational skills and then you have I've just kind of skills built off that.”

P# elaborated on the need for training specific to foundation skills: “Take insurance for example. You get training on what insurance is. As well as the ins and outs of insurance compliance. But there is no course on how to interact with people and gain their trust in a situation.”

P#3 stated that “communication, general organization skills, and teamwork” were soft skills. While P#8 described soft skills as “skills that you learn through experience. The way you interact with others. The way you respond to a situation.” P#4 said, “The ability to communicate and get along with others.” While “social skills and empathy” were soft skills that came to mind for P#10.

P#2 aligned soft skills with training and education and provided the following examples:

> In terms of training, I'm thinking my soft skills training would involve things like customer service training. Maybe change management or similar. For example, I would say the technical side is more of the platform and facilitation. Or things that a robot can do. Soft skills are different.

Among the participants, there were several who held leadership positions. Their responses reflected their leadership positions. For example, when I asked P#11 to define the term soft skills, she defined it as “leadership quality skills. To me, soft skills are leadership quality learning skills. This includes professional development and time management. As well as customer service skills.”

P#1, who is also a leader, made a similar statement. P#1 described soft skills as “skills that allow you to be able to relate to another person. And analyze the situation.”

> In my role as a CEO, I try to find common interests when I meet someone or if I'm trying to do business with them. I also strive for a way we can relate to making the conversation a little easier. This requires emotional intelligence. I would say that emotional intelligence is one of the best skills that I learned to harness.

P#2 also alluded to “leadership development” as a soft skill, “For mid-management, people who are looking to be promoted or they're looking to do lateral moves. They may take on some leadership development training. They may also take on change management training.”

Once participants described soft skills, they shared those soft skills they would like to strengthen. I asked P#1 to share with me those soft skills he would like to improve.

> It would be my negotiation skills. For example, I'm good at opening a conversation. However, I allow someone else to close the deal. Also, being able to articulate the story about myself a little better because I don't do a good job of bragging about a good job I've done or of talking about myself. This comes from trying to be humble and not being arrogant. Some would call this emotional intelligence.

Both P#7 and P#2 restated that time management or the ability to "switch work off," is their greatest challenge. P#7 explained.

> It would be leadership. I am pretty good at laying down processes and making things that efficient but when it comes to handling each individual and everyone differently and understanding the best way to handle everyone is where I felt like I would come up short I'm not sure if that's just a lack of that emotional intelligence.

P#7 described his preferred communication style. I asked him whether he felt more comfortable delivering feedback to a group or delivering it to one person individually. "That's a very good question! I feel like it'd probably be a group because one-on-one feels a little bit more personal and there are a little bit more motions that are involved."

Participants were asked which soft skills they felt were most important for IT professionals to possess in the future. They could share which soft skills were in demand and would be needed to maintain future employment. P#2 felt that being "inquisitive and a solutions-oriented person" was important: "I think it takes thinking through a solution

from front to end and then being able to jump in the middle if you need to and know exactly where you are while paying attention to detail."

P#8 listed "communication, patience, and adaptability" as important while P#4 felt that public speaking was important. "Teach people to overcome their introversion long enough to speak in public," P#10 stated that in addition to social skills, communication, adaptability, and empathy were also important. P#3 felt that communication, time management, and social skills were important.

Communication was a common thread among the participants' answers. Participants, who were leaders, valued a different set of soft skills than those participants that held non-leadership roles. I rephrased the question and asked when hiring IT professionals what soft skills they felt most IT professionals needed to maintain future employment. P#1 stated that "communication was paramount," and elaborated,

> I need IT professionals who can articulate their ideas and solutions. When we do interviews like I don't bother with technical questions. I realize they can handle the technical piece. I ask them what they are working on and that'll tell me a whole lot!

He further explained.

> Software engineering is a contact sport. You can't just read you have to be hands-on. And be able to explain your efforts. Just that one question helps me to get an assessment of where this person is and how they would do if they were placed in a

> position to explain their results. I realize they can handle the technical part. It's their communication skills that I often evaluate.

I asked participants who played a vital role in shaping their soft skill development. P#7 gained his IT experience while working for automobile manufacturing companies but attributes learning soft skills to his spouse.

> First and foremost, where I really started to grow as a communicator is going to my wife. We met when we were young. She taught me how to communicate my emotions. Also, as a technician, as I started to grow, I started learning more. I had a team leader at my previous employer.

P#3 stated that their leaders were phenomenal and played a big role. P#3 was asked what made the leader so phenomenal and to elaborate on communicating his emotions.

> He was a phenomenal leader that taught me a lot about ownership. Taking ownership of your situations and how that can help with one-to-one interactions. When you take ownership of the situation it takes a lot of pressure off the individual whom you're speaking with. And it makes them less defensive.

P#6 felt that her mentors played. "I received a lot of advice from mentors. Communication to me is a lot about listening. I'm an introvert and fortunately, it's easy for me to be a listener. So, either if I'm talking to clients or mentors, or investors, I try to ask questions."

How Soft Skills Are Applied in the Workplace

Manzoor (2012) argues that despite soft skills being considered prime expertise, IT professionals often face a soft skills gap and a skills mismatch to digital age job demands. Manzoor further explained that IT professionals, regardless of their technical qualifications, struggled to secure jobs due to a lack of soft skills.

Participants were asked to share how they apply soft skills in their current roles. There was a mixture of responses. P#1 elaborated on his efforts.

> I acquired them from the jobs I had before I became an IT professional. Being able to start working from the bottom up, I was placed into situations where I would serve customers. Being able to communicate with customers and just being exposed to areas of growth and having someone above me put me in situations to get those skills. I have a large community and people that hold me accountable.

P#15 was asked to think about his current role and how he applies soft skills daily. The first soft skill he described was communication. He described the process of trying to flesh out what his clients are communicating by critically thinking. I needed to better understand his statement, so I asked him to provide an example.

> I deal with my team very much on a one-on-one basis. I would always look at communication through a technical lens because that's my job. Trying to find solutions. Technical solutions or problems that people bring to me. It is a large part of communication.

P#5 who has 6 years of experience in the field of IT, also shared how he applies soft skills in his daily role. He described his experience as a technical trainer and explained the importance of communication and good listening skills.

> Being able to control the audience requires soft skills. Being able to communicate with them effectively so that they have a clear understanding of what you're training.
>
> Sometimes this requires a lot of problem-solving because you have different learners with different knowledge bases. You must be able to adapt to every learner while you're training. You also must be a critical thinker when ensuring that you're reaching each audience member.

P#11 explained how they interact with her clients. They are a technical consultant and leader in education and professional development.

> Being able to open their learning potential put them at ease and has them open to change. This requires a change of management. I also must employ the skills to help people get acclimated to new ways of doing things.

P#2 shared her experience of applying soft skills during the weekly podcast she hosts. In addition to being a technical trainer, P#2 also invites guests to speak on their podcast platform. She explained how she utilizes soft skills to build rapport with her guests.

> My ability to build rapport with my potential guest when I have never met them. Being able to first get the interest and then develop somewhat of a relationship with them. Once we've established that it's just maintaining open communication with them from there.

P#9 was asked about her application of soft skills in the workplace. “I asked for feedback. I also engage with others on my team.” P#4 described her interaction with a workplace subordinate.

> An example that comes to mind is an interaction with a young lady. We were working on a project, and I noticed she was kind of aggressive. I invited her to a meeting to discuss the interaction. I called her name and then I clarified the purpose of the meeting. I also shared the expected outcome of the meeting. Whenever you recognize there's a conflict, use a person's name. I also believe clarifying the questions and the tone is most important. My dad always said you can catch more flies with honey than with vinegar. It’s important to stay in a professional lane, identify them by name and state the objective for the meeting. It turned out that my colleague had a previous experience with another project manager and that relationship was rough, so she built a defense when she interacts with someone new to leadership.

Previous Work Experience

The participants’ professional backgrounds were important to the findings. Fifteen of the participants were software engineers, two were training consultants, and

three held leadership titles. Three of the participants were active military or veterans. All the participants were actively working in the IT field.

Participants' roles were considered and included in the findings. P#3 is a software engineer with 9 years of experience in the field of IT. He acquired his first role by "networking and through direct experience working with others." Three participants had experience in IT while in the miliary. Their experiences ranged from 15–30 years. P#4, with 15 years in the field of IT, transitioned from "the service to civilian life."

P#6 shared a different experience. She started as a student participant in an alternative university founded by students where participants are encouraged to "create their own learning journey." P#9 had 6 years of experience in IT and acquired her first IT role while working in a different position with the same company. "I was working in the hospital in a lower-level room, and we acquired a new software system. I was tapped for the role because I knew computers very well and so I attended the training and learned the system."

With more than 20 years of experience in IT, P#11 had no previous IT experience and had recently transitioned from the Air Force and was working as a "general manager in sales for a large furniture company." She posted her resume on the internet and without directly applying was invited to apply for an open IT role.

P#2 has 15 years in the field of IT as a technical trainer and hosts a daily podcast. She stated that she acquired her first IT role from "a friend." The only required soft skills were time management and being.

> self-directed. I needed to be self-directed. And being able to absorb information rapidly. Being able to manage time was also important. I was only given a certain amount of time to learn the material before we had to teach it.

P#2 described her learning experience differently.

> My father was a laborer and a hard worker. I saw him go to work every day and he wasn't as educated as his brothers and sisters. Because he was the oldest, he had to leave school early to help take care of the animals and the farm. Even though he wasn't that educated, he was a hard worker, he would spend years at the same job because he was committed to that job, and he was dedicated to that job. I learned my work ethic from him.

P#4 described her "heroes" contributions to her development. "My heroes are my mother, my father, and my grandmother all of whom were teachers, principals, and counselors. The legacy of women that were strong leaders in corporate settings. Those were my first teachers."

Participants were asked whether the soft skills used in their current roles aligned with the job requirements listed in the job description or presented in some form as a requirement to obtain the role. Knowing about the needed soft skills could close or reduce the gap between job expectations and hiring skilled IT professionals. The participants' professional backgrounds were important to the findings

Theme 2: Soft Skill Requirements Not Listed in Job Description

The key concepts in Theme 2 emerged as soft skill requirements that were not listed in the job description of IT professionals. The participant interview data showed that soft skills in daily function of job, and skills that the IT professionals needed to learn were relevant to their job function. These skills included: conflict resolution, communication, critical thinking, listening, and leadership skills. Participants mentioned that they needed to become self-directed learners to gain soft skills to effective serve in their IT professional role in the workplace.

During the interviews I began to suspect that soft skills were often not listed in the technical job description, despite soft skills being utilized daily to fulfill daily job functions. Below are the transcripts excerpts that helped to shape this theme.

P#6 expressed that "patience is required."

> I think as a learner in any type of learning situation where you're not you know super familiar with the field you need patience. You must be willing to step into the unknown and get comfortable with not knowing and with being a beginner. This means having patience. You must also have perseverance and resilience because all learning processes have a learning curve. So, I would say patience is required for this role.

Participants identified and described soft skills and were asked how they learned the soft skills they apply in their current job. P#14 listed "trial and error, experience, observation, and networking as he was of learning soft skills." P#4, on the other hand,

learned soft skills while he was in the military. P#8 stated that his upbringing and recreational activities helped him. “My parents and community also played a big part.” P#6 described how she liked to learn soft skills.

> I put myself into situations where I must grow and expand my horizons. It helps when I place myself in situations. I'm not fully equipped to handle the situation. I learned the most when practicing real-life situations. I can easily grasp a concept, but it’s not until I experience it that I learn.

P# described instances where she practiced learning conflict resolution and felt this was used daily but not listed in the job description. Her method for strengthening this soft skill was to “avoid conflicts” and wait until tension cooled to readdress the situation. “I avoid emotional tension. It overwhelms me.”

How IT Professionals Can Benefit

IT workers stand to benefit from the findings of this study. The findings can be used to help with mapping IT workers’ learning paths for acquiring soft skills. This study will also contribute to the advancement of career and education development by emphasizing the need for a lifelong approach to developing soft skills, professionals’ perspectives of their soft skills, and how they apply their soft skills for employability. The purpose of this study is to better understand how IT professionals learn/ acquire soft skills. Little is understood about how IT professionals not only learn but also develop soft skills. To better understand how IT professionals develop soft skills, the next series of questions focuses on the participant’s past learning experiences and current development

process. According to Gallup's 2013 21st Century Skills and the Workplace Survey, most respondents (59 percent) agreed that they developed most of the skills they have used in their current job outside of school. The study also revealed that four in 10 corporations and almost half of the academic institutions believe that recent graduates lack certain so-called "soft skills" needed in the workforce to be successful, including emotional intelligence, complex reasoning, and negotiation (Microsoft Partners in Learning et al., 2013).

Communication and Critical Thinking Skills

Communication and critical thinking skills are crucial in IT positions where people work across teams leading digitization (Ghouse et al., 2018). This is because many IT positions are siloed where individuals work independently, remotely, or in office cubicles. This means fewer interactions with humans and greater interaction with technology. This response requires collaboration skills which are an important soft skill possessed by IT professionals (Ghouse et al., 2018). In a 2019 report, the Society for Human Resource Management found that 51 percent of its members who responded to a survey said that education systems have done little or nothing to help address the soft skills shortage. The report begins the exploration of the skills gap. According to the report, the top missing soft skills, according to these members are problem-solving, critical thinking, innovation, and creativity; the ability to deal with complexity and ambiguity; and communication (Society for Human Resource Management, 2019). IT workers need communication, critical thinking, and collaboration skills to function in

their roles. Research suggests that traits like creative problem-solving and emotional intelligence will empower future generations to thrive in the digital age (Lee et al., 2019).

Participants described how they apply communication and critical thinking in their current roles.

P#1 elaborated on the importance of listening.

> I think it starts with the individual being open to you. It pays more to listen and digest, dissect, and articulate your stance. You want to be open to all perspectives, not just your own, and be willing to compromise. And being able to respect all perspectives, I think is where we lose. Partially from your parents and partially from the communities and the church were responsible for my soft skill experience.

For P#2, communication started with her upbringing. Specifically, her "parents."

> I think it started with my parents. When I first started school, I received a lot of homeschooling. The instruction from my parents helped to shape my communication skills.

P#15 explained how he is also an introvert and does not like speaking in front of large groups. "I love speaking to a group of people but I'm not big on one-on-one conversations necessarily, so when it comes to communication, I choose e-mail very frequently over the phone call."

P#5 is a technical trainer who trains new hires in technical systems and software. P#5 feels that it's important that he "speak clearly when giving guidance." P#5 elaborated, "The goal for me is to identify different ways to enhance their learning experience." P#11

described her experience as a technical instructional designer.

> When we develop training, we really must look at people's learning styles. And, when we evaluate the client's needs. First, we must make those assessments. What is the actual need here? How does it need to be approached? A lot of critical thinking comes into play. Also, when it comes to instructional design, there are language barriers. Instructional designers speak a different language than the people they write for. Communication is always this if you never stop working on that because people are evolving in the way they hear things.

I explained the importance of listening without speaking. I suggested that only when we try to hear people can the process of understanding them take shape. P#11 agreed,

> Yes. I agree! For instance, it's so good that after I say something you're going back and saying here's what I'm hearing. That's awesome and people don't often take the time to do that. Often the message is misinterpreted, and the audience walks away with the wrong message.

Leslie (2015) suggested that IT professionals are not adequately prepared with the needed soft skills for participating in the digital age workforce. In today's workplace,

technical skills are not enough for workers to compete in a rapidly changing workplace environment (Dean & East, 2019). The findings can be used to help with mapping IT workers' learning paths for acquiring soft skills. This study will also contribute to the advancement of career and education development by emphasizing the need for a lifelong approach to developing soft skills, professionals' perspectives of their soft skills, and how they apply their soft skills for employability. I asked the participants to describe a time when they wanted to apply for an IT position or role but did not meet the minimum soft skills requirement(s) and to list the soft skills they needed but did not possess at the time.

P#15 could not describe a specific instance but referenced a time when he did not get a role and was not given a reason.

> It has been nice to have you know patience compassion in that role humility those are kind of more attitudes than skills necessarily and I say if I had more of that I would have been more successful in that role. I think most IT people kind of feel that uneasiness, but they would never address it they would never raise it as a problem I think like that I keep people will never ask for a class to help with their social interactions or something like that. I think if you put this theory in front of them. Perhaps theories around communication or behavior or stuff like that, sooner or later they will do something with that, but they will never come to you or their manager and say, "hey I need a classic conflict resolution course."

Career Advancement

P#1 describes an instance where he was not selected for a role because he was not a “good leader,”

> They felt like I was too nice. They felt like I wasn't aggressive enough. I wasn’t confident in my ability to persuade someone. I wasn't strong enough and it's interesting because a lot of that has to do with being emotionally intelligent and me trying to avoid conflict.

P#7 described his experience and reason for not being selected for a role.

> A position had opened for a service manager, and I had the experience, but I just didn't move forward on it. I felt like I lacked a few leadership skills that I needed to be successful in the role. Regretfully I feel like I should have taken it just because it's running a team, I think that's going to be the best way for me to improve my leadership skills.

P#9 described her experience. “I didn't have leadership soft skills at the time.”

P#5 said something similar.

> I would say there's one position where there was more so focused on leadership skills, and I didn't get that role because I wasn't in a leadership-type position at the time. I didn't have that experience in management, and they felt like I didn't have that experience.

P#4 also felt that a lack of leadership was her reason for not getting the role.

> They were looking for individuals that have the skills to manage complex projects which require you to have leadership skills.

I then asked the participants to share what additional soft skills training they felt would improve their performance to gain future employment or career advancement. P#2 prided herself on being a "self-directed" learner: "I like observing. You know it's interesting because you still learn from observation practices you learn from the mistakes and might decide to take a different route based on your result."

P#6 said she would like to be better at "closing."

> I need to become better at closing. I'm super good at presenting the product. I have the passion and the enthusiasm to bring people to the conversation but then at the end of the conversation not super comfortable with closing.

P#5 felt like soft skill training should be approached as a "package deal."

> I did not get the role because I lacked multiple leadership skills. I think that growth can be best if you do if you do a package deal. It's important to develop all your soft skills because I think you need to enhance them.

It became evident to me that leadership skills are a driver of career advancement. And that while leadership was not listed as a required soft skill, the lack of leadership skills impeded their ability to advance in the workplace.

People will commit to a path of lifelong learning as means of remaining employable in today's digital age. However, this is not the case for all professionals. This

basic qualitative study addressed the problem of information technology professionals not participating in formal learning experiences for acquiring soft skills. The problem to be investigated through this study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Given this, I wanted to better understand more about the participant's preferred method for learning and acquiring soft skills. I asked the participants to describe any formal training or education they have received on soft skills and if they had an opportunity to develop the needed soft skills, where would they seek to acquire them. This would help me to better understand how IT professionals prefer to learn soft skills. Particularly their preferred learning style and environment. P#1 stated that he had no formal training in soft skills. P#19, P#20, P#17, P#8, P#14, P#15, P#3 & P#6, all had no formal training. P#2 also explained that she had "no formal training. Probably going to find out and explore how other people do it. Maybe observing other people and how they do it. Or I might take a class on time management."

P#6 explained that she also preferred self-directed learning,

> I like creating the process, the learning process that makes the most sense to you as a learner because some methods work better for you than for other people there are some environments. I think practice is the most important way I acquire soft skills. I prefer to put myself in situations where I have to grow and expand my horizons. It helps like first oh getting into situations that I'm not fully equipped to handle but, those situations made me stretch and learn more about myself. I learned most during practice like doing real-life situations. I can you know listen

> to a podcast and get familiar with the concept but unless I apply that in a real-life situation, it doesn't stick with me.

P#6 then describes a training program she participated in,

> The project was self-directed. You were assigned a counselor that would help you become a self-directed learner. You set your own learning objectives, choose the classes, and selected an environment that made more sense to you as a learner. The whole experience there was gamified. We were you know part of a house like in Harry Potter and we had all sorts of challenges to complete during the year and I fell in love with the concept I realized uh it helped and like empowered learning a lot.

P#9 stated, “My first resource is to go to Google depending on what it is.” P#3, P#20, and P#19 stated that they would look for an online class that was “self-paced.” P#11 also preferred an online class. “I would take online classes. I would take classes online. I prefer self-directed learning.”

Please add a paragraph here that provides an overview of the data analysis and how this theme addresses the research questions.

P#4, who had more than 6 years of experience in the field of IT, acquired her role by networking. She identified organization as the required skill in the IT role. P#5 said, “adaptability, communication, and creative thinking” are utilized. P#12, who has more than 25 years in IT and is a current leader, could not identify any soft skills that were

required for the role. He indicated that if soft skills were required, he was not aware of them, or they were not listed in the job description.

> I am 99% sure that soft skills were not required at the time. Now of course that doesn't mean that they were not required. That doesn't mean that I could have done the job without having any soft skills. It just means that they were not listed in the job description.

I concluded that soft skills were often not listed in the technical job description, despite soft skills being utilized daily to fulfill daily job functions.

Limitations of the Findings

According to Moser et al. (2018), qualitative sampling consists of participant samples that are small and produce in-depth descriptions. Twenty IT professional participants were interviewed. Therefore, the limitation of these findings are as follows:

1. There is a possibility that IT professionals working across related industries could have different perceptions.
2. Industry-specific professional development training and support for gaining soft skills may or may not be available to these participants.
3. This study is limited in scope; it was not possible to study all the underlining issues that could prevent IT professionals from learning and acquiring soft skills. Thus, future studies could explore these topics in detail.

4. Furthermore, the findings of this study are limited because of the interview data collected and coded. A further limitation was a revised data analysis plan. The original plan proposed a 4-cycle coding process. The actual data analysis followed an inductive analysis in which I searched interview data for key concepts that answered the research questions. Since the data drives the analysis, the themes are restricted by transcript evidence.

Trustworthiness

For this study, the data were collected after Walden's Institutional Review Board approved the study (07-18-22-0527052). Similarly, confidentiality is a critical consideration in all research. The processes developed by the researcher must protect the participants (Creswell, 2014). As a current senior instructional designer with more than 10 years of experience, I have evaluated numerous education programs. I have also developed and delivered training courses and curricula for adult professionals. In my experience, a common thread in discussions among executive leadership is the need for more soft-skill training for IT professionals. I have designed and written courses and workshops for IT professionals on soft skill topics such as communication and emotional intelligence. Many of the organizations I have supported throughout my career have large IT-consulting firms. My role has been to help organizations restructure the way they do business by developing workforce talent.

To ensure I captured the participants' answers accurately, I offered a recap of their responses. The participants appreciated this action because it validated my commitment

to actively listening to each response. I ensured the credibility of the data by approaching discrepant cases as indicated by Ravitch and Carl (2019). I then identified discrepancies in the data by looking for emergent themes throughout the participant interview notes. There were no discrepant data identified in my review. Individual opinions that appeared to be divergent from other participant responses were also examined. The next section offers a discussion of the analysis.

Summary of the Outcomes

Unable to Identify or Describe Soft Skills

Adopters of soft skills should be able to describe and apply the soft skills that they frequently use in their job and identify the soft skills they are expected to have to perform in their roles in the digital age. Soft skills should be modeled over time by different stakeholders (SEMCOG, 2012). To better understand how participants identify and describe soft skills, I asked each participant to describe in their own words what soft skills were and to provide an example. While all the participants could describe the benefits of soft skills, only two listed specific soft skills and explained how they apply them in the workplace. The others were able to share examples of how soft skills were applied in the workplace. Several participants were not aware that they were using soft skills when executing a task on the job. For example, some participants were able to describe the soft skills they utilized when executing problems while others described the soft skills, they utilized to overcome challenges. Despite acknowledging that they overcame the challenges, they failed to attribute the success to the strength of their soft skills. Despite not being able to list a specific soft skill, all the participants demonstrated

evidence of understanding what soft skills are. When I asked the participants what soft skills were required for the job, the majority stated that no soft skills were required. The responses were attributed to a deficiency in a particular soft skill. It became apparent to me that because soft skills were not listed as a job requirement in the description, the participants did not acknowledge their importance when competing for a job.

There were many instances during the interviews when a participant would provide a scenario where they were confident and were utilizing soft skills but were unsure which soft skills they were using. The lack of understanding and familiarity could potentially hinder their career advancement and professional development. Many of the participants struggled with closing a deal. When their struggles were closely examined, it was communication and emotional intelligence that they struggled with. This led me to conclude that people may struggle with identifying and describing soft skills. Not being unable to identify or describe the soft skills they need to improve could impede their ability to improve in that area.

The Foundation of Soft Skills Is Shaped by Family and the Community

I needed to better understand how the participants acquired the soft skills they possessed before entering the professional space as an adult. I asked the participants who played a key role in helping them acquire and develop the soft skills they currently use in their work as IT professionals. Almost all the participants attributed the fostering and developing of their current soft skills to their parents and the community, such as the school or church. In most instances, the participants developed soft skills utilizing

enforcement. The soft skills considered most valuable were determined by their parents and community. Once the participants entered the workplace, the decision about which soft skills should be developed or improved is often left up to the employer. In many instances, a formalized development path for developing specific soft skills is not offered. Many programs related to soft skills development are facilitated by workforce development (SEMCOG, 2012). Because soft-skill development is not innate and requires instruction, parents also play an important role in the educational development of their children.

Once I began to understand the origin of the participant's soft skill development and how they currently go about acquiring and developing new soft skills, I needed to better understand more about their formal soft skill training and what that experience was like. Some examples might include corporate training events or certifications they completed voluntarily. Despite there not being a formalized training path for acquiring soft skills, all the participants identified a way to acquire and develop the needed soft skills. Most of the participants' methods for soft skill development were self-prescribed and self-directed. The lack of a formalized development path could impede their ability to acquire or develop soft skills.

Lifelong Learning Skills

Given that there is no formalized path to develop soft skills, I wanted to better understand if the participants had an opportunity to develop a soft skill, and what would those soft skills be. I was also interested in how they would acquire and develop the soft

skills once they were able to identify and describe the ones they would like to improve. Many of the participants described themselves as introverts who preferred self-directed learning in an environment of their choice. Many of the participants also struggled with one-one conversations or discussions that invoked too much emotion or required emotional intelligence. All of the participants agreed that soft skills were imperative for future career advancement and that the development of soft skills would be a lifelong process.

I wanted to understand more about those soft skills that were particularly important to IT professionals. Each of the participants describe different soft skills they wanted to improve. Many listed more than one soft skill. What the participants did have in common was their motivation to advance in the workplace. I wanted to understand more about the participant's success in the role once they were given the job. I asked the participants to provide examples of the soft skills they need to be successful in their roles. Some of the participants described instances when they excelled at a technical job in which they had strong technical skills. However, when a leadership position became available and they applied, they did not get the job because they did not have leadership experience. To better understand if other soft skills may have played a factor in the hiring decision, I asked the participants to provide some examples of skills they felt may have changed the outcome of the hiring decision if they had had them. Many of the participants indicated that communication and the ability to delegate are where they felt they struggled most. Several of the participants indicated that they had the book knowledge but, no practical, hands-on experience.

When asked about jobs and the type of opportunities they were not offered and the skills required, most of the participants indicated that a lack of leadership skills was the reason they did not get the job. The participant acknowledged that leadership was a soft skill they did not have at the time and was not required to acquire the job. It was evident to me that the participants were describing career advancement opportunities. This is because many of the participants had already stated they acquired their first role through networking and their first IT jobs did not require any soft skills. The lost opportunities the participants were referring to were promotional opportunities to become leaders. It appears that while soft skills may not be required for a worker to get hired, soft skills do become a requirement when that worker wants to advance their career. It became apparent that people will commit to a path of lifelong learning as means of remaining employable.

Project Deliverable

Professional development programs that foster soft skills must rethink their approach and pivot to accommodate future generations. The goal should be to better understand the essential qualities needed to have a successful career path. This does not only apply to IT workers but to professionals in general. People will commit to a path of lifelong learning as means of remaining employable in today's digital age. However, this is not the case for all professionals. Often the workplace relies on formal education to foster soft skill development. Lee et al. (2019) argued that the exponential pace of technological advancement will make traditional higher education obsolete and replace it with lifelong microlearning and upskilling models. With its emphasis on critical thinking,

debating, viewing issues from several angles, and communicating clearly, the classic four-year college education was designed to teach these skills (Lee et al., 2019).

The project deliverable for this study is a policy recommendation paper that supports the Talent Task Force, created by SEMCOG and the Metropolitan Affairs Coalition, which has developed a lifelong learning soft skills framework (SEMCOG, 2012). In the 21st century, there is a need for a lifelong approach to developing and enhancing soft skills. The development of these skills will ensure that adequate workforce resources are available and employable (SEMCOG, 2012). This framework relates to the approach of the study because it promotes the need for a lifelong learning approach to developing and enhancing soft skills. It is a plan that identifies basic skills for workplace success and documents some of the efforts to teach, reinforce, model, and assess these skills by eight stakeholder groups (SEMCOG, 2012).

The individuals who participated in this study emphasized their need for interactive, hands-on, self-directed soft skills training. By 2025 many familiar jobs will be performed by machines. Machines will be doing basic tasks that require abilities such as operational skills (functioning as forklift operators, and assembly line workers), administrative skills (secretaries, and bank tellers), and computational skills (accountants) (SEMCOG, 2012). However, despite being highly qualified and receiving adequate training in universities and colleges, many outgoing professionals remain unemployable. One of the principal reasons is that the current academic system gives more priority to

teaching technical skills than imparting soft skills and behavioral attributes to students (Stingl, 2019).

The policy paper includes recommendations for raising awareness of links between soft skills and success in the workplace as well as ways to advocate for strengthening and integrating soft skills curriculum and funding. The study participants deemed knowledge of soft skills and leadership development training as essential for their work. As industries shift to more advanced, automated processes, employers will need additional workers with IT skills to drive transformation. Twenty years ago, consumers primarily interacted with human workers (SEMCOG, 2012). Today, AI is increasingly replacing those workers, leaving IT professionals to service the machines. IT professionals need communication and collaboration skills to function in their roles; both communication and collaboration are soft skills and descriptors of emotional intelligence (SEMCOG, 2012).

The lifelong learning soft skills framework addresses many of the challenges faced by employers in raising awareness surrounding soft skills. There is a plethora of soft skills categories that are fostered by workforce development professionals (SEMCOG, 2012). The challenge is that many of the categories focus on a specific audience, which limits their applicability. The framework also outlines a matrix that identifies a cluster of soft skills and a mix of stakeholder groups. The skills are divided into categories: life skills, including problem-solving, teamwork, time management, conflict resolution, and financial literacy; personal traits, including ethics, initiative,

judgment, positive attitude, and self-confidence; and, finally, academic-learned skills, including basic digital literacy, reading, writing, and arithmetic. According to SEMCOG (2012), the matrix outlines the soft skills and partnering groups that shape the framework. Additionally, the matrix highlights the most appropriate stakeholder role(s). One of the goals of the framework is to ensure that adequate workforce resources and qualified human capital are available to the IT industry (SEMCOG, 2012). The framework is described in detail in section 3.

Summary

In Section 2, I outlined the methods that I employed for collecting, analyzing, and interpreting the collected data. In addition, data collection instruments and the data analysis approaches were described. Section 3 introduces a description of the project deliverable(s) based on the data findings and interpretations.

Section 3: The Project

To create social change in IT workplace settings, a policy recommendation paper (Appendix A) will be presented to stakeholders in four corporate learning and development settings. The paper advocates for efforts to teach, reinforce, model, and assess soft skills. Stakeholders include Human Resources, Training departments, and IT Managers. The goal of the study is better to understand how IT professionals learn and acquire soft skills. The goal of this research study was to raise awareness on the importance of soft skills and build support and commitment from stakeholders. This does not prescribe specific actions or require changes to processes or priorities but encourages participation in discussions and programs that result in a better-prepared and skilled workforce. This policy recommendation paper emphasizes the need for a lifelong approach to developing and enhancing soft skills because many of these skills are built incrementally and need to be refreshed over time to reflect career and education changes (SEMCOG, 2012). The current lack of coordination among stakeholders has led to a fragmented approach that diminishes reinforcement and consolidation of skills. This results in higher staff turnover, reduced productivity, and lower customer satisfaction (SEMCOG, 2012). The issue of soft skills development has been a particular challenge for employers and can lead to worker shortages due to a lack of qualified workers. Lack of soft skills also has a significantly negative impact on an individual's ability to improve their situation. For example, a person might be interested in a position that would require additional skill sets. Absent these skills, the individual might not be qualified to acquire the position. Without basic soft skills, they cannot pursue training or education that is

increasingly necessary even for entry-level jobs (SEMCOG, 2012). Unlike technical skills, it is difficult to measure or evaluate success in soft skills, although it is clear when they are lacking.

The Lifelong Learning Challenge (LLC) is the name of the project and the result of this study. It aims to raise public awareness of the importance of soft skills and emphasize soft skills in the workplace and the importance of aligning employability and life success. The policy recommendation targets IT professionals, regardless of their position on the organizational chart and without regard to their experience levels. Soft skills are embedded into all the training and aim to create a training path that provides skills participants can use immediately, by mobilizing stakeholders and encouraging them to create a new generation of IT professionals that are career-ready to compete successfully in the 21st century. Essentialities include flexibility in applying workplace knowledge and skills, problem-solving, critical thinking, teamwork, conflict resolution, creativity, and innovation. It focuses on nurturing skills such as emotional intelligence, empathy, communication, and global awareness.

Based on the results of this study which focuses on IT professionals in the workplace, it is recommended that stakeholders adopt the proposed policy recommendations. Reaffirming the framework of lifelong learning constitutes an indispensable foundation for adult learners to identify and acquire the soft skills they need to maintain employment and advance in their careers. The highest quality research can have a hugely beneficial impact on society. It can improve economic performance

and enhance the quality of life. Based on the participants' responses during the interviews, a policy recommendation paper emerged as the final project.

Rationale

The policy recommendation paper was the appropriate genre for this study because it provided a path to advocate on behalf of IT professionals and adult learners who enter the workplace without the benefit of training or advanced education in soft skills. It was selected because a policy recommendation could help to facilitate the mobilization of stakeholders. Based on the data collected, it became evident to me that soft skill development is a collaborative effort that is implemented incrementally over time. Given that there are several ways that stakeholders can support the upskilling of IT professionals, a policy recommendation paper is the best genre for this project. The problem to be investigated through this study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Little is understood about how IT professionals describe and apply the soft skills that they consider necessary for their employability (ManpowerGroup, 2018). The policy recommendations could close or reduce the gap between job expectations and hiring skilled IT professionals.

In the 20th century, the most valuable assets to job creators were financial and material capital. In a changing global economy, that is no longer the case. In the 21st century, talent will continue to surpass other resources as the driver of economic growth. The need for soft skill training has increased as the field of adult education has been propelled further into the digital age (Cross et al., 2016). For example, the demand for

soft skills, such as interpersonal skills, has increased in the workplace (Schirf & Serapiglia, 2017). Soft skills provide workers with the ability to respond to new opportunities. People may be hired for their technical skills but retaining their positions is dependent on their ability to leverage their soft skills through effective communication, teamwork, and understanding of basic rules. The labor market demands new methods focused on developing interdisciplinary competence and soft skills (Liventsova et al., 2018). Businesses will increase their dependence on IT professionals in the future. IT leaders of the digital age must understand how today's organizations will change due to digital transformation (Ahlemann, 2016). The digitization of the economy has also changed hiring, management, and training practices making soft skill development even more prevalent. Twenty-first-century professions require workers with digital skills and advanced soft skills (Liventsova et al., 2018).

According to the Harvard Business Review, soft skills such as teamwork are one of the keys to the success of an organization (Cross et al., 2016). In a recent survey that targeted millennials from several countries, many of the respondents indicated that they were expecting to leave their places of employment because they were unhappy with how their soft skills were being developed (Deloitte, 2019). For Meeker (2019), COVID-19 has transformed modern lives in ways society is only beginning to understand. This includes everything from telecommunications to applying automation and artificial intelligence (AI) to everyday services (Meeker, 2019). The findings of the study may provide information to assist the local study site regarding professional development programs that may be needed for IT professionals. The findings may also be used to

support professional practice by aiding the development of training programs that focus on developing soft skills and possibly develop programs that ease adults into restarting their careers while recognizing the need to provide basic learning skills before embarking on career-specific training.

Review of the Literature

I searched multiple databases to locate peer-reviewed articles, including Google Scholar, Academic Search Complete, SAGE Journals, PsycINFO, PsycARTICLES, SocINDEX, ERIC, ProQuest, SAGE Journals, and Education Source. I searched for articles and studies published between 2017–2021. Multiple combinations of the following keywords were used to locate relevant research: soft skills gaps, professional development, information technology, adult learning theories, and the 21st-century workforce. To ensure that current research was located, citation chaining on Google Scholar was completed to find the most relevant articles. In the following subsection, I have highlighted current research regarding social learning, and the three core concepts that make up social learning theory are explained. Additional topics addressed consist of learning models, which include behavioral and observational learning, as well as Goleman's performance-based model of emotional intelligence, which assesses workers' levels of emotional intelligence.

Project Genre

The policy recommendation paper was the appropriate genre for this study because it provided a path to advocate on behalf of IT professionals and adult learners

who enter the workplace without the benefit of training or advanced education in soft skills. Policy recommendation papers offer perspectives and solutions to a problem (Zhao, 2013). The purpose of the recommendation paper is to describe an issue or problem in the context of data analysis and link it to recommendations for addressing the said problem (Zhao, 2013). A policy paper aims to reach a particular audience. In this instance, the policy recommendation paper is aimed at stakeholders in education, workforce development, employers, parents, and the community with the intent of promoting incremental growth or reinforcement of skills by increased coordination between stakeholders.

Machine Learning

Professional development programs that foster soft skills are rethinking their approach. The pivot is late in its efforts to understand the essential qualities needed to have a successful career path. This does not only apply to IT workers but adult professionals in general. Essential qualities for a successful employee to possess include soft skills as well as connecting complex ideas (ManpowerGroup, 2018). For example, interpersonal skills are vital and are a critical part of an individual's personality (Khasanzyanova, 2017). Many programs related to soft skills devel are facilitated by workforce development (SEMCOG, 2012). Since soft-skill development is not innate and requires instruction, parents also play an important role in the educational development of their children.

Soft skills are not always learned in a traditional education setting. Education is the most fundamental resource a nation can offer to its citizens. Modern society has become a network society that runs based on knowledge and information (Stingl, 2019). By 2025 many familiar jobs will be performed by machines. Machines will be doing basic tasks that require abilities such as operational skills (functioning as forklift operators, and assembly line workers), administrative skills (secretaries, and bank tellers), and computational skills (accountants) [SEMCOG], 2012). However, despite being highly qualified and receiving adequate training in universities and colleges, many outgoing professionals remain unemployable. One of the principal reasons is that the current academic system gives more priority to teaching technical skills than imparting soft skills and behavioral attributes to students (Stingl, 2019).

Social Learning Theory

There are four core concepts at the heart of social learning theory including differential reinforcement, vicarious learning, cognitive processes, and reciprocal determinism (Bandura, 1986). Reciprocal determinism describes the associations between behavior, environmental and personal factors, each affected by the other two factors (Bandura, 1986). Cognitive processes include encoding, organizing, and retrieving information (Bandura, 1986). Differential reinforcement occurs when a behavior results in positive or negative consequences received from the environment or the self (Bandura, 1986). Vicarious learning occurs through observation of others' behaviors, attitudes, and outcomes of the behavior (Bandura, 1986). Social learning theory proposes that individuals learn by observing the behaviors of other models (Bandura, 1986). These

individuals then evaluate the effect of those behaviors by observing the positive and negative consequences that follow. Social examples of social learning environments include internships attended by young adults. Young adults or interns observe the behaviors of IT professionals.

Social learning theories emphasize the importance of the social context. For example, Bandura (1986) suggested that young adults' aggressive actions are a result of what they witness in contrived social settings. Thus, aggressive behavior is thought to occur because it has been either observed or reinforced over time. Social learning theories suggest that people learn to exhibit behaviors because they observe others' behaviors and can see how these behaviors are reinforced over time (Bandura, 1986).

Observation Learning

Observational learning describes the process of learning by watching others, retaining the information, and then later replicating the behaviors that were observed (Bandura, 1986). Bandura (1986) identified three basic types of observational learning: a live model, which involves an actual individual demonstrating or acting out behavior; a symbolic model, which involves real or fictional characters displaying behaviors in books, films, television programs, or online media; and a verbal instructional model, which involves descriptions and explanations of behavior. Several learning theories emphasize how direct experience, reinforcement, or punishment can lead to learning (Bandura, 1986).

There are four processes in observational learning: (1) attention; (2) retention; (3) reproduction; and (4) modification. Multiple stages of observational learning need to occur for meaningful learning to take place. If the observer can focus on the model's behavior, then the next step is the ability to recall what was observed. For an observer to learn, they must possess a mindset that is open to new ways of perceiving the world and behaving (Bandura, 1986). The next stage in observational learning is attempting to replicate the observed behavior. Engagement in new behavior requires motivation. Even if the observer can imitate the observed model, if they lack internal motivation, then chances are they will not follow through with the newly learned behavior (Bandura, 1986).

Emotional Intelligence (EI)

Emotional intelligence is defined as an individual's ability to identify and manage feelings and use the information learned to adjust future behavior (Goleman, 1995). Emotions circumscribe the traits that define an individual's soft skills (Goleman, 1995). Goleman developed a performance-based model of emotional intelligence to assess employee levels of emotional intelligence as well as identify areas for improvement. The model consists of five components: self-regulation, self-awareness, internal motivation, social skills, and empathy (Goleman,1995). According to Goleman (1995), social awareness, relationship management, self-management, and self-awareness are descriptors of soft skills. Soft skills consist of a blend of people and interpersonal skills. According to the Asian Society Center of Global Education (ASCGE), there are multiple soft skills needed for an individual to become adaptable as an adult (Isa, 2018). These

soft skills include leadership, collaboration, and good communication skills (Isa, 2018). Skills such as collaboration and creativity will be integral to success.

There is value in nurturing soft skills among adult learners. Soft skills help with building social capital, which is driven by career development (Ghaffar et al., 2018). Social capital is composed of contacts and memberships in networks that can be used for personal gain (e.g., Cabrera et al., 2006; Perna & Titus, 2005). Soft skills are personal attributes that enhance an adult's interactions, as well as their job performance (Parsons, 2008). Soft skills, like all skills, will not come naturally at the professional level. They require constant updating and evaluation to hone (Dr. M. Pita, Sr. Consultant, December 21, 2018). While the L&D unit at the firm offers a plethora of career development programs that focus on efficiency and improving productivity, the problem to be investigated through this study is that these programs fall short of building social capital and enhancing soft skill development (L. Schlangen, Instructional Designer, October 19, 2018). The training should offer a greater emphasis on improving social capital downward and curating team member experiences by improving listening and communication skills (Dr. M. Pita, Sr. Consultant, December 21, 2018). There is also a need for greater training on true self-esteem and motivating others. An awareness of one's motivators is essential to achieving success (R. Waller, Sr. Instructional Designer, December 17, 2018). The career development program at the firm presents a gap in practice because it does not provide adequate access to training on soft skills and enough social capital to support the development of career aspirations.

Communication and Self-Directed Learning

Today, communication encompasses everything from emails and social media to speaking, giving feedback, and creating rapport. Communication is a soft skill. Other soft skills include strategic thinking and interpersonal skills, which are also in skillsets employers across all industries want to see. Today many social connections are online. Instead of joining a club, people join an app or an online group. Instead of sitting down with someone and sharing, they share photos and news snippets on phones and tablets. The demand for soft social skills in the workplace has increased in the last twenty years (Borner et al., 2018). According to Peter Martin, Partner with Gosselin/Martin and Associates, Mystic, Conn, in addition to the logistics of managing facilities, leaders will also need to possess the needed soft skills to facilitate board meetings or explain sophisticated concepts (Borner et al., 2018).

Communication and adding skills are crucial in IT positions where people work across teams leading digitization (Ghouse et al., 2018). This is because many IT positions are siloed where individuals work independently, remotely, or in office cubicles. This means fewer interactions with humans and greater interaction with technology. This response requires collaboration skills which are important soft skills to be possessed by IT professionals (Ghouse et al., 2018). Emotional intelligence allows IT professionals to better collaborate with customers and stakeholders (Lee et al., 2019). This is because emotional intelligence (EI) forms the juncture at which cognition and emotion meet: it facilitates our capacity for empathy, communication, and our ability to navigate social situations and conflict (Lee et al., 2019). IT workers need communication, critical

thinking, and collaboration skills to function in their roles. Research suggests that traits like creative problem-solving and emotional intelligence will empower future generations to thrive in the digital age (Lee et al., 2019). The digital age includes a mixture of diverse workgroups that possess the ability to interact globally with a blend of cultures. The ability to use communication skills is important for employees to understand their workplace peers.

Technological Advancements

Often, the workplace relies on formal education to foster soft skill development. Lee et al. (2019) argued that the exponential pace of technological advancement will make traditional higher education obsolete and replace it with lifelong microlearning and upskilling models. Lee et al. suggest the classic four-year college education, with its emphasis on critical thinking, debating, viewing issues from several angles, and communicating clearly, was designed to teach soft skills. In the 21st century, there is a need for a lifelong approach to developing and enhancing soft skills. The development of these skills will ensure that adequate workforce resources are available and employable (Southeast Michigan Council of Governments [SEMCOG], 2012).

In general, parents and communities have more of a role in modeling and teaching skills while the role of education is to teach and reinforce, and for workforce development and employers to assess. Certain skills need to be introduced early on but should be reinforced as appropriate in the future. As Talent Task Force member Phil Rios states, “Soft skills are not necessarily a certificate, but a frame-of-mind issue”

(SEMCOG, 2012). The term “soft skills” itself is negatively compared to the more important sounding “hard skills” or “technical skills” (SEMCOG, 2012). This further impedes the likelihood of prioritizing these essential skills. For example, while customer service is not a soft skill specifically identified in the framework, many personal traits and life skills can increase an individual’s ability to provide better customer service.

Millennials and Baby Boomers

An aging population and the retirement of many baby boomers are expected to hinder economic growth in the future as the region faces a shortage of workers. This can be partly tackled by increasing the soft skill levels of people currently unable to participate in the workforce because of a lack of skills. Adopters of soft skills should be able to describe and apply the soft skills that they frequently use in their job and identify the soft skills they are expected to have to perform their roles in the digital age. Soft skills should be modeled over time by different stakeholders (SEMCOG, 2012). As industries shift to more advanced, automated processes, employers will need additional workers with IT skills to drive transformation. Twenty years ago, consumers interacted more with human workers (SEMCOG, 2012). Today, AI is increasingly replacing those workers, leaving IT professionals to service the machines. These IT professionals need communication and collaboration skills to function in their roles; both communication and collaboration are soft skills and descriptors of emotional intelligence (SEMCOG, 2012).

The digital age has ushered in the rise of millennials in the workplace. Organizations have placed greater emphasis on the need for workers with enough soft skills (Adair, 2007). In 2018, a Bloomberg Next study sponsored by Workday – "Building Tomorrow's Talent: Collaboration Can Close Emerging Skills Gap" – included responses from 200 senior-level professionals from both academia and business. According to the study, employers are now more focused on interpersonal skills rather than GPA. Millennials now occupy many of the available management positions as boomers retire. Millennials, also known as Generation X or Gen Y, are the demographic cohort following Generation X and preceding Generation Z. Researchers use the early 1980s as starting birth years for millennials: Baby boomers were born between 1944 and 1964; Generation X leaders were born between 1965 and 1979; Generation Y was born between 1980 and 1994; and Generation Z was born between 1995 and 2015 (Inspiring Millennials and Managing Gen Y & Z and the Millennial Soft Skill Gap, 2015). The formative years of each generation are very different from each other. Although it is difficult to draw clear boundaries along these generational lines and fruitless to overgeneralize, they are each, in part, a product of their time. With the boomers and Generation X heading toward retirement, Generation Y and Generation Z are the future of business (Panwar, S., & Mehta, A. (2019). The need for workers in the digital age to possess soft skills has long been established and leaders are tasked with responding to the rapid shift in the need from hard skills to soft skills (Adair, 2007).

Leading in the Digital Age

Leaders in IT could enhance their leadership styles by understanding EI competencies and practicing them daily with their workers (Trejo, 2016). Integrating soft skills into the curricula can improve an adult's learning outcome (Tseng et al., 2019). An executive-search firm, Heidrick & Struggles, evaluated its recruiting practices and the results of the evaluation indicated that technical expertise is less of a priority than soft leadership skills (Groysberg et al., 2011). According to industry leaders with Deloitte, the demand for soft skills is surging. In the 21st century, soft skills are critical proficiencies for workplace training and formal education (ManpowerGroup, 2018).

The digital age now impacts teaching and development and will continue to do so in the future (Preston et al., 2017). Deloitte produced a professional development soft skills model that indicated that soft-skill occupations will dominate the job market by 2030 (ManpowerGroup, 2018). The digital age will usher in a need for new skilled workers who can design and program AI (Jagannathan et al., 2019). The key attributes possessed by the workforce in the digital age include basic digital skills. Soft skills that support the technology sector helps help to improve the workplace (Darie et al., 2019). AI and robotics have changed the landscape of the job market. Some jobs have disappeared, while new ones have been created (Jagannathan et al., 2019). To survive as a leader in the digital age, the leader must be a strategic thinker. While the education system assists with the building of soft skills, there is a higher value placed on self-taught skills and on-the-job training than those learned in a formal education setting (Glazer, 2017).

The Fourth Industrial Revolution and Digital Disruptors

According to Oldham and Da Silva (2015), the fourth industrial revolution is a disruption. A digital disruptor is a situation or entity caused by technological advancements that fuel a shift in fundamental behaviors in culture (McQuivey, 2013). West (2018) warns that the digital economy is in the early stages of its disruption. The pace of change is expected to accelerate. The difference between the fourth industrial revolution compared to its predecessors is that the change is not linear; rather, it is exponential. This response will require rapid change adoption. Social change implications may include job sustainability and community economic enhancement. The future of work will impact us all. An example of digital disruptors is AI implemented in workplaces that aim to improve process efficiency. While a learning management system (LMS)—software that companies use to develop, deliver, and track training for employees—can reduce cost and improve efficiency, the system eliminates the need for human workers such as trainers and increases the need for IT specialists to administer the system.

The LMS is a digital disruptor because it causes change by implementing technological advancements that fuel a shift in fundamental behaviors in the workplace. The LMS, like much of the technology today, contains an AI component, which is a digital disruptor. Digital disruption is the potential threat to a company's viability posed by digitally enabled competitors. Another example is the disruption of the retail industry by digital competitors, such as the disruption of the transportation industry by Uber and

Lyft. As automation becomes more sophisticated, AI is disrupting the workforce by eliminating the need for people. For instance, AI-empowered factory robots automate assembly line activities. AI has already become an integral part of our work lives.

Soft skills used as a basis for the development of technical functions are the skills the industry desires most (Kennedy, 2015). For example, the LMS administrator is managing a system that has technical functions. Aside from managing the technical aspects, IT professionals are also charged with the task of customer service and collaboration with other IT workers. Both customer service and collaboration are soft skills. This is an example of how soft skills are used as a basis for the development of technical functions.

Adopting New Soft Skills

IT professionals face an increasing role diversification change. They are challenged with developing current soft skills and continually adopting new ones (Trejo, 2016). In response to this phenomenon, many organizations aim to better understand emotional intelligence when their actual goal should be to better understand the link between organizational performance and emotion (Chin et al., 2015). Leadership should adopt ways to make EI learning and development a continuous part of employee development (Trejo, 2016).

Today, IT is cross-functional and a contributor to business transformation. This means that every role in an organization is supported by IT. Whether it is setting up technology during onboarding, submitting a timecard, or requesting time off, these tasks

are supported by IT. IT professionals need soft skills such as communication, interpersonal, and listening skills to successfully support their organization. Possessing minimal or no soft skills can negatively affect a worker's ability to obtain and maintain employment (SEMCOG, 2012). Both LMS administrators and workers will require technical support for training and troubleshooting technical issues. An IT employee can train team members on troubleshooting tips and support the end user's experience with the LMS.

IT may be the most challenging program in terms of skill gaps due to the fast pace of change in hardware and software development. The role of IT professionals in industries and organizations has expanded over the years. From simple encoding of business transactions to and generation of reports, IT has stretched on to become an important means for various forms of business process outsourcing (Patacsil & Tablatin, 2017).

In a world where IT knowledge and soft skills are critical elements for nations to prosper, primacy is placed on the quality of soft skills and skillsets to meet the demands of the industries (Ahmad et al., 2019). Despite these demands, both public and private schools are facing gaps in producing graduates who can meet industry demands (Patacsil & Tablatin, 2017). One reason for the skills gap is that many of the graduates are not equipped with industry-relevant soft skills, especially in industries related to science and technology (Ahmad et al., 2019). IT professionals perceive those hard skills as especially

important while industry experts perceive soft skills as somewhat important (Patacsil & Tablatin, 2017).

Opportunities and experiences for students to engage in soft skill development and employability skills are provided within a system that includes the home and the parent, the school, and the teacher (DiBenedetto & Myers, 2016). Apart from the schools, the role of family and friends must also be considered because it may affect the behaviors and practices of the students. Therefore, it is recommended that a study in secondary schools be carried out to determine the factors that affect the practices of soft skills (Ahmad et al., 2019). Teachers need support to prepare students to be career ready. Students learn career skills in an environment that is built to support their needs (DiBenedetto & Myers, 2016).

Lifelong Learning Soft Skills Framework

The lifelong learning soft skills framework addresses many of the challenges faced by employers in raising awareness surrounding soft skills. There is a plethora of soft skills categories that are fostered by workforce development professionals (SEMCOG, 2012). The challenge is that many of the categories focus on a specific audience, which limits their applicability. The framework also outlines a matrix that identifies a cluster of soft skills and a mix of stakeholder groups. The skills are divided into categories: life skills, which includes include problem-solving, teamwork, time management, conflict resolution, and financial literacy; personal traits, which include ethics, initiative, judgment, positive attitude, and self-confidence; and, finally, academic-

learned skills, which includes basic digital literacy, reading, writing, and arithmetic. According to SEMCOG (2012), the matrix outlines the soft skills and partnering groups that shape the framework. Additionally, the matrix highlights the most appropriate stakeholder role(s). One of the goals of the framework is to ensure that adequate workforce resources and qualified human capital are available to the IT industry (SEMCOG, 2012).

In the 21st century, there is a need for a lifelong approach to developing and enhancing soft skills. The development of these skills will ensure that adequate workforce resources are available and IT professionals are employable (Southeast Michigan Council of Governments [SEMCOG], 2012). Twenty years ago, consumers interacted more with human workers (SEMCOG, 2012). Today, AI is increasingly replacing those workers, leaving IT professionals to service the machines. IT professionals need communication and collaboration skills to function in their roles; both communication and collaboration are soft skills and descriptors of emotional intelligence (SEMCOG, 2012). Soft skills should be modeled over time by different stakeholders (SEMCOG, 2012). As industries shift to more advanced, automated processes, employers will need additional workers with IT skills to drive transformation.

The Talent Task Force, created by SEMCOG and the Metropolitan Affairs Coalition, has developed a lifelong learning soft skills framework (SEMCOG, 2012). This framework relates to the approach of the study because it promotes the need for a lifelong learning approach to developing and enhancing soft skills. It is a plan that

identifies basic skills for workplace success and documents some of the efforts to teach, reinforce, model, and assess these skills by eight stakeholder groups (SEMCOG, 2012). According to the Talent Task Force, soft skills are not necessarily a badge of honor, but rather a frame-of-mind issue (SEMCOG, 2012).

Furthermore, soft skills are learned incrementally and therefore should be fortified over time to reflect career and education development (SEMCOG, 2012). While technical credentials are of growing importance, there is still limited adoption of common soft skills credentials that are acceptable across sectors and employers. Soft skills are constructed incrementally, especially for IT professionals. The Lifelong Learning Soft Skills Framework outlines several of the challenges faced by IT workers and stakeholders raising awareness of the need for building an incremental process for developing soft skills. This includes both current and future workers. There is a need for a holistic, incremental approach to soft-skill development to ensure that workers have a range of skills when they enter (or re-enter) the workforce. The main challenges are the inconsistency of application among providers as well as a limited focus on building upon previous soft-skill development (SEMCOG, 2012).

Project Description and Goals

The purpose of this study is to better understand how IT professionals learn/acquire soft skills. The purpose of the research conducted was to better understand the problem of IT professionals not participating in formal learning experiences for acquiring soft skills. Perceptions of their understanding of soft skills and the gaps in

practice that exist led to the development of a policy paper to address the problem regarding how IT professionals acquire soft skills. led to the development of a policy recommendation paper that issues a call to action (Appendix A). The problem to be investigated through this study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Little is understood about how IT professionals describe and apply the soft skills that they consider necessary for their employability (ManpowerGroup, 2018). The policy recommendations could close or reduce the gap between job expectations and hiring skilled IT professionals. Adopters of soft skills should be able to describe and apply the soft skills that they frequently use in their job and identify the soft skills they are expected to have to perform their roles in the digital age. The main challenges remain the lack of consistency among providers and the limited focus on building upon previous soft-skill development. Often the workplace relies on formal education to foster soft skill development. Lee et al. (2019) argued that the exponential pace of technological advancement will make traditional higher education obsolete and replace it with lifelong microlearning and upskilling models. The classic four-year college education, with its emphasis on critical thinking, debating, viewing issues from several angles, and communicating clearly, was designed to teach these skills (Lee et al. 2019).

Often workplace training programs have a start and an ending. Many workplace programs related to soft skills development are facilitated by workforce development (SEMCOG, 2012). The policy recommendation paper advocates for the notion that soft skills should be taught, modeled, and reinforced by different stakeholders and employees

over time (SEMCOG,2012). As soft-skill development is not innate and requires instruction, leaders also play an important role in the development of soft skills. The primary goal of the policy paper is to offer a solution to encourage collaboration among stakeholders to develop solutions that address soft skill policy, practices, and structural enhancements.

Project Evaluation Plan

Evaluating the project before distributing it is crucial because it could lead to enhancing the overall policy recommendation paper. A formative evaluation tool will assess the overall policy recommendation paper. The process of evaluating the policy paper and identifying additional stakeholders, such as seasoned IT professionals in non-leadership positions, before sharing it with a broader audience will be an effective and efficient way to prepare for its distribution. The survey includes an area for participants to identify additional stakeholders to include in the presentation recommendation. Evaluative feedback will be solicited from at least three workforce leaders before the recommendations are publicly released. These stakeholders will have an opportunity to evaluate the policy recommendations to ensure the paper is appropriately developed and includes practical strategies to advance soft skill development. The stakeholders will review the policy recommendation paper and complete the evaluation survey. Their responses will help to ensure that the right audience is present. The feedback received from these stakeholders will be invaluable in ensuring strong policy recommendations.

Implications for Social Change

Social change implications may include job sustainability and economic enhancement career advancement. If workplaces are unable to fill positions, some businesses may be forced to reconstruct or close entirely. This could have an extreme impact on the economy. The future of work will impact us all. An example of digital disruptors is AI implemented in workplaces that aim to improve process efficiency. Many organizations now utilize learning management systems to coordinate training efforts. While a learning management system (LMS)—software that companies use to develop, deliver, and track training for employees—can reduce cost and improve efficiency, the system eliminates the need for human workers such as trainers and increases the need for IT specialists to administer the system. The LMS is a digital disruptor because it causes change by implementing technological advancements that fuel a shift in fundamental behaviors in the workplace. The LMS, like much of the technology today, contains an AI component, which is a digital disruptor. Digital disruption is the potential threat to a company's viability posed by digitally enabled competitors. One example is the disruption of the retail industry by digital competitors, such as the disruption of the transportation industry by Uber and Lyft. As automation becomes more sophisticated, AI is disrupting the workforce by eliminating the need for people. For instance, AI-empowered factory robots automate assembly line activities. AI has already become an integral part of our work lives.

Walden University is an advocate for social change and encourages students to become scholar-practitioners who believe in their ability to impact their communities and

industries. The research conducted for this project study led to the development of a policy recommendation paper that has the potential to effect positive change in the areas of professional development and adult education. While the results and recommendations cannot be generalized to the entire field, they may be useful to workforce leaders, educators, parents, and the community. The recommendations may also be useful for those who continue working to advance their profession. These policy recommendations will contribute to social change by identifying critical soft skills training strategies for adults seeking to maintain access to employment.

Summary

The policy recommendations associated with this research study offer an opportunity to address a gap in practice by advocating for efforts to teach, reinforce, model, and assess soft skills. Stakeholders include education, workforce development, employers, parents, and the community. The policy recommendations outlined above could potentially afford leaders the ability to upskill their workforce on the soft skills they are expected to have to perform in their roles. As well as identify skillsets with growing market demand to possibly tap an underutilized segment of the workforce. The policy recommendations outlined may also inform the development of a Soft Skills IT Professional Development/Training Curriculum.

The existing research landscape demonstrates that stakeholders face challenges in raising awareness of the need for building an incremental, comprehensive system for developing soft skills amongst current and future workers. Should they be adopted, the

recommendations that evolved from this study would require all stakeholders to adopt the (LLC) Lifelong Learning Challenge. Combined with research and data, the policy recommendation paper provides stakeholders with a viable option that builds upon existing quality upskilling initiatives. This study and the policy recommendations in many ways will contribute to the advancement of career and education development by emphasizing the need for a lifelong approach to developing soft skills and could lead to recommendations that address workforce training requirements for not only IT professionals but all adult learners and professionals.

Section 4: Reflections and Conclusions

The problem investigated throughout this study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Little is understood about how IT professionals describe and apply the soft skills that they consider necessary for their employability (ManpowerGroup, 2018). The purpose of this study was to better understand how IT professionals learn/acquire soft skills. Manzoor (2012) believed many IT professionals often know little about what soft skills are required to secure and maintain employment in the digital age. While soft skills are a sought-after skill set, they cannot always be acquired easily. This might be due to the inability to identify or define soft skills. Professionals must understand which soft skills they need to remain employable in the digital age.

A series of one-on-one interview questions for this study were designed to elicit in-depth responses from participants. Qualitative data consist of collecting responses from people about their opinions, experiences, feelings, and knowledge. An interview protocol facilitated dialogue and guided the data collection process. There were nine semi-structured interview questions and two to three probing follow-up questions. The duration of each interview lasted on average 30–45 minutes. The interview questions were not always asked in a specific order. Participants for this study consisted of 22 IT professionals with various backgrounds. The experience level ranged from 2 years to as many as 20 years. The participants provided the data for this study.

Through analysis of the data, I recognized that their training experiences did little to contribute to soft-skill-development. The insight gained through the data analysis led to the development of a policy recommendation paper advocating for the implementation of the lifelong learning challenge (LLC). The project incorporates suggestions identified by the lifelong learning soft skills framework (SEMCOG, 2012).

Project Strengths and Limitations

This section highlights the project's strengths and limitations, recommendations for future research, and knowledge gained throughout this process. It concludes with a reflection on the significance of the project and its effect on social change. The existing literature and the research findings frame the final project. The participants in the study indicated that the main challenges remain the lack of consistency among providers and the limited focus on building upon previous soft-skill development.

The classic four-year college model was designed to teach soft skills (Lee et al. 2019). Further data revealed that people may struggle with identifying and describing soft skills. Not being able to identify or describe the soft skills they need to improve could impede their ability to improve in that area. A primary strength of the project is its focus on fostering the essential soft skill qualities needed to have a successful career path. The recommendations include a policy recommendation paper that supports the "Talent Task Force," created by SEMCOG and the Metropolitan Affairs Coalition, which has developed a lifelong learning soft skills framework (SEMCOG, 2012). The Talent Task Force includes encouraging new funding to match district investments on the state and

local levels and increase overall contribution funding, by investing additional resources by leveraging funding and other sources to propel the upskilling of soft skills across the country. An additional strength is a recommendation for training departments to mobilize and allocate sufficient financial resources to support enhanced and successful participation in adult learning and soft skills training. This includes, but is not limited to, raising awareness through policy and allows the use of state facilities to plan, develop, implement, and facilitate training through workshops and other activities that promote the acquisition and fostering of soft skills. A third strength focuses on encouraging stakeholders to acquire new soft skills by actively participating in programs that promote soft-skill development as a lifelong effort. Last, the policy recommendations encourage ongoing collaboration between the stakeholders who have a vested interest in adopting measures that lead to fostering programs that integrate soft skills in all efforts to train, develop, and upskill adult professionals.

A limitation of the project is the time it could take for the recommendations to become policy. Modern society has become a network society that runs based on knowledge and information (Stingl, 2019). By 2025, many familiar jobs will be performed by machines. Machines will be doing basic tasks that require abilities such as operational skills (functioning as forklift operators and assembly line workers), administrative skills (secretaries and bank tellers), and computational skills (accountants) [SEMCOG], 2012). However, despite being highly qualified and receiving adequate training in universities and colleges, many outgoing professionals remain unemployable. While the education system assists with the building of soft skills, there is a higher value

placed on self-taught skills and on-the-job training than those learned in a formal education setting (Glazer, 2017). In this study, I focused only on the perspectives of IT workers. A broader perspective from a diverse group of stakeholders and role models may have further validated the study findings. Social learning can be used by researchers to investigate ways that positive role models can be used to encourage desirable behaviors and facilitate social change (Bandura, 1986).

Recommendations for Alternative Approaches

Project studies can proceed in a plethora of ways. Creswell (2009) suggested that in qualitative studies, the data collection methods are typically observations, interviews (individuals or focus groups), document reviews, or audio-visual materials. Interviews are commonly used by researchers to collect qualitative data (Merriam, 2009). An interview protocol was administered to collect data that address the major research question. Instead of limiting participation to IT workers only, I could have interviewed all stakeholders. Stakeholders include Human Resources, Training departments, and leadership. Their views might have led to a broader perspective on soft skills and current developmental barriers. The perspectives of administrators and c-suite leaders could enhance the study findings and resulting project.

Analyzing data from varying groups might have led to a more efficient implementation of the policy recommendations. In this study, I focused on a small segment of IT professionals using qualitative methodology. Because qualitative research requires small participant groups, the findings cannot be generalized. A quantitative

inquiry would have allowed data to draw from a variety of professional development programs (i.e., higher learning, or workplace development), which would have enabled me to explore training perspectives more broadly. Additionally, the quantitative methodology would have enabled the investigation of a correlation between current soft-skill readiness and the soft skills adult professionals need to maintain employment and advance in their careers.

Scholarship, Project Development, Leadership, and Change

My experience working in a plethora of industries has propelled my ability to determine strategies, metrics for measurement, and the appropriate method of delivery of content. I have a deep understanding of emotional intelligence, leadership, and communication. For this study, the data was collected after Walden's Institutional Review Board approved the study. Similarly, confidentiality is a critical consideration in all research. The processes developed by the researcher must protect the participants (Creswell, 2014). Researchers must maintain high ethical standards that protect their study participants and sites. Qualitative researchers must ensure that both the researcher and the participant mutually benefit from the scholarly exchange. As the researcher, it is my responsibility to educate the participants on my role as well as theirs. Researchers must become familiar with the nuances of academic writing. Researchers have a responsibility to maintain integrity in their writing and must accurately record the thoughts, ideas, and beliefs of study participants (Lodico et al., 2010). As I developed the policy recommendation paper, I continuously reflected on the interactions with the participants.

The problem that was investigated in this study is that IT professionals do not participate in a formal learning experience for acquiring soft skills. Little was understood about how IT professionals describe and apply the soft skills that they consider necessary for their own employability (ManpowerGroup, 2018). Soft skills are known as foundational skills or employability skills. They are non-technical skills that include personality traits such as work ethics; learned academic skills, such as basic reading and writing; and life skills, such as teamwork and critical thinking.

Analysis of Self as Scholar

Attaining a terminal degree has been a lifelong goal. I believe that educators and business leaders must take a proactive role in supporting learners by reconverting new areas of competencies and for educational institutions to create an environment that facilitates workforce transformation. I believe that a rising focus on soft skills is one of the greatest trends impacting the workplace today. The need for soft-skill training has increased as we rapidly approach the digital age.

As a scholar, this process has stretched me in ways I did not expect when I first started the study. In all my ways I challenged myself to fact-check more and research before making introducing information to an audience. The writing process has helped me to become a better communicator and listener. When I first identified the research question, I was not confident about how I was going to determine the answer. I became more confident when I started crafting the interview questions.

Conducting the interviews was enlightening for me. Introducing a topic, observing someone process, and digest it, and then providing a platform and safe space for them to reflect and express themselves was edifying. Organizing and reporting my findings proved to be more challenging than I first expected. Overall, I have grown as a researcher and scholar and I am pleased with the body of work. The development process has strengthened my writing and communication skills. I have also become a better researcher and developed my ability to effectively articulate my thoughts.

Analysis of Self as a Practitioner

As a proponent of the value and importance of adult education, it has been my lifelong goal to effect positive change that promotes soft-skill development. Matriculating through this process of learning a doctoral has impacted me as a scholar-practitioner. As a dynamic instructional designer and adult educator, I am passionate about business and teaching adults. This process has caused me to change in many ways. I am more careful about the information I share with others unless I have vetted my discovery. The development process has also enhanced my licensing skills. I have come to more critically reflect on my approaches to teaching and learning.

The highest quality research can have a huge and beneficial impact on society. I believe that education and professional development are the most fundamental resources a nation can offer to its citizens. I view Malcolm Knowles as the leading theorist that guides all my actions. My teaching approaches are now more embedded in the theories of adult learning. I have a history of success in elevating team performance to attain

business goals by creating ambitious training courses/curricula and delivering fresh, highly engaging presentations. I will evaluate my current teaching practices to determine if these approaches are adult learner-centered.

Analysis of Self as a Project Developer

The skills I have developed ensure that I can continue to conduct research that positively impacts adult education. One of the greatest skills I have acquired during this process is listening. There were several genres to select from for the project study, including program evaluation, curriculum plan, policy paper, and 3-day professional development program. The policy recommendation paper was the appropriate genre for this study because it provided a path to advocate on behalf of IT professionals and adult learners who enter the workplace without the benefit of training or advanced education in soft skills. The interview process allowed me to develop my listening and communication skills overall.

Throughout my career, I've come to realize that historically, the most valuable assets to job creators were financial and material capital. In a changing global economy, however, that is no longer the case. Today, talent has surpassed other resources as the driver of economic growth. In my experience, a common thread in discussions amongst executive leadership is the need for more soft-skill training. As a scholar-practitioner, I have learned to address the many facets of effective research. This study has stretched me as a developer. I have the desire now to produce additional studies in the future. The

practices and writing principles I have acquired along the way will propel my success as a scholar-practitioner.

Reflection on the Importance of the Work

In this study, I investigated how Information Technology professionals learn/acquire soft skills. Bandura's social learning theory guided this study. The lifelong learning soft skills framework addresses many of the challenges faced by employers in raising awareness surrounding soft skills. There is a plethora of soft skills categories that are fostered by workforce development professionals (SEMCOG, 2012). The challenge is that many of the categories focus on a specific audience, which limits their applicability. Despite being highly qualified and receiving adequate training in universities and colleges, many outgoing professionals remain unemployable. One of the principal reasons is that the current academic system gives more priority to teaching technical skills than imparting soft skills and behavioral attributes to students (Stingl, 2019).

The project study has resulted in a policy recommendation that would include recommendations for raising awareness of the links between soft skills and success in the workplace as well as ways to advocate for strengthening and integrating soft skills curriculum and funding. Participants for this study consisted of 20 IT professionals with various backgrounds. The experience level ranged from 2 years to as many as 20 years. The study participants deemed knowledge of soft skills and leadership development training as essential for their work. As industries shift to more advanced, automated processes, employers will need additional workers with IT skills to drive transformation.

The individuals who participated in this study also emphasized their need for interactive, hands-on, self-directed soft skills training. Reaffirming the framework of lifelong learning constitutes an indispensable foundation for adult learners to identify and acquire the soft skills they need to maintain employment and advance in their careers. The highest quality research can have a hugely beneficial impact on society.

Implications, Applications, and Directions for Future Research

In general, the workforce has more of a role in modeling and teaching skills, while the role of education is to teach and reinforce and for workforce development and employers to assess. Certain skills need to be introduced early on but should be reinforced as appropriate in the future. As Talent Task Force member Phil Rios states, "Soft skills are not necessarily a certificate, but a frame-of-mind issue" (SEMCOG, 2012). The term "soft skills" itself is negatively compared to the more important sounding "hard skills" or "technical skills" (SEMCOG, 2012). This false perception of the term further impedes the likelihood of prioritizing these essential skills. IT professionals face an increasing role diversification change. They are challenged by developing current soft skills and are continually adopting new ones (Trejo, 2016). Today, IT is cross-functional and is a contributor to business transformation. This means that every role in an organization is supported by IT.

In the 21st century, there is a need for a lifelong approach to developing and enhancing soft skills. The main challenges are the inconsistency of application among providers as well as a limited focus on building upon previous soft-skill development

(SEMCOG, 2012). These issues prompted me to investigate how IT professionals learn/acquire soft skills. Ongoing research is essential to understand the many facets of acquiring soft skills incrementally. The overall goal was to better understand the problem of IT professionals not participating in formal learning experiences for acquiring soft skills. Data analysis showed that a lack of soft skills has a significantly negative impact on an individual's ability to improve their situation. Results further showed that a current lack of coordination among stakeholders has led to a fragmented approach that diminishes reinforcement and consolidation of skills. Social change implications for this study may include both professional and personal development training courses. Some examples might also include training that focuses on communication, emotional intelligence, and conflict resolution. The qualitative methodology suggests that phenomena should be investigated using small sample populations (Lodico et al., 2010). Ongoing research is essential to understand the specific soft skills IT professionals need to maintain employment in the 21st century. Researchers could investigate additional ways to teach, reinforce, model, and assess soft skills. HR divisions and recruiters might consider evaluating more soft skills for technical positions. Training departments might incorporate more soft skills into upskilling sessions.

Conclusion

The issue with many continuing education programs is that the design and development of the curricula are reactive in their approach to solving soft skill gaps. It is widely recognized that tertiary education does not provide all the knowledge and skills required to succeed in modern societies. It is also evident that while programs that foster

soft skills are rethinking their approach, the pivot is late in its efforts because technological advancements have propelled the expiration of previously adopted approaches to fostering soft skills. We live in a digital world. A world that is very different than it was when some of the older soft skill training programs were developed. For example, social media has caused a fundamental shift in the way we communicate today. Acronyms and shorthand have become popular ways to communicate. The demand for soft skills training for IT professionals is evident among employers. The supply of resources for obtaining soft skills is, however, scarce. The digital age impacts adult education now and in the future. The labor market expects students to acquire soft skills during their education. Consider, however, that the labor market is rapidly changing.

The existing research landscape demonstrates that stakeholders face challenges in raising awareness of the need to build an incremental, comprehensive system for developing soft skills amongst current and future workers. Should they be adopted, the recommendations that evolved from this study would require all IT professionals to adopt the prescribed policy recommendations. Combined with research and data, the policy recommendation paper provides stakeholders with a viable option that builds upon existing quality upskilling initiatives.

This study and the policy recommendations associated with this research study offer an opportunity to address a gap in practice by advocating for efforts to teach, reinforce, model, and assess soft skills. Stakeholders include Human Resources, Training

departments, and leadership. In many ways will contribute to the advancement of career and education development by emphasizing the need for a lifelong approach to developing soft skills and could lead to recommendations that address workforce training requirements for not only IT professionals but all adult learners and professionals.

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Appendix A: The Project

How IT Professionals Acquire Soft Skills

Policy Recommendation Paper

Executive Summary

These recommendations advocate for efforts to teach, reinforce, model, and assess soft skills. Stakeholders include Human Resources, Training departments, and leadership. The policy paper outlines emphasize the need for a lifelong approach to developing and enhancing soft skills because many of these skills are built incrementally and need to be refreshed over time to reflect career and education changes (SEMCOG, 2012). The current lack of coordination among stakeholders has led to a fragmented approach that diminishes reinforcement and consolidation of skills. This results in higher staff turnover, reduced productivity, and lower customer satisfaction (SEMCOG, 2012). The issue of soft skills development has been a particular challenge for educators and employers. Lack of soft skills also has a dramatic negative impact on an individual's ability to improve their situation. Without basic soft skills, they cannot pursue training or education that is increasingly necessary even for entry-level jobs (SEMCOG, 2012). Unlike technical skills, it is difficult to measure or evaluate success in soft skills, although it is clear where they are lacking.

The issue with many continuing education programs is that the design and development of the curricula are reactive in their approach to solving soft skill gaps. This dated model is harnessed to 20th-century industry needs. It is widely recognized that

tertiary education does not provide all the knowledge and skills required to succeed in modern societies. It is also evident that, while programs that foster soft skills are rethinking their approach, the pivot is late in its efforts. The demand for soft skills is evident. The supply of resources for obtaining soft skills is, however, scarce. The digital age impacts adult education now and in the future. The labor market expects students to acquire soft skills during their education. Consider, however, that the labor market is rapidly changing.

The goal of this research study was to raise the bar on the importance of soft skills and to build support and commitment from stakeholders. This does not prescribe specific actions or require changes to processes or priorities but encourages participation in discussions and programs that result in a better-prepared and skilled workforce. Based on the participants' responses during the interviews, a policy recommendation paper emerged as the final project. Evidence from the data analysis and literature review supported the development of the policy recommendations. The priorities for the study are that training is age and skill appropriate, a lifelong process, and soft skills are learned incrementally, and, therefore, should be fortified over time to reflect career and education development. In this section, I have outlined the policy recommendation paper that emerged from the findings of this study.

The Talent Task Force

The Talent Task Force, created by SEMCOG and the Metropolitan Affairs Coalition, has developed a lifelong learning soft skills framework (SEMCOG, 2012).

This framework relates to the approach of the study because it promotes the need for a lifelong learning approach to developing and enhancing soft skills. It is a plan that identifies basic skills for workplace success and documents some of the efforts to teach, reinforce, model, and assess these skills by eight stakeholder groups (SEMCOG, 2012). According to the Talent Task Force, soft skills are not necessarily a badge of honor, but rather a "frame-of-mind" issue (SEMCOG, 2012). Soft skills are not always learned in a traditional educational setting. The formative years of each generation are very different from each other. Although it is difficult to draw clear boundaries along these generational lines and fruitless to overgeneralize, they are each, in part, a product of their time. With the boomers and Generation X heading toward retirement, Generation Y and Generation Z are the future of business. America's economy has digitized over the past decade and our legacy infrastructure postsecondary education institutions and professional development programs have not come close to keeping up with the rapid, exponential changes in the workforce.

The Lifelong Learning Soft Skills Framework

The lifelong learning soft skills framework addresses many of the challenges faced by employers in raising awareness surrounding soft skills. There is a plethora of soft skills categories that are fostered by workforce development professionals (SEMCOG, 2012). The challenge is that many of the categories focus on a specific audience, which limits their applicability. The framework also outlines a matrix that identifies a cluster of soft skills and a mix of stakeholder groups. The skills are divided into categories: life skills, which include problem-solving, teamwork, time management,

conflict resolution, and financial literacy; personal traits, which include ethics, initiative, judgment, positive attitude, and self-confidence; and, finally, academic-learned skills, which include basic digital literacy, reading, writing, and arithmetic. According to SEMCOG (2012), the matrix outlines the soft skills and partnering groups that shape the framework. Additionally, the matrix highlights the most appropriate stakeholder role(s). One of the goals of the framework is to ensure that adequate workforce resources and qualified human capital are available to the IT industry. (SEMCOG, 2012).

Methodology

The primary goal of a qualitative research study is to uncover and interpret these meanings (Creswell, 2014). I explained to each participant their responses will be included in a study that aims to contribute to social change by identifying essential soft skills training strategies for adults seeking to maintain access to employment in the digital age. I also reminded them that the interview process intends to collect data to address the research questions. Participants for this study consisted of 22 IT professionals with various backgrounds. The experience level ranged from 2 years to as many as 20 years. There were nine males and eleven females. Two additional females were eliminated due to questionable background validity. Fifteen of the participants were software engineers, two were training consultants, and three held leadership titles. Three of the participants were active military or veterans. All the participants were actively working in the IT field. I used LinkedIn and my official Walden University email to select and communicate with the participants. Participants were made aware of the purpose of the study when they received the invitation. They were also provided an

overview at the beginning of the interview and offered an opportunity to ask questions before the start of the interview. The problem that was investigated in this study is that IT professionals do not participate in formal learning experiences for acquiring soft skills.

Qualitative research is best used for deeply exploring a topic or idea when you want unprompted and unbound input rather than set answers to structured questions. Also considered was quantitative research, which is used as a deductive process to test prespecified concepts and theories. Given that there were no prespecified concepts or theories and no knowledge of what to expect to define the problem, a quantitative study was not a suitable approach. The purpose and focus of this qualitative study were to better understand how IT professionals learn/acquire soft skills. Qualitative research is based on how meaning is constructed. Qualitative researchers believe that knowledge is continuously constructed by people as they engage and make meaning of the experience or phenomena under study (Merriam, 2009).

Structure of Data Collection

An interview protocol was administered to collect data that address the major research question. The interview questions for this study were designed to elicit in-depth responses from participants. Qualitative data consist of collecting responses from people about their opinions, experiences, feelings, and knowledge. An interview protocol facilitated dialogue and guided the data collection process. There were nine semi-structured interview questions and two to three probing follow-up questions. The duration

of each interview lasted on average 30–45 minutes. The interview questions were not always asked in a specific order.

I started each interview by asking how the participants defined soft skills. I listed some examples of soft skills for those who were unsure. Their response to this question provided some evidence of understanding and help to guide the interview process. Then, I allowed the interview to progress organically by asking follow-up questions or the next question on the list that was relatable to the participant's most recent response. These questions were posed in no specific order; they were asked based on the rhythm of the dialogue. To ensure I captured the participant's answers correctly, I offered a recap of their responses.

Summary of Findings

Because a basic qualitative design was used to complete the study, it was essential to ascertain the lived experiences of the IT professionals, as their careers evolved in the field of IT. A primary research question was developed and provided the basis for this study. To protect the participant's privacy, pseudonyms were used in place of their names. The interview protocol explored how participants acquire soft skills. Additional probative questions allowed participants to expand on their thoughts and experiences related to each research question.

Research Question 1

How do IT professionals acquire soft skills?

Most people are unable to identify or describe soft skills

Adopters of soft skills should be able to describe and apply the soft skills that they frequently use in their job and identify the soft skills they are expected to have to perform in their roles in the digital age. Soft skills should be modeled over time by different stakeholders (SEMCOG, 2012). While all the participants could describe the benefits of soft skills, only two listed specific soft skills and explained how they apply them in the workplace. The others were able to share examples of how soft skills were applied in the workplace. Several participants were not aware that they were using soft skills when executing a task on the job. For example, some participants were able to describe the soft skills they utilized when executing problems, while others described the soft skills they utilized to overcome challenges. Despite acknowledging that they overcame the challenges, they failed to attribute the success to the strength of their soft skills.

Many of the participants also struggled with what they described as “closing a deal.” When their struggles were closely examined, it was communication and emotional intelligence that they struggled with. This led me to conclude that people may struggle with identifying and describing soft skills. Not being unable to identify or describe the soft skills they need to improve could impede their ability to improve in that area. The lack of understanding and familiarity could potentially hinder their career advancement and professional development. It appears that while soft skills may not be required for a worker to get hired, soft skills do become a requirement when that worker wants to advance their career. It became apparent that people will commit to a path of lifelong learning as a means of remaining employable.

Soft Skills Are Not Always Learned in a Traditional Education Setting

Almost all the participants attributed the fostering and developing of their current soft skills to their parents and the community, such as the school or church. In most instances, the participants developed soft skills utilizing enforcement. The soft skills considered most valuable were determined by their parents and community. Many of the participants described themselves as introverts who preferred self-directed learning in an environment of their choice. Many of the participants also struggled with one-one conversations or discussions that invoked too much emotion or required emotional intelligence. All the participants agreed that soft skills were imperative for future career advancement and that the development of soft skills would be a lifelong process.

No Formalized Soft-Skill Development Paths

Each of the participants describe different soft skills they wanted to improve. Many listed more than one soft skill. What the participants did have in common was their motivation to advance in the workplace. I wanted to understand more about the participant's success in the role once they were given the job. I asked the participants to provide examples of the soft skills they need to be successful in their roles. Some of the participants described instances when they excelled at a technical job in which they had strong technical skills. However, when a leadership position became available, and they applied, they did not get the job because they did not have leadership experience. Many of the participants also indicated that communication and the ability to delegate are where they felt they struggled most. Several of the participants indicated that they had the book knowledge but, no practical, hands-on experience.

In many instances, a formalized development path for developing specific soft skills is not offered. Many programs related to soft skills development are facilitated by workforce development (SEMCOG, 2012). Because soft-skill development is not innate and requires instruction, parents also play an important role in the educational development of their children. Despite there not being a formalized training path for acquiring soft skills, all the participants identified a way to acquire and develop the needed soft skills. Most of the participants' methods for soft-skill development were self-prescribed and self-directed. The lack of a formalized development path could impede their ability to acquire or develop soft skills.

Literature Review

In the 21st century, there is a need for a lifelong approach to developing and enhancing soft skills. The development of these skills will ensure that adequate workforce resources are available and IT professionals are employable (SEMCOG, 2012). Twenty years ago, consumers interacted more with human workers (SEMCOG, 2012). Today, AI is increasingly replacing those workers, leaving IT professionals to service the machines. Internet technology professionals need communication and collaboration skills to function in their roles; both communication and collaboration are soft skills and descriptors of emotional intelligence (SEMCOG, 2012). Soft skills should be modeled over time by different stakeholders (SEMCOG, 2012). As industries shift to more advanced, automated processes, employers will need additional workers with IT skills to drive transformation.

Education is primarily a state and local responsibility in the United States. States and communities, as well as public and private organizations of all kinds, establish schools and colleges, develop curricula, and determine requirements for enrollment and graduation. That means the federal contribution to elementary and secondary education is very minimal. Soft skills are embedded into all the training to create a training path that provides skills participants can use immediately by mobilizing educators, employers, and community leaders to create a new generation of young people who will graduate and be career-ready to compete successfully in the 21st century. Essential practices include flexibility in applying academic knowledge and skills; problem-solving; critical thinking; teamwork, conflict resolution, creativity, and innovation. It focuses on nurturing skills such as emotional intelligence, empathy, communication, and global awareness. IT professionals face an increasing role diversification change. They are challenged by developing current soft skills and continually adopting new ones (Trejo, 2016). In response to this phenomenon, many organizations aim to better understand emotional intelligence when their actual goal should be to better understand the link between organizational performance and emotion (Chin et al., 2015).

Leadership should adopt ways to make emotional intelligence learning and development a continuous part of employee development (Trejo, 2016). An aging population and the retirement of many baby boomers are expected to hinder economic growth in the future as the region faces a shortage of workers. This can be partly tackled by increasing the soft skill levels of people currently unable to participate in the workforce because of a lack of skills. Adopters of soft skills should be able to describe

and apply the soft skills that they frequently use in their job and identify the soft skills they are expected to have to perform their roles in the digital age. Soft skills should be modeled over time by different stakeholders (SEMCOG, 2012). As industries shift to more advanced, automated processes, employers will need additional workers with IT skills to drive transformation. Twenty years ago, consumers interacted more with human workers (SEMCOG, 2012). Today, AI is increasingly replacing those workers, leaving IT professionals to service the machines. These IT professionals need communication and collaboration skills to function in their roles; both communication and collaboration are soft skills and descriptors of emotional intelligence (SEMCOG, 2012).

Policy Options

	Option 1	**Option 2**	**Open 3**
Corporate-Level	Offer new funding to match department investments.	Increase contribution funding by investing additional resources.	Allow the use of all facilities to plan, develop, implement, and facilitate training, workshops, and other activities that promote the acquisition and fostering of soft skills.

Specific Departments	Mobilize and allocate sufficient financial resources to support enhanced and successful participation in adult learning and education.	Allow the use of all corporate facilities to plan, develop, implement, and facilitate training, workshops, and other activities that promote the acquisition and fostering of soft skills.	Share tools to help families by extending the use of modern learning technologies and mobilizing resources to promote inclusive learning and promote the facilitation of upskilling in the workplace.
Leadership	Align with other stakeholders that have a vested interest in supporting collaborative initiatives that promote soft skills, to identify key soft skills that support the development of new skills.	Stakeholders with the means and resources to implement social change should develop policy recommendations and advocate for strengthening and integrating soft skills curriculum and funding.	Acquire new soft skills by actively participating in programs that promote soft-skill development as a lifelong effort.

Recommendation

Based on the results of this study, it is recommended that all stakeholders adopt the program recommendations. Reaffirming the framework of lifelong learning constitutes an indispensable foundation for adult learners to identify and acquire the soft skills they need to maintain employment and advance in their careers. The highest quality research can have a hugely beneficial impact on society. I believe that education and

professional development are the most fundamental resource a nation can offer to its citizens. The policy recommendations are the result of this study and aim to raise public awareness of the importance of soft skills. And to emphasize soft skills in the workplace and align employability and life success. The program targets IT professionals in the workplace. The policy recommendations associated with this research study offer an opportunity to address a gap in practice by advocating for efforts to teach, reinforce, model, and assess soft skills. Stakeholders include Human Resources, Training departments, and leadership. The policy recommendations outlined above could potentially afford leaders the ability to upskill their workforce on the soft skills they are expected to have to perform in their roles. As well as identify skill sets with growing market demand to possibly tap an underutilized segment of the workforce. The policy recommendations outlined may also inform the development of a Soft Skills IT Professional Development/Training Curriculum. The existing research landscape demonstrates that stakeholders face challenges in raising awareness of the need to build an incremental, comprehensive system for developing soft skills amongst current and future workers. Should they be adopted, the recommendations that evolved from this study would require all stakeholders to adopt the policy recommendations. Combined with research and data, the policy recommendation paper provides stakeholders with a viable option that builds upon existing quality upskilling initiatives. This study and the policy recommendations in many ways will contribute to the advancement of career and education development by emphasizing the need for a lifelong approach to developing

soft skills and could lead to recommendations that address workforce training requirements for not only IT professionals but all adult learners and professionals.

Implementation

Human Resources

Offer new funding to match district investments and increase contribution funding by investing additional resources by leveraging funding and other sources to propel the upskilling of soft skills across all positions.

Training Department

Training Departments should mobilize and allocate sufficient financial resources to support enhanced and successful participation in adult learning and education. This includes but is not limited to, raising awareness through policy enforcement. Allow the use of department resources and facilities to plan, develop, implement, and facilitate training, workshops, and other activities that promote the acquisition and fostering of soft skills. Share tools to help families by extending the use of modern learning technologies and mobilizing resources to promote inclusive learning and promote the facilitation of upskilling in the workplace.

Leadership

Adopt

Adopt the Lifelong Soft Skills Framework created by SEMCOG, the Southeast Michigan Council of Governments, and the Metropolitan

Affairs Coalition. The framework emphasizes the need for a lifelong approach to developing and enhancing soft skills.

Align

- Align with other stakeholders who have a vested interest in supporting collaborative initiatives that promote soft skills, to identify key soft skills that support the development of new skills, as well as promote incremental growth or reinforcement of skills by increasing coordination between stakeholders.

    - **Acquire**

- Acquire new soft skills by actively participating in programs that promote soft-skill development as a lifelong effort. Leaders should participate in advisory committees for core curriculum like their participation in committees for career technical education.

    - **Apply**

- Apply what you learn by promoting best practices in soft-skill development initiatives and raising public awareness of the importance of soft skills through a media campaign that identifies how soft-skill development can be an economic development tool. Stakeholders with the means and resources to implement social change should develop policy recommendations and advocate for strengthening and integrating soft skills curriculum and funding. This includes emphasizing soft

skills in the core soft skills and making connections with employability and life success.

- **Appraise**

- Appraise all efforts to measure success. The policy recommendations do not identify specific measures but encourage all stakeholders to measure success as they implement solutions. Key characteristics of successful soft skills programs should include collaboration with different stakeholders in establishing and implementing programs as well as public-private funding that provides additional flexibility and the ability to be innovative. The goal is to foster programs that integrate soft skills in all efforts to train, develop, and upskill adult professionals.

Conclusion

As a dynamic instructional designer and entrepreneur, I am passionate about business and teaching adults. I have a history of success in elevating team performance to attain business goals by creating ambitious training courses/curricula and delivering fresh, highly engaging presentations. Throughout my career, I've come to realize that historically, the most valuable assets to job creators were financial and material capital. In a changing global economy, however, that is no longer the case. Today, talent has surpassed other resources as the driver of economic growth. In my experience, a common thread in discussions amongst executive leadership is the need for more soft-skill training.

This study will contribute to positive social change because the findings will inform efforts to improve job sustainability for IT workers by providing a better understanding of how soft skills are acquired. IT workers stand to benefit from the findings of this study. The findings can be used to help with mapping IT workers' learning paths for acquiring soft skills. This study will also contribute to the advancement of career and education development by emphasizing the need for a lifelong approach to developing soft skills, professionals' perspectives of their soft skills, and how they apply their soft skills to employability.

Appendix B: Interview Protocol

RQ 1: How do I.T. professionals learn/acquire Soft Skills?

Interview Questions:

1. How would you define the term “soft skills”?
    a. A definition will be provided if the interviewee is unfamiliar.
    b. What are some examples of soft skills used in your current job?
    c. How do you apply these softs skills in your current job?
    d. How did you acquire/learn these soft skills?
2. Tell me about your professional experience, as an Information Technology professional?
    a. How many years of experience do you have in the field of IT?
    b. How did you acquire your first position as an IT professional What soft skills were required for that role?
3. Describe a time when you wanted to apply for an IT position or role but, you did not meet the minimum soft skills requirement(s).
    a. Provide some examples of soft skills you needed but did not possess at the time.

   b. If you had an opportunity to develop the needed soft skills, where would you seek to acquire them?

4. What are some examples of soft skills you need to be successful in your work as an IT professional?
5. How do you apply critical thinking and communication skills in your current role as an IT professional?
6. Who played a key role in helping you acquire and develop the soft skills you currently use in your work as an IT professional?
   a. What soft skills would you like to improve? Why?
7. Describe any formal training or education you have received on any soft skills.
8. What additional soft skills training do you feel would improve your performance to gain future employment or career advancement?
9. What soft skills do you feel are most important for IT professionals to possess in the future?
10. Is there anything else that you would like to add?