2020

Aligning Workforce Training Center Curricula With Local Business Needs

Elizabeth P. Burns
Walden University

Walden University

College of Education

This is to certify that the doctoral study by

Elizabeth Priscilla Burns

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Richard Hammett, Committee Chairperson, Education Faculty
Dr. Joanna Karet, Committee Member, Education Faculty
Dr. Charlotte Redden, University Reviewer, Education Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2020

Abstract

Aligning Workforce Training Center Curricula With Local Business Needs

by

Elizabeth Priscilla Burns

MEd, Virginia State University, 1996

BA, Mary Baldwin College, 1991

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Adult Education

Walden University

April 2020

Abstract

Many cities in the United States have experienced job loss due to a shift from industrial-based to information and service economies, as well as the outsourcing of labor jobs to overseas locations. In the absence of industrial jobs once occupied by low-skilled workers, the problem that compelled this study was a perceived gap between the skills required by the employers who now hire such workers and the actual skills those workers have. The purpose of this qualitative case study was to explore the espoused skills required by employers in a rural region of the southeastern United States to inform the curricula alignment of a supporting workforce training center (WTC) that provides training and skills certification to the area's workforce. The research questions guiding this study were designed to help explore and understand the needs of employers and whether the WTC was adequately training low-skilled workers to meet those needs. The conceptual framework for the study included Mezirow's transformational learning theory. The sampling method was purposeful to include only Chamber of Commerce members as potential business participants. The participants consisted of 14 business managers, supervisors, and human resource directors from local businesses, as well as the local WTC director. Overall, the WTC curricula aligned with the employer identified skills, even though the WTC did not provide industry-specific skills training for some of the represented industries. In addition, not all employers were aware of and utilized WTC services when looking for new hires. Recommended strategies to increase collaboration between the WTC and local businesses are provided in a policy project paper. Positive change occurs when WTCs prepare and place the unemployed in jobs and careers.

Aligning Workforce Training Center Curricula With Local Business Needs

by

Elizabeth Priscilla Burns

MEd, Virginia State University, 1996

BA, Mary Baldwin College, 1991

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Adult Education

Walden University

April 2020

Dedication

I dedicate the successful completion of my doctoral degree to my awesome family:

My daughter, Lateefah and my son-in-law, Terry

Nephews LaTarik, Kian & wife Wendy, Octavian, Rashaad, and Jamal

Nieces Alisha & Sabrina

Siblings Loretta, Oscar & Yolanda, Maxine, Joe Joe, and Valerie & Melvin

Grandchildren Hashim, Zamir, and Khalil

Great-nieces Jaida and Messiah

Great-nephews Jabril, Bishr, and Cameron

I hope that my work is an inspiration for you to follow your passions and dreams.

I just want to make ya'll proud.

I love you guys!

IN LOVING MEMORY OF

My family who did not get to witness this major accomplishment in my life:

My father & mother, Joseph & Eloise "Dee Dee"

My grandparents Tom & Mary, Charlie & Beulah

Step-grandfather James "Pops"

Cousin Esther who always inspired me in many ways

You all may be gone but are not forgotten. RIP! I love all of you!

A Special Dedication to Myself

Elizabeth, you did it! God gave you the strength and courage to persevere
without giving up in order to reach this milestone in your life
as well as in your professional and academic career.

Our Deepest Fear....

by Marianne Williamson

"Our deepest fear is not that we are inadequate.

Our deepest fear is that we are powerful beyond measure.

It is our light, not our darkness that most frightens us.

We ask ourselves, 'Who am I to be brilliant, gorgeous, talented, fabulous?'

Actually, who are you not to be? You are a child of God.

Your playing small does not serve the world.

There is nothing enlightened about shrinking so that other people won't

feel insecure around you.

We are all meant to shine, as children do.

We were born to make manifest the glory of God that is within us.

It's not just in some of us; it's in everyone.

And as we let our own light shine, we unconsciously give other people

permission to do the same.

As we are liberated from our own fear, our presence automatically liberates others."

Acknowledgments

First, I give honor and glory to my Lord and Savior Jesus Christ. I thank you God for putting the desire in my heart and for giving me the knowledge and wisdom to begin and complete this doctoral study and journey.

I want to thank all the participants because without you, this study would not have even come to existence.

Thank you Mary, SVCC Librarian Specialist, for running down and ordering the books I needed and for always saying "Miss Elizabeth, it's going to work out, it's going to be okay" whenever my feathers were ruffled or I had to just TELL it.

Thank you Osborne for saying "Burns, you can do it. I know you can".

Thank you Henderson for listening when I needed to vent then proceed to explain the WHY of it all; now it makes sense.

I must say my doctoral committee was exceptional and consistently provided feedback to assist me in reaching my goal. Your knowledge and expertise contributed mightily to the success and completion of this study. To Dr. Richard Hammett, thank you for being an awesome Chair. To Dr. Joanna Karet, thank you for being a great 2nd Member. To Dr. Charlotte Redden, thank you too for being a great URR. You guys were amazing as a team!

Last, a *special* thank you to Dr. Hammett for all that you taught me, especially how to eat an elephant. LOL!! I am happy and pleased to say this elephant has been devoured! Woohoo!!!

Table of Contents

iii

iv

List of Tables

List of Figures

Section 1: The Problem

Introduction

The middle and southeastern United States has endured two decades of job loss as industrial-based economies transition to information and service economies (Chopra, 2016; Fallin, 2014; Thiede, Lichter, & Sanders, 2015; Torraco, 2016; Young, 2013). Unemployed and under financial stress, many workers and their families living in rural areas have felt the pressure of new challenges and obstacles this new high tech, high demand economy brings (Slack, 2014; Torraco, 2016; Young, 2013). The people affected by this shift include a generation of workers who once earned good wages working in textile mills, in manufacturing and production companies, and some agriculture jobs that have since closed or have been outsourced (Athreya, Neelakantan, & Romero, 2014; El Mansour & Dean, 2016; Lichter & Schafft, 2014; Young, 2013). In many cases, this group of individuals has been laid off from old-economy jobs that will likely never return, or their skills are no longer sufficient for newly created positions (Bhat, 2010; Blustein, Kozan, & Connors-Kellgren, 2013; Griswold & Ellis, 2012; Office of the Governor of Virginia, 2014a; Wandner & Eberts, 2014).

Displaced and unemployed workers often struggle to achieve economic stability and self-sufficiency without the benefit of a high school diploma or a college degree (Danziger & Ratner, 2010; Wandner & Eberts, 2014). Adult workers 25-years-old and older have difficulty learning to adapt to economic circumstances over which they have little or no control (Gabriel, Gray, & Goregaokar, 2013; Hees, Rottinghaus, Briddick, & Conrath, 2012; Slack, 2014). For some adults, the shock of job loss negatively burdens

them and their families who depend entirely on a single income for subsistence and quality of life (Blustein et al., 2013; Mandemakers & Monden, 2013). As purported by Athreya et al., (2014), the goal in these situations is to provide workforce training programs to help low-skilled, displaced, and unemployed workers find and keep meaningful employment. The problem that compels this study is the need to explore the alignment of the Workforce Training Center (WTC) training curriculum and the needs of regional employers to ensure the certificate and license training programs offered by WTC match employer needs.

Definition of the Problem

The governor of Virginia, the state where this study took place, called for WTCs, workforce development, and centers for continuing education at community colleges to partner with employers to discuss and identify skill sets needed for economic development in southern Virginia (Benbow & Hora, 2016; Jacobson, 2016; Office of the Governor, 2014a). Partnering with businesses, industries, and employers, according to the governor, will ultimately improve jobs, careers, and the quality of life for workers, as well as the overall economy for impacted areas (Office of the Governor, 2014b; Slack, 2014). WTCs also need to work to align their training curricula for low-skilled workers with the needs of local employers (WTC Director, personal communication; May 2015, January 2016). The context for this study, therefore, is situated in the Governor's call to action combined, with the need to align WTC curricula better to improve the employability and lives of low-skilled workers.

Weedon and Tett (2013) reported that low-skilled workers are targeted in a knowledge and service economy, and employers should provide every opportunity for them to upgrade their skills. In locations where the problem is pervasive, low-skilled workers would benefit from opportunities to develop and improve employability skills to compete in an ever-changing economy. Likewise, Griswold and Ellis (2012) suggested that displaced workers attend training programs provided by workforce development and continuing education centers to acquire the necessary credentials and skills to re-enter the workforce successfully. Unless those training centers offer training that is aligned with employer needs; however, neither the workers nor the area's businesses will gain the needed benefits from the training efforts.

The Virginia Governor's Office projections included the need for workforce credentials to increase to 1,500 in 2015 and "triple the number of postsecondary education and workforce" credential programs through 2019 (Economic Research Service, 2013, 2014a, 2014b; Office of the Governor, 2014b). As declared by Weedon and Tett (2013), "low-skilled workers lack confidence and need support to ensure growth and social inclusion" (p. 724). Griswold and Ellis (2012) also recommended that displaced workers attend community and technical colleges to acquire the necessary credentials and skills to re-enter the workforce successfully. As adults return to school to upgrade employability skills, workforce development centers need to respond to goals and objectives that align with employer needs (Holzer, 2015; Robles, 2012; Srivastava & Hasan, 2016).

Rationale

Evidence of the Problem at the Local Level

Adult workers living in rural areas have been disproportionately impacted by a lagging economy and the outsourcing of jobs (Farber, 2011; Holland, 2015; Schaeffer, Kahsai, & Jackson, 2013; Thiede, Lichter, & Slack, 2016). Layoffs resulted because of company and business downsizing and cutting costs, relocation or closures, and changes in technology (Cover, 2011; Slack & Jensen, 2014; Sung & Ashton, 2014). As a result, the changing economy placed low-skilled, displaced and unemployed workers at a disadvantage when they attempted to compete against job candidates with more training, education, and updated skills (El Mansour & Dean, 2016; Landon & Ritz, 2011). To better meet the needs of business and industry in rural areas, WTCs must partner with employers to identify skills needed to train workers to meet the employers' present and future workforce demands (Alexander & Goldberg, 2011; Farber, 2011; Jacobson, 2016; Office of the Governor, 2014b; U.S. Department of Education, 2012).

According to the Office of the Governor (2014b), the state suffers economically because there are not enough skilled and educated workers to meet the demands of the state's employers. In Virginia, the Governor's priority to improve the employment status of unemployed workers is a positive step toward strengthening the workforce and the state's economy (Economic Research Service, 2014a, 2014b; Office of the Governor, 2014b; U.S. Department of Education, 2012). Athreya et al., (2014) reported an 11% unemployment rate for adult workers with minimal education compared to only 5% unemployment for individuals with a college degree. The authors further reported the

unemployment rate for adult workers without a high school education at 15.8%,

compared to 6.3% for high school credentialed workers, and only 3.3% for college-

educated workers (Athreya et al., 2014). Because the 2007-2009 recession caused so

many companies in the rural southeast to downsize, close, and relocate the Office of the

Governor (2014a) predicted that 50,000 unemployed and low-skilled individuals would

experience job loss for lack of employment. Therefore, workforce development centers

must partner with employers to improve employability skills (Griswold & Ellis, 2012;

Magsamen-Conrad, Dillon, Hanasono, & Valdez, 2016; Office of the Governor, 2014b;

Slack & Jensen, 2014).

The focus of this study was to explore the degree to which a local WTC was

preparing its low-skilled, displaced, and unemployed adult students for success in the

local job market based on the needs of local employers. In rural southeast Virginia, the

Governor called for the workforce training and workforce development centers to align

their education and training programs with the needs of local businesses and employers in

this region of Virginia (Bureau of Labor Statistics, 2015a, 2015b; Office of the Governor,

2014b; U.S. Department of Education, 2012, 2015). The alignment of workforce training

programs curricula is to include industry certifications and license/credential training that

will make these individuals more marketable while serving to improve their economic

status in this region (Office of the Governor, 2014a, 2014b). In response to this initiative,

the WTC planned to improve its training program curriculum to provide training to low-

skilled, displaced, and unemployed adult workers (WTC Director, personal

communication; May 2015, January 2016). In the effort to ensure that economic growth

and stability return to southern Virginia, it was deemed to be desirable for the workforce development centers throughout this region to meet with local businesses and employers to discuss needed skills, and then train individuals for those jobs (WTC Director, personal communication; May 2015, January 2016). Accordingly, it was intended that these new skills foci will prepare displaced and unemployed workers for 21st Century employment. Duru-Nnebue (2012), however, questioned whether community colleges possess needed resources to align certificate-based curricula properly with the requirements of local businesses. The purpose of this study, therefore, was to provide a research resource to determine the skills needs of employees of the local employers.

Evidence of the Problem from the Professional Literature

Evidence of the problem at the local level, as reflected in the governor's call-to-action, parallels similar problems were being discussed in the professional literature. The literature indicates a high unemployment rate and weakening of the labor market after the recession of 2007-2009 (Anderson, 2015; Farber, 2011; Itkin & Salmon, 2011; Magsamen-Conrad et al., 2016; Torraco, 2016; U.S. Department of Labor, 2011). The weakening of the labor market in rural Southern America caused many individuals who lost jobs due to economic globalization, outsourcing of employment, and technological innovation to be without adequate skills to re-enter the job market (Holzer, 2015; Russell, 2011; Rycroft-Malone et al., 2015; Torraco, 2016). Evidence from workforce training literature suggested that adult workers will need additional training and skills to meet the demands of a fast-paced, technology-driven, and ever-shrinking economy (Holzer, 2015; Russell, 2011; Rycroft-Malone et al., 2015; Torraco, 2016). With continued transitions in

our economy, coupled with a society that relies ever more heavily on technology, WTCs must work collectively with employers to discuss new skill sets and knowledge needed by adults to contribute in meaningful ways (Alexander & Goldberg, 2011; Jacobson, 2016; Office of the Governor, 2014a).

Thomas (2014) highlighted the need for community colleges and WTCs to partner with businesses to align skills and credentials for meeting the needs of businesses and industry in the region. The governor called this initiative *The New Virginia Economy* because rural and southern Virginia needed to be overhauled for inclusion in the broader economy and market (Holzer, 2015; Office of the Governor, 2014b). Offering training through workforce development centers to the rural and southern communities would better prepare low-skilled, displaced, and unemployed workers in finding and keeping meaningful jobs (Alexander & Goldberg, 2011; Benbow & Hora, 2016; Jacobson, 2016).

Duru-Nnebue (2012) conducted a study to help education institutions ensure the workforce training programs students are completing have the required and expected outcomes. Duru-Nnebue's research advanced the field of study; yet, identified a gap needed for exploring local workforce training programs from the perspective of employers and program partners to align local needs and curricula. This study addressed the research gap identified by Duru-Nnebue as I provided answers to questions about 21st-century jobs in the local region, the difference between current job skills certificate training being offered by the WTC, and the local area's employers' needs.

Definitions

The following key terms are important to this research topic:

Displaced worker: A displaced worker, also called a dislocated worker, is a person who has lost a job as a result of a company closing, downsizing, relocating, or outsourcing to a foreign country (Blustein et al., 2013; Griswold & Ellis, 2012; Itkin & Salmon, (2011).

Hard skills: Hard skills, also referred to as technical skills, are specific, teachable abilities such as working with equipment, software, data, and job training. These skills are transferrable from one employment to another (Laker & Powell, 2011; Pellegrino & Hilton, 2012; Vijayalakshmi, 2016).

Low-skilled worker: A low-skilled worker, as operationalized for this study, is an individual who lack adequate skills to conduct tasks in the workplace because of their education level, or background training (Sanders, Oomens, Blonk, & Hazelzet, 2011; Weedon & Tett, 2013)

Interpersonal skills: Interpersonal skills comprise the ability to get along with others and work as a team while getting the job done. These skills include personal communication and listening, displaying the right attitude, and goal-directed behavior while working (Kyllonen, 2013; Salas, Bedwell, & Fiore, 2011; Vijayalakshmi, 2016).

Intrapersonal skills: Intrapersonal skills include learned talents and abilities within every individual that facilitates a good relationship with self (Kyllonen, 2013; Nelson & Low, 2011). Persons with these skills demonstrate they can handle new and rapidly changing conditions on the job. Intrapersonal skills are attributes of behavior such as playfulness, self-discipline, and the ability to deal with and overcome distractions

through stress management (Hoyle & Davisson, 2011; National Research Council, 2012; Nelson & Low, 2011; Williams, Robertson, Kieth, & Deal, 2014).

Soft skills: Learned personal qualities, characteristics, or attributes that facilitate success (Laker & Powell, 2011; Mitchell, Skinner, & White, 2010; Pellegrino & Hilton, 2012; Vijayalakshmi, 2016).

Unemployed worker: An unemployed worker is an individual who lost a job as a result of insufficient work, or their position was relocated or eliminated entirely (Blustein et al., 2013; Griswold & Ellis, 2012; Itkin & Salmon, 2011).

Workforce development centers (WDC): Workforce development programs are housed at community colleges to enhance skill development for low-skilled, unemployed, and displaced workers (Bragg, Dresser, & Smith, 2012; Choy & Delahaye, 2011).

Workforce training program (WTP): A workforce training program provided to improve and expand workforce training skills to help displaced and unemployed workers gain essential job skills (Blustein et al., 2013; Bowman, 2014).

Significance

A goal of this qualitative project study was to validate and align a WTC's workforce certificate programs with the needs of regional employers. The unemployment rate soared from 1997 to 2003, with 1.5 million rural workers losing jobs (Benbow & Hora, 2016; Bureau of Labor Statistics, 2015a, 2015b; Glasmeier & Salant, 2006; Itkin & Salmon, 2011). The layoff trend continued and worsened during the recession of 2007 to 2009 when even more workers lost their jobs (Athreya et al., 2014; Itkin & Salmon, 2011; Wandner & Eberts, 2014). Also, the continuation of the displacement for low-

skilled workers was predicted, making it even more difficult for long-term displaced and unemployed adults to obtain suitable work (Office of the Governor, 2014a; Scully-Russ, 2013; Scully-Russ, Rose, & Glowacki-Dudka, 2013). Hence, there was a call for local businesses, organizations, companies, and communities to work together to offer updated vocational, social, critical thinking, and high-tech workforce training programs (Bevins, Carter, Jones, Moye, & Ritz, 2012; Depken & Gaggl, 2016; Wagner, 2013). Adult educators cannot afford to overlook the ranks of low-skilled workers in the design of these new education initiatives. Aligning workforce training programs with local business needs serve to improve the livelihood, social well-being, and employment status for low-skilled, unemployed, and displaced workers, even in rural areas (Benbow & Hora, 2016; Cooney, 2011; Griswold & Ellis, 2012; Hees et al., 2012).

With the changing workplace and workforce in rural America, many adult workers have found or concluded their jobs were not as secure as they once thought and are now required to learn new skills and new information (UNESCO, 2015). Businesses and employers desire employees with higher levels of technical expertise to run basic computer equipment such as connecting and disconnecting to printers, accessing the Internet, and conducting conference calls (Hayes, 2013; Torraco & Tuliao, 2014). It is important for WTCs to partner with businesses and employers to provide every opportunity for low-skilled, displaced, and unemployed workers to learn, grow, and adapt as productive workers capable of handling the demands and changes of the workplace (Choy & Delahaye, 2011; Mahmud, Parvez, Hilton, Kabir, & Wahid, 2014; McMahon &

Horning, 2013; Merriam, Caffarella, & Baumgartner, 2007). It may also be necessary for WTCs to provide on-the-job technical training for businesses and company employees.

In summary, the exploration of employer needs, combined with a systematic effort to align WTC curricula to meet those needs, would benefit many people. Workers and their families would benefit from more stable employment. Employers would benefit from lower employee turnover. The WTC would benefit from increased mission effectiveness. Finally, the state would benefit by having fewer people on subsistence programs and through a stronger economy bolstered by stronger employment figures.

Guiding/Research Question

This qualitative research study was conducted to see if the WTC was preparing low-skilled, unemployed, and displaced workers with employment proficiencies and technical skills to compete in today's local market. There is a need for workforce development, continuing education centers, and WTCs to partner with employers to align skills development with the needs of a knowledge and service economy (Mitchell et al., 2010; Office of the Governor, 2014a). Partnering with businesses, industries, and employers may ultimately improve jobs, careers, and quality of life for workers in the area of interest for this study. The overarching question that guided this study aims to explore and understand the needs of businesses and employers, and whether the partnering WTC was aligning its certificate and training programs to fulfill those needs. The following research questions guided this study:

Research Question 1: What skills do employers identify as substantive employability skills when hiring low-skilled employees?

Research Question 2: What skills, abilities, and knowledge are espoused by the region's employers as necessary for success for this population of employees?

Research Question 3: How well do the training and certification programs provided by the WTC align with the needs of the region's employers?

<div align="center">**Review of the Literature**</div>

Conceptual Framework

Conceptual frameworks are important in qualitative research designs because they lay the foundation for theoretical connection, alignment, and integration of the critical aspects of the study. According to Ravitch and Riggan (2016), essential elements that drive alignment and integration from conceptual frameworks include the structure of the research questions, the review of the literature, the data collection and data analysis plans, and even the genre or approach of the design itself. When researchers do not develop a conceptual framework for their qualitative studies, they run the risk of "leaving the research under-conceptualized and methodologically hazy" (Ravitch & Riggan, 2016, p. 26). Explaining the importance of conceptual frameworks, Ravitch and Riggan expounded further that,

> For us, a conceptual framework is an argument about why the topic one wishes to study matters, and why the means proposed to study it are appropriate and rigorous. …By *appropriate and rigorous*, we mean that a conceptual framework should argue convincingly that: (a) the research questions are an outgrowth of the argument for relevance; (b) the research design maps onto the study goals, questions, and context(s); (c) the data to be collected provide the research with the

raw material needed to explore the research questions; and (d) the analytic

approach allows the researcher(s) to effectively address (if not always answer)

those questions. (pp. 28-29)

Figure 1 is provided as an illustration of the conceptual framework for this study. The

discussion that follows explains how the framework supports the study based on the

rigorous and appropriate criteria suggested by Ravitch and Riggan.
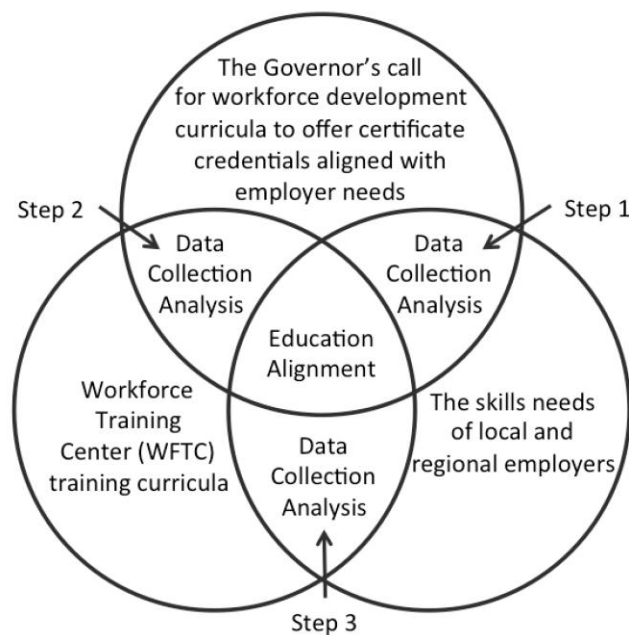
Figure 1. The conceptual framework of the study.

The three major elements of the conceptual framework (see Figure 1) include (a)

the Governor's call to action to align training certificate programs with the needs of

employers, (b) the employee skills needs as stated by employers, and (c) the curricula

offered by WTCs. The center of the Venn diagram, where all three elements overlap,

education alignment, is the goal of this study. As called for by the Governor, education

alignment will occur when WTC's offer certificate training programs that support the

stated skills needs of employers. The three research questions dealing with (a) employer skills needs (RQ1 and RQ2) and (b) the degree to which current certificate programs support current employer needs (RQ3) correspond to the conceptual framework's Step 1, Step 2, and Step 3, respectively, for data collection and analyses. The data collection and analysis plan is explained in the methodology section, Section 2, of this study.

Transformational Learning as a Grounding Theory

Mezirow's transformational learning theory shapes and grounds my goals for this study. Transformational learning, or transformative as the term is sometimes referred to, is about substantive change (Merriam et al., 2007). It is about the "fundamental change in the way individuals" perceive self and the world they live in (Merriam et al., p. 130). Mezirow defined transformational learning "as the process of using prior interpretation to construe a new or a revised interpretation of the meaning of one's experience in order to guide future action" (Mezirow as cited in Merriam et al., p. 132). His belief was as adults get older and mature, their life experiences compelled them to develop an understanding of worldviews and the differences between particular events and phenomena that can be increasingly comprehensive and discriminate (Mezirow as cited in Merriam et al., p. 132). This concept provides the need for adult learners to construct knowledge by reflecting on part of their experiences to make a personally meaningful change.

Transformational learning induces a change in the way adults picture the world and himself or herself within it; it is learning beyond understanding that includes the application of learned concepts in new or unique ways (Kasworm & Bowles, 2012; Rappel, 2015). For instance, adult workers may know Internet basics and even have

experience with search engines, like Google. Whether the same individual possesses the skills needed to apply that knowledge to solve work-related problems, however, requires a higher-level integration of their skills that transforms them into more responsible, more efficient employees. Transformational learning scaffolds upon and extends or expanded what is already known (James, 2012; Merriam et al., 2007). The knowledge does not contradict what adults already know but rather adds to what they have already learned (Merriam et al., 2007). In essence, transformational learning increases the achievement of knowledge and skills that help develop self-confidence that leads to transformed lives. A goal for conducting this study, therefore, was to assist the partnering WTC in becoming more transformational in its work with students.

Review of the Broader Problem

The review of literature examined how other workforce training agencies and similar institutions were called to align, upgrade, and improve their curricula to meet the needs of individuals living in their area and the demands of businesses and employers located in their area (U.S. Department of Education, 2015; U.S. Department of Labor, 2015). In keeping with the changing workforce and economy, the state of Florida created and implemented a customized employment system called Discovery (Smith, Dillahunt-Aspillaga, & Kenney, 2015). This program focused on best practices to improve its employment services, support, and access for individuals with disabilities (Smith et al., 2015). The program was also effective because it focused on aligning new skill sets sought by employers with training that would develop those skills.

Additional research reported the state of Massachusetts and its stakeholders partnered to connect manufacturing curriculum and competencies with college and career readiness in which the author called a new era in alignment (Jackson, 2015; Prins & Clymer, 2018). Massachusetts' goal was to promote advanced manufacturing as an industry while creating career pathway opportunities for individuals living in the region (Jackson, 2015; Prins & Clymer, 2018). To keep in tune with technological changes and industry credentialing it is necessary to align education and workforce curricula to produce individuals with new and valuable skills for the changing industrial economy (Eldridge, 2017; Elkins, Bell, Hartgrove, & Pardue, 2016; Gonzalez et al., 2015).

My review of literature was guided initially by the focus of aligning WTC curricula with local business needs, as well as the Governor's call for WTCs, workforce development efforts, and continuing education centers at community colleges to partner with employers to discuss and identify skill sets needed for economic development in southern Virginia. The literature review was extended by utilizing published educational and peer-reviewed articles from journals, dissertations, and articles from the Walden University Library and Google Scholar. Within the Walden University Library, ProQuest, ERIC, SAGE, and EBSCO host databases were used to find literature dealing with workforce development and the needs of businesses and employers. My search terms included *low-skilled workers, displaced adult workers, unemployed workers, 21st Century Skills, employment skills, employer-desired skills, academic skills, soft skills, interpersonal skills, intrapersonal skills, workforce development, workforce education*, and *workplace skills*. The literature review that follows focuses on the challenge of

aligning workforce education with business, employer, and industry needs. Furthermore, the literature review includes a review of soft-skills and hard-skills that low-skilled, displaced, and unemployed workers need to be successful employees in today's employment environments.

The Challenge of Employment in Shifting Economies

The adverse consequences of job loss during the last economic recession, which was accompanied by an outsourcing movement of U.S. jobs to overseas locations, were unusually severe and lingering in the rural southeastern U.S. Individuals with years invested in a job or career that experienced job loss at the height of the recession found it particularly painful. In Borbely's (2011) report on displaced workers, data were shared on the number and characteristics of individuals age 20 and over who lost jobs. Borbely categorized the characteristics of employees by gender, age, education, industry, occupation, and earnings. Findings revealed displaced workers who experienced a job loss or left their jobs after three or more years because of poor labor market conditions. Likewise, Evangelist and Christman's (2013) study found that the longer workers were unemployed, the more damaging unemployment was to the economy. The study also claimed that at the current rate of job creation, it would be 2019 before the labor market is indeed restored (Evangelist & Christman, 2013; National Skills Coalition, 2014; Roberts, Povich, & Mather, 2013; U.S. Department of Labor, 2011, 2015). In shifting economies, job loss among low-skilled workers leads to the need to retrain for new jobs.

Research findings revealed that unemployed workers would need employability skills to re-enter today's job market. The key to producing the 21st-century workforce is

to train new employees (Bevins et al., 2012; Bharti, 2014; Leavitt, 2011). Similarly, to retain qualified workers, they too must be trained with the skills essential to competing in the new job market (Bevins et al., 2012; Brynjolfsson & McAfee, 2014). To conduct relevant training; therefore, research must be done to determine employer needs for 21st-century jobs. Significant also is the need to examine curricula that purport to prepare and certify students to fill those jobs.

The communication explosion, the age of information, computerization, and the industrial revolution brought new kinds of jobs and new applications of learning. Adults started returning to school for various reasons, including professional needs (Bharti, 2014; Lyons, Ng, & Schweitzer, 2014). Understanding the context of adults going back to school is essential to providing them with quality learning experiences (Bohonos, 2014; Brynjolfsson & McAfee, 2014; Stein, Wanstreet, & Trinko, 2011). With these trends, many nonprofessional positions, career switchers, displaced workers, those afraid of being replaced, and those capable of advancement within the organizations saw going back to school as a chance to improve their skill sets (Bohonos, 2014; Department of Labor, 2014a, 2014b). Understanding employer needs and adapting knowledge and skills training to meet the needs of a changing workforce, therefore, is vital to growing economies wherein adult workers can progress and be productive (Borbely, 2011; Lyons, et al., 2014; Stein et al., 2011). For adult workers, attending WTCs can provide the opportunity for them to enhance learning and skills training to meet the challenges of 21st-century workplaces.

The activity of providing relevant workforce training should be a mandate for all WTCs (Harmon & Ridley, 2014; Marrone, 2016). Aligning skills development curricula with the actual needs of employers, however, may be less obvious. Scully-Russ et al. (2013) asserted that job training, workforce development programs and credentialing, and career certification programs help prepare workers for emerging jobs and long-term career opportunities. For low-skilled, displaced, and unemployed adults living in rural areas, providing advanced training will boost adult success and promote sustainability in the workforce (Chopra, 2016; Cooney, 2011; McMahon & Horning, 2013). The following sections present relevant literature on basic skills for employment success.

Academic Skills

Basic academic skills remain the foundation of learning and are essential in the workplace. A study by the National Research Council (2012) reported that businesses and leaders are asking education institutions to instruct in more problem-solving, critical thinking, communication, collaboration, and self-management skills. These skills are termed 21st-century skills, new necessary skills, higher-order thinking, or college and career readiness skills, and labeled as such to include cognitive and non-cognitive skills by numerous researchers (Hoyle & Davisson, 2011; National Research Council, 2012; Rosenberg, Heimler, & Morote, 2012). While Voogt, Erstad, Dede, and Mishra (2013) referred to these skills as 21st-century competencies, the authors also included the academic skills of reading, writing, science, and math as 21st-century competencies adult students will need to be successful in workers in our current and future labor force.

The Program for the International Assessment of Adult Competencies (PIAAC) conducted a quantitative study that assessed and compared the basic skills and competencies of adults around the world (Goodman, Finnegan, Mohadjer, Krenzke, & Hogan, 2013; Wu, 2014). The study focused on the cognitive and workplace skills needed for success in the 21st-century and the global economy (Goodman et al., 2013; Martin & Smith, 2011). The findings indicated that reading skills for the workplace are necessary to read directions and instructions. Reading skills are required to read letters, memos, and emails. Newspapers, magazines, and newsletters require reading skills. Reading publications, manuals, bills, financial statements, and other daily materials require reading skills (Goodman et al., 2013; Martin & Smith, 2011; Mishra & Kereluik, 2011; Voogt & Pareja Roblin, 2012). Numeracy skills for the workplace are necessary to calculate prices, costs, and budgets. Numeracy skills are required to calculate fractions, decimals, or percentages. Individuals who use advanced math or statistics such as calculus, complex algebra, and trigonometry techniques also utilize numeracy skills (Goodman et al., 2013; Griffin, Care, & McGaw, 2012; Martin & Smith, 2011; Partnership for 21st Century Skills, 2007).

Information and Communications Technology (ICT) skills for the workplace are necessary to send and retrieve emails and to surf the Internet for work-related issues (Bharti, 2014; Brynjolfsson & McAfee, 2014; Redecker & Johannessen, 2013). Individuals also use ICT skills for computer programming or to write computer code, and participate in instant messaging or Internet discussions (Davis, Eickelmann, & Zaka, 2013; Goodman et al., 2013; Redecker & Johannessen, 2013). As the workplace increases

the use of computers, working individuals need to improve their ICT skills to be prepared

for success in answering the demands of a computerized workforce.

Technical Skills

The literature provides evidence that employers need workers with a broad range

of information technology skills for the 21st-Century. As the economy shifts from an

industrial-based economy to an economy that is driven by information, knowledge, and

technological innovation education and training in computer use becomes increasingly

important (Bowman, 2014; El Mansour & Dean, 2016; Githens, Sauer, Crawford,

Cumberland, & Wilson, 2014). Bowman (2014) reported that over three-quarters of all

jobs in America would require workers to possess some level of computing or

technological skills. Also, Wagner (2013) conveyed that new skill sets will need workers

to seek additional training to upgrade their basic skills. Industry leaders, educators, and

local community leaders must come together to provide solutions and create learning

opportunities for them to meet the demands and needs of the workforce (Bowman, 2014;

El Mansour & Dean, 2016; Githens et al., 2014; Wagner, 2013). We live in a world that

relies on computers for communication. Hence, businesses and employers need workers

who are competent in using computing, and employees who possess technical skills.

Producing a 21st-century workforce requires higher education to revise

curriculums to ensure students are offered training and degrees to prepare them to live in

a world of technological change (Bharti, 2014; Henson & Kamal, 2010; Law, Yuen, &

Fox, 2011; Mahmud et al., 2014). Changes in curricula must show concern for

information technology and computer-related technologies (Brynjolfsson & McAfee,

2014; Henson & Kamal, 2010; Miliszewska, Venables, & Tan, 2010; U.S. Department of Education, 2012). Businesses and employers need skilled employees who are creative and innovative in using information and knowledge through the use of ICT skills (El Mansour & Dean, 2016; Kampylis, Bocconi, & Punie, 2012; Redecker & Johannessen, 2013). Barrera (2013) also agreed that businesses and organizations need employees with updated knowledge and skills because the information technology age has transformed the world, and it has redefined the role of individuals in the workforce. Hence, the focus for a 21st-century workforce is a culture of learning enabled by technologies in which students get trained to make changes, try new ideas and approaches to problem-solving (Barrera, 2013; Lyons et al., 2014; Thomas & Brown, 2011). WTCs must partner with local businesses and employers to provide training for updating knowledge and skills in technology.

Postsecondary education is the doorway to the right jobs for low-skilled, displaced, and unemployed adult workers, and for reinforcing the economic competitiveness of the Southeast region. Training and education that lead to industry-valued credentials for careers in the 21st century can facilitate employment for many adult workers who are unemployed or underemployed (Gordon, 2011; Ku, 2014). Offering industry certification programs will also aid in preparing workers for emerging jobs and long-term career opportunities (Davies, Fidler, & Gorbis, 2011; Scully-Russ et al., 2013). For low-skilled, displaced, and unemployed adults living in rural areas, providing relevant training would boost adult success and promote sustainability in the workforce (Benbow & Hora, 2016; Bharti, 2014; Bragg et al., 2012; Slack, 2014).

Improving and expanding WTC curricula can help workers develop the skills they need to become lifelong learners who can adapt to a changing society.

Soft Skills

In today's information society and office-based economy, businesses and employers want employees with soft skills, too. A survey conducted by the National Association of Colleges and Employers (NACE, 2011), indicated businesses need employees with people skills, for instance, ability to work as a team, with oral communication, can make decisions and solve problems, can obtain and process information, and able to plan, organize and prioritize work (Kivunja, 2015; Robles, 2012). All of these skills promote a positive attitude, effective communication, respectful interaction, as well as the ability to stay calm in stressful situations (Kivunja, 2015; Rosenberg et al., 2012; Voogt, & Pareja Roblin, 2012). Soft skills also include interpersonal attributes that characterize a person's relationship with others (Klaus, 2010; Levasseur, 2013; Robles, 2012; Vijayalakshmi, 2016). Soft skills are needed for living and working productively and harmoniously in society.

While most workforce training programs focus on the development of technical and hard skills, fewer programs focus on personally meaningful development related to skills. Mitchell et al., (2010) discussed the value of soft skills in the workplace as well as the need for employers to provide training opportunities for their workers who would benefit from the development of those skills. Two research studies, Mitchell et al., (2010) and Helyer and Lee (2012), independently confirmed that employers value soft skill aptitudes such as teamwork skills, communication skills, leadership skills, and other

personal skills. These attributes, combined with workforce experience, remain essential to employers and for 21st Century employment. Likewise, Weedon and Tett (2013) and Ku (2014) agreed that soft skills are essential to businesses in this knowledge-based and information age society. Further, the literature reviewed from *A Framework for 21st Century Learning* reported that skills of critical thinking, collaboration, communication, and creativity would be essential for workers in the new technological and global economy (Partnership for 21st Century Skills, 2011). These skills are required to be successful on the job and are essential for happiness in everyday life.

  Interpersonal skills. Interpersonal skills like communication, collaboration, responsibility, ability to manage people, and conflict resolution are critical professional abilities and skills for the workplace and beyond (Kivunja, 2014a, 2014b; Klimplová, 2012). Demonstrating these skills will require low-skilled, displaced, and unemployed workers to be able to express important information to others, to interpret others' verbal and nonverbal messages accurately, and the ability to respond appropriately (Kyllonen, 2013; Salas et al., 2011). Employees, who display the potential to take a moment to reflect and think without bias about a disagreement with another person, can increase office morale and productivity while reducing negative workplace behavior (Durlak, Dymnicki, Taylor, Weissberg, & Schellinger, 2011). Research showed communication skills, a positive attitude, the ability to adapt to change, and teamwork to be valuable traits for success in the workforce (Williams et al., 2014). To meet the demands of the workforce, training centers must work collaboratively with business and industry to build a skilled, knowledge-based labor force for the 21st Century (Bragg et al., 2012; Carter,

2011; Leavitt, 2011). In today's and tomorrow's workforces, interpersonal skills will be necessary for individuals to communicate and interact effectively with others.

Intrapersonal skills. Intrapersonal skills are an individual's feelings, thoughts, and emotions. These skills are situated in the mind of individuals and are not readily noticeable to others. Resourcefulness, goal setting, taking the initiative, self-development, and critical thinking are intrapersonal skills and are also categorized as soft skills (Vijayalakshmi, 2016). Individuals with strong intrapersonal skills find it easier to make good choices, show good understanding, communicate effectively, and healthily cope with change (Vijayalakshmi, 2016). These are desirable personal traits employers seek when hiring employees. Intellect, knowledge, willingness, and the ability to learn and continue learning are all personal attributes needed to be successful in the ever-changing workplace (Lindqvist & Vestman, 2011; Williams et al., 2014). Employers' desire workers, who can be flexible, take the initiative, value diversity, and the ability to reflect on one's learning and make adjustments accordingly (Salas et al., 2011). For these reasons, employees who can demonstrate the ability to manage one's behavior and emotions to achieve one's goals are vital to the success of the worker and the employer (Hoyle & Davisson, 2011; Segal, 2012). These personal qualities are 21st-century employability traits and are necessary for employee success at all levels of employment (Kyllonen, 2013; Richardson, Abraham, & Bond, 2012). Employees who are capable of controlling emotions and behaviors in the workplace add value to their employers.

Other soft skills. Time management, active listening and mental attuning, humor, motivation, and determination are additional soft skills for successful employment (Cann,

Watson, & Bridgewater, 2014; Kyllonen, 2013). In today's information world, Cann et al. (2014) and Wolvin (2012) agree that specific soft skills like humor and listening play important roles in individual success in the 21st-century workplace. For instance, displaying a sense of humor can help develop relationships at work, aid in dealing with work-related stress, and even enhances creativity in problem-solving (Doosje, de Goede, van Doornen, & Goldstein, 2010). Likewise, now active listening is recognized as a critical skill and fundamental to learning. The research revealed listening as one of the most valuable skills in professional and corporate settings, and say communication as the common denominator in the human experience; communication skills are life skills (Kivunja, 2014a; Kivunja, 2014b; Wolvin, 2012). Since soft skills are essential workplace skills, it may well be that employers will also emphasize the need for training in those areas (Kivunja, 2015). Once more, other soft skills are valuable skills, and employers need and want employees with these skills.

Implications

Based on the findings of this project study, possible directions are to improve local employment by providing skilled workers to fill businesses and employers' existing and future workforce needs. The findings would further add to existing research on developing education and training programs at WTCs and Workforce Development and Continuing Education Centers. This study's results recommend improving employment opportunities for low-skilled, displaced, and unemployed adults looking to re-enter the job market. Additionally, the findings can serve to help workforce training stakeholders set priorities to inform policymakers of workplace shortcomings, and to effect positive

social change so everyone entering or already in the workforce can have access to

resources they need to become lifelong learners. From the research proposal, project

possibilities for this study included a policy paper for the WTC that would include

curriculum recommendations, or professional development training for WTC staff and

faculty to perfect service excellence and teaching skills. Based on the data collection and

analysis, a white paper project was developed (see Appendix A).

Summary

The research problem extended from the need to explore the alignment of the

WTC program curricula and the needs of businesses to see if the programs offered by the

WTC align with and address business needs. The focus was on preparing low-skilled,

unemployed, and displaced workers with appropriate workplace proficiencies, academic,

technical, and soft skills to compete in today's market. The Governor called for

workforce development and continuing education centers and WTCs to partner with local

businesses and employers to discuss and identify the necessary knowledge and skill sets

for employment. A goal of this study was to facilitate the Governor's call-to-action for at

least one WTC, its clients, and the regional employers it serves.

My review of the literature confirmed that unemployed workers would need

employability skills to re-enter today's job market. Skills such as critical thinking,

collaboration, communication, and creativity, including computer skills, are essential for

workers in the new technological and global economy. Interpersonal and intrapersonal

skills are additional necessary skills for the 21st century. In today's information world,

time management, listening, attendance, and workplace socialization are other soft skills
necessary for workplace success.

Section 1 provides a list of terms and definitions for understanding the qualitative
case study. The significance of this qualitative case study and guiding questions for
conducting research was also presented. I discuss the research design, including the
methodology, the data collection instruments and analysis procedure, and ethical
protection for participants in Section 2.

Section 2: The Methodology

Introduction

Qualitative and quantitative research designs are two methodologies used to collect, analyze, and interpret data (Creswell, 2012). Researchers use qualitative designs to explore and understand a phenomenon and quantitative research to test or develop a theory by examining the relationship between variables (Creswell, 2012). Qualitative data collection is performed through interviews, observations, surveys, and document analysis (Lodico, Spaulding, & Voegtle, 2010). Conversely, quantitative data collection is conducted using pre-established or researcher-developed instruments to measure the variables in a tabular format (Lodico et al., 2010). Qualitative research designs are appropriate when the researcher desires to clarify or obtain a basic understanding of challenges or phenomena using exploratory data collection and analysis techniques (Creswell, 2012). I chose the qualitative research approach because I am interested in exploring the needs of local businesses and employers, and then using the resulting themes to determine whether the WTC is aligning its training program curricula for low skilled, displaced, and unemployed workers to meet those employer needs. My qualitative design for this study is described next.

Qualitative Research Design and Approach

The research methodology for this study is a qualitative research design using a case study approach. A case study, according to Merriam (2009), "is an in-depth description and analysis of a bounded system" (p. 40) that provides the opportunity for the researcher to understand the phenomenon or issue being explored (Creswell, 2012).

The rationale for using this type of inquiry is the process allowed me to conduct a thorough examination of the data collected from the perspective of different businesses in the rural environment, and to better understand employer needs and how those needs may be addressed by adult educators in this setting (Creswell, 2012). Based on the purpose of this study, as well as the combined guidance of Creswell (2012) and Merriam (2009), a qualitative design using a case study approach was most appropriate for this project study.

Other qualitative designs considered for this research included grounded theory, ethnography, and phenomenology (Creswell, 2012; Creswell & Poth, 2017). Pursuing a grounded theory design, I could examine some individuals whom all have experienced being unemployed and use the analysis results to develop a theory that would help explain and improve their condition (Creswell, 2012). However, the purpose of the project study I was interested in pursuing was more practical; to explore and understand the needs of businesses and employers, and whether the WTC is aligning its certificate programs to answer those needs. I am less interested in developing a theory; therefore, the grounded theory design would not be the best fit for this study. Similarly, an ethnography design could be used to investigate a group of individuals who live and work in rural settings to ascertain information on the particular human society and culture (Creswell, 2012; Merriam, 2009). While this study focusses on localities in rural Southern Virginia, the results, findings, implications, and recommendations for future practice may be useful in other parts of the United States. Many societies and cultures

will be included as I work with businesses, employers, and adult education service providers to explore and better understand the research problem within the region.

Finally, phenomenology could fit this study as well because the research would bring attention to displaced and unemployed workers "lived experience, life-world, their everyday life, and social action" (Merriam, 2009, p. 24). Because I was also interested in understanding the problem from the viewpoint of businesses and employers, the phenomenology approach was not the best fit. Based on the purpose of this study and my intended participant population, the case study method, again, seemed most appropriate because it would help me to directly address my overarching and individual research questions.

<div align="center">**Participants**</div>

Criteria for Selecting Participants

The criteria for selecting human resource directors, managers, and supervisors of local businesses and employers require the participant to be (a) currently employed in their respective positions for six months or more and (b) experience hiring employees. The local workforce training director has more than two years of experience in training low-skilled, displaced, and unemployed workers for re-entry into the workforce and job market. Establishing selection criteria helped me choose appropriate, eligible participants for this case study. I used the Chamber of Commerce member listing to obtain the name, address, telephone number, and email information for each of the candidate business and employer participants. Perry (2007) used a similar process for identifying and gaining access to study participants. The specific process I used for gaining access to business

and employer participants is described below under the subheading, "Gaining Access to Participants."

Purposeful sampling was used for this study. The population of interest was comprised of human resource directors, managers, and supervisors of local businesses and employers, and the local workforce training site director. The rationale for purposeful sampling was to select participants who provided relevant information that answered the study's research questions (Creswell, 2012). The (participants) human resources directors, managers, and supervisors were individuals selected from fast food services, grocery stores, restaurant management, retail and sales, health care, manufacturing, and construction industries in the Southern Virginia community. As Creswell (2012) pointed out, researchers purposefully select individuals or sites to gain insight and to understand the central phenomenon better. Moreover, using purposeful sampling gave me the chance to explore, gain insight, and understand the needs of businesses and whether the WTC is aligning its certificate and training programs to answer the needs of the businesses and employers in the region.

Justification for Number of Participants

The sample participants from the population included two participants selected to represent each of the aforementioned industries. The 14 sample participants were part of or served in the capacity as human resource directors, managers, and supervisors who were responsible for hiring employees to meet the demands of the business. There was one workforce training site director who was responsible for training workers with the skill-sets to meet the needs of local businesses and employers in the Southern Virginia

community. Choosing a small sample size allowed for a more detailed analysis and reporting, whereas using a large sample size could result in superficial perspectives (Creswell, 2012). Unlike quantitative researchers, according to Glesne (2011), qualitative researchers do not seek large sample sizes to make generalizations. The qualitative researcher's goal is to understand the phenomenon and to gain insight from the participants' perspective, rather than make generalizations to a broad population (Lodico et al., 2010; Merriam, 2009). Therefore, working with a smaller sample size increased my understanding of the phenomenon while acquiring and collecting information from the participants that answered the specific research questions.

Gaining Access to Participants

To gain access to research participants and sites, qualitative researchers must obtain approvals and permissions. The procedure for gaining access consisted of four steps including (a) obtain approval from committee chair and member, (b) provide a description of my project to the University Research Reviewer (URR) for approval, (c) get approval and permission from Walden's Institutional Review Board (IRB), and (d) design an informed consent form. After gaining approval for the study, I made contact with appropriate points of contact of businesses listed as members of the local Chamber of Commerce. The purpose of the initial contact was to introduce myself, my research topic, and to solicit participation in the study.

A letter of invitation with consent form was sent to the human resource directors, managers, and supervisors of candidate business and employer participants asking for their participation in the study and explaining the background information, the purpose

and procedures of the study, voluntary nature of the study, risks and benefits of being in the study, any payment, privacy or confidentiality of the study, and contact and question information. This information was collected and will be retained for five years after completion of the study.

I met with the WTC's specialist to discuss using that site as a research partner. The specialist's working title is Employment Specialist, Case Manager, and Business Services Director for the Virginia Workforce Center. The WTC is one of several WTCs in the region that is responsible for matching individuals with the right skills to the right jobs, training unemployed workers for new employment, recruiting veterans, offer on-the-job training to businesses, and offer to customize services to meet the needs of local businesses and employers (Employment Specialist, Case Manager, & Business Services Director, Personal Communication, April 2016). A letter of invitation with consent form was sent to the WTC Director asking for participation in the study and explaining the background information, the purpose and procedures of the study, voluntary nature of the study, risks and benefits of being in the study, any payment, privacy or confidentiality of the study, and contact and question information. This information, too, is to be retained securely for five years after completion of the study.

Establish Researcher-Participant Working Relationship

To establish researcher–participant working relationships, gain support, and build trust, I used five best practices methods that included (a) I obtained permission from the human resource directors, managers, and supervisors from each business and employer, as well as obtain informed consent from all research participants, (b) I stated the purpose

and reason for conducting the study, any possible risks involved for participating, as well as advise participants it is their right to withdraw from this study at any time, (c) I explained my role as the researcher and interviewer and their role as the participant, (d) I asked for permission to audio record the interview sessions, and (e) all participants were reminded that the information collected is confidential, as well as the steps I have taken to protect their identification and the information they provide. This information was provided as part of the participants' consent form and again verbally during the face-to-face interview sessions.

Ethical Protection of Participants

The protection of participants' confidentiality is relevant to their lives and experiences, and I followed the procedures outlined by Creswell (2012). On May 15, 2017, I renewed my National Institute of Health's (NIH) Certificate for the protection of human subjects in research. I applied for and received approval from Walden's IRB before conducting any data collection activities. Participants were informed they were participating in a study and the reason for the study. Participants were told and reminded their participation was voluntary, their names and employment would remain anonymous, and any identifying factors were confidential. Participants were assured that confidentiality is a priority, and any data gathered would not be connected to them in any way. Each participant was expected to sign a consent form before taking part in the study. To emphasize the importance of keeping their information confidential, participants were informed that Walden's Institutional Review Board (IRB) approval process was designed

to ensure researchers comply with the ethical standards for conducting research, as well as federal regulations and guidelines.

Data Collection

Describe and Justify Data for Collection

Data collection for this project study was pursued primarily using individual, open-ended interviews. I selected 14 participants with two individuals representing each local fast food service, grocery store, restaurant management, retail and sales, health care, manufacturing, and construction industries because they are responsible for hiring individuals, and have experience and knowledge in employment practices. These participants served in the capacity of human resource director, manager, owner, or supervisor for the local industry. The workforce training site director was selected because the director is responsible for implementing training programs that train low-skilled, displaced, and unemployed workers with the required and necessary skill set to be employed in the local region.

Using face-to-face open-ended interviews demonstrates a two-way conversation is taking place between the researcher and the participant to gain more information about the phenomenon of interest (Cachia & Millward, 2011; Creswell, 2012; Merriam, 2009). The face-to-face interview plan with specific interview questions is provided in Appendix B, and the workforce training site director interview questions are provided in Appendix C.

Data Collection Instrument

In qualitative research, the data collection instrument is the researcher (Creswell, 2012). I was the sole data collector and used the local Chamber of Commerce to select business participants. The interview protocol was specific semistructured open-ended questions for the employers regarding employability skills individuals needed to obtain employment with the company. These interview questions provided answers to RQ1 and RQ2. If necessary, a document review of the WTC training curriculum and program certificates were used to answer RQ3. There were no historical or legal documents used as sources of data for this study.

I used an interview protocol and an audio recording device to collect the data. As I proceeded through the interview protocol, I asked each participant if it was okay to record the interview and then set up the audio recording device. The recorded information was immediately transcribed to ensure accuracy (Bogdan & Biklen, 2007; Creswell, 2012). After the data had been transcribed and analyzed, I scheduled follow-up interviews with all participants for member checking. Member checking was used to ensure recorded information was transcribed accurately.

All raw data (handwritten notes, interview protocols, and consent forms) are kept in file folders with each participant's name on the folder and locked in a file cabinet. All digital data from the data analysis software is on two password-protected jump drives and stored in a fire-proof lockbox that is locked in the file cabinet. Likewise, the audio recording device with the interviewees' information is locked in a lockbox and also locked in the file cabinet. The secure location for housing the physical data (data and

transcripts) is stored in a locked file cabinet in my home. I am the only individual with access to the data. The data will remain protected for five years as specified by the requirements of Walden University. Then, after 5-years, the data will be destroyed.

The Role of the Researcher

My role as the researcher is to protect the confidentiality and safety of all participants' identities. My obligation as a researcher is to ensure reliable sources are used, and the data are collected, analyzed, and interpreted in an ethical manner (Bogdan & Biklen, 2007; Creswell, 2012; Lodico et al., 2010). Any personal experiences, beliefs, attitudes, and cultural views were set aside as I strived to maintain an open mind to reduce bias. As indicated by Marshall and Rossman (2011), qualitative researchers can be too sensitive in their social identities when conducting a study.

I have over 20 years of professional workplace and teaching experience. However, as an instructor, my past professional experience and relationship with students did not require me to collect and analyze data but did require me to present information that was generated from the system used to input grades. This information was then forwarded to the education department to be analyzed. As Kennedy-Lewis (2012) pointed out, practitioner-scholars better understand the complexities of work and education and are able to solve problems within the local setting. I have no personal connection or relationship with the participants. I did not identify any bias issues that would adversely affect the project study before, during, or after data collection and analysis.

Data Analysis

Creswell (2015) discussed several qualitative computer software available to assist researchers in analyzing and interpreting qualitative data. I used ATLAS.ti 8 data analysis software for this study. ATLAS.ti software can store and organize text, graphics, audio, and visual data files (Creswell, 2015). Further, this software is capable of providing coded data sheets with established themes, patterns, and categories as well as connecting selected passages, and retrieving and browsing data segments and notes related to my research. Additionally, ATLAS.ti 8 offers training, tutorials, and technical support for novice researchers.

In qualitative research, data are collected by the researcher, who prepares them to be analyzed. When the data collection and organization processes have been completed, it is time to analyze the data. According to Creswell (2015), examining the data involves getting a feel for the data, the coding description, and themes surrounding the central phenomenon. Analyzing and decoding qualitative data brings order and understanding of the data that helped qualitative researchers answer the research questions. For a novice researcher, coding data by hand can be a challenging task; therefore, I utilized qualitative computerized software to assist with finding common terms, themes, and patterns used by the participants from their interview responses. Before I began the analysis process, all of the responses to the interview questions had been transcribed using the tape recorder and typing the participants' responses verbatim in a MS Word document. Then, I read through the transcriptions to become acquainted with the participants' responses. As I repeatedly read through the responses, I focused on similar words, phrases, and patterns

from the participants' responses to the interview questions, all while referring to my handwritten field notes. The data were analyzed until saturation was reached, a point at which no new themes were revealed, and only existing themes were repeated (Creswell, 2015). After I analyzed the data and generated themes based on the collected data from the local employers, I turned my attention to the WTC director's interview questions and the WTC curricula.

The same steps for coding and analyzing the collected data from the local employers were used for coding and analyzing the WTC information. I used the qualitative computerized data analysis software to find common terms and themes, to establish patterns from the director's responses to the interview questions. Before I began the analysis process, the responses to the interview questions had been transcribed using the tape recorder and typing the participants' responses verbatim in a MS Word document. I proceeded with reading through the data to become familiar with the information. Then, I reread the responses focusing on similar words, phrases, and patterns from the director's responses to the interview questions and my handwritten field notes. Next, I analyzed the WTC curricula looking for similar words and phrases to the interview questions related to workforce training and education. After developing an understanding of the WTC curricula based on the qualitative analysis, one that included an interview with the WTC director, I used ATLAS.ti 8 data analysis software to assist with developing insights, concepts, or gaps to confirm the demand from businesses and employers for specific training and certificate programs in the local area. As stated by Yin (2014), novice researchers should start an analytic strategy and search for patterns,

themes, and similar words and phrases. Thus, using a qualitative software program for organizing, sorting, and categorizing helped me to write a rich narrative report.

Evidence of Quality, Accuracy, and Credibility of Findings

Member checking was applied to reinforce the quality, accuracy, and credibility of the findings from the participants' responses to decide whether the themes accurately reflected the participants' views (Markle, Olivera-Aguilar, Jackson, Noeth, & Robbins, 2013). Sharing the findings with participants clarified questions after the interview and recommended new ideas, as well as warn the researcher of any possible problems (Glesne, 2011; Marshall & Rossman, 2011). Triangulating the data ensures the investigator's findings and interpretations are accurate. When confirmation of themes is obtained from multiple participants, triangulation occurs and adds to the validity of the findings. When seemingly opposing views on similar topics arise in qualitative research, then the possibility of discrepant cases must be investigated.

Dealing with Discrepant Cases

Discrepant cases might appear where contradictory data are collected from different participants on the same topics, and where participants may well contradict themselves in their responses to similar questions. Discrepant information almost always occurs during the interview process (Creswell, 2012). Because I used qualitative data analysis software, I was prepared to discuss any contradictory themes that were found with all study participants. The information was not ignored or eliminated but somewhat reconciled with participants. If the discrepant information was realized during the interview, then I brought the participant's attention back to the contradictory information

immediately to gain clarity. If the discrepant information was not realized until the data analysis process, then I made a note to ask for clarifying information during my member checking interviews. This process allowed me to acquire a clearer understanding of the phenomenon studied, helped ensure the scope of my data collection and analyses were adequate for my topic, and provided more credibility and validity to my research findings.

During the initial gathering of participants, I experienced several challenges with securing business industry participants. I had scheduled to meet with one participant only to learn that the person was on vacation. The interview was rescheduled. I attributed this challenge to the time of year rather than lack of interest. Summertime is when many people take vacations and spend additional time with their families. Another challenge was the healthcare participant responded that he did not open the email attachment because he was concerned about computer viruses. The two manufacturing participants did not respond, and a restaurant participant could not find the time to be interviewed. Therefore, out of the 14 business industry participants, only 11 participants were interviewed.

Delimits and Limitations

As with all qualitative research, this study was delimited to a small geographic area and was not readily generalizable to other locations. The process, however, can be repeated and applied to any field where there is interest in aligning business and employer needs with local educational service providers. A potential limitation of this research project study is that some businesses and employers that were chosen may not

aspire to participate in the study at the last minute. In that case, the researcher will go with the businesses and employers who are genuinely interested and cooperative. The data to be collected for this study was limited to a small number of participants. While a larger sample may have the potential to increase the generalizability of the results, generalizations do not apply to all WTCs because of different business needs based on their locations, different funding and regulatory requirements, or different reporting requirements.

<div align="center">

Data Analysis Results

</div>

Data Generation, Gathering and Recording

Creswell (2012) outlined the necessary steps for performing qualitative data analysis on audio recorded interview data. In the first step, the researcher prepares and organizes the data for analysis. Deciding whether to analyze the data by hand or by using specialized computer software is an early decision that must be made. At first, I was going to use a qualitative computerized data analysis program for my data analysis but decided to manually analyze my data because I was working with a small sample of participants who responded directly to the interview questions. Manually analyzing qualitative data involves transcribing the interview recordings, supplemented by field notes, and reading through the interview transcripts line-by-line several times to get a general feel for the information collected (Maxwell, 2013). Thus, the manual process had the benefit of allowing me to interact with the transcribed data in a more personally meaningful way.

A standard procedure in qualitative data analysis is to color code the transcripts to distinguish patterns, constructs, and themes. Qualitative analysis requires the researcher to look for data patterns, or descriptive words or phrases of interest then categorize or label details of interest for interpretation (Miles, Huberman, & Saldaña, 2014; Patton, 2015). As stated by Creswell (2012), coding involves examining each transcript line-by-line and then clarifying the meaning of what the participant was saying related to the unpacked themes. Assigning the text or phrase, coded as a pattern, construct, or theme, is repeated until no new themes can be discovered. Once no new themes can be unpacked, then data saturation has occurred, and the researcher moves into the data interpretation and reporting phase of the study.

The process to generate and gather data were from face-to-face interviews with 14 participants from seven business industry categories, and a WTC director. The two manufacturing participants did not respond, and a restaurant participant could not find the time to be interviewed. Therefore, out of the 14 business industry participants, only 11 participants were interviewed. I asked each of the business/employer participants a series of semistructured, open-ended interview questions provided in Appendix B. The data were recorded using an audiotape recorder then transcribing the participant responses verbatim. Once I completed transcribing the information, I conducted member checking by having each participant to review the transcribed information for errors, clarification, or to provide additional information (Miles et al., 2014). Next, I matched the research questions with the responses from the participants' interview questions. I did the same

with the Workforce Training Director interview transcript. In all cases, the transcripts were revised based on feedback received through the member checks.

Data Alignment with Research Questions

I explored the needs of local businesses and employers, and whether the WTC had aligned its certificate programs and courses to meet those needs. The participants were selected because they had experience hiring employees with the skills and abilities necessary for employment that answered the study's research questions. The three research questions that expounded upon the problem were:

Research Question 1: What skills do employers identify as substantive employability skills when hiring low-skilled employees?

Research Question 2: What skills, abilities, and knowledge are espoused by the region's employers as necessary for success for this population of employees?

Research Question 3: How well do the training and certification programs provided by the WTC align with the needs of the region's employers?

Reflecting adequate alignment of the interview protocols with the research questions, it seemed that the business and employer participants' responses aligned well with the research questions. Following the interview protocol designed for this study, I asked the participants about needed skills, responses generally included communication skills, basic computer skills, being able to use a computer, speaking and listening, customer service, and people skills (see Table 1). I found the participants to be friendly, open, and gracious with their time. The WTC Director was also accommodating, enthusiastic, and generous with her time.

Findings Presented as Patterns, Relationships, and Themes

I manually transcribed the interview information by typing it into a MS Word table with three columns; the research question, the interview question, and the responses. This process is exemplified in Table 1. This procedure facilitated reading and rereading the responses relative to the research questions while writing notes about my reactions, as well as color-coding repetitive words and phrases. To keep track of which participant gave which responses, I assigned a multipart code representing each participant. The interview questions and responses with the business industries were coded with the name of the industry and the number (e.g., Construction P1 and Construction P2, Fast Food P1 and Fast Food P2, Grocery P1 and Grocery P2). The interview questions and responses with the WTC director were coded as WTC director.

Thematic data analysis was pursued to reveal patterns, relationships, and themes from the participants' responses. In the review of the interview protocol, interview questions 2-9 were written to answer RQ1, interview questions 11-15 were written to address RQ2, and interview questions 10, as well as 16-18, were written to address RQ3. The results of the research questions are discussed below.

Table 1

Research and Interview Questions and Participant's Responses

Research Question	Interview Question	Example Participant Response
What skills do employers identify as substantive employability skills when hiring low-skilled employees?	What skills and abilities do you seek when hiring?	It depends on the position. For cooks, we look for applicants with experience as grill operators and kitchen food prep.
What skills, abilities, and knowledge are espoused by the region's employers as necessary for success for this population of employees?	If soft skills are essential, please identify which one(s) are most important.	The ability to listen and respond with a positive attitude is the key to success in the quick-service industry.
How well do the training and certification programs provided by the WTC align with the needs of the region's employers?	Where and how do your employees receive their ongoing training?	Take courses, workshops seminars offered by the hospital.

Research Question 1: What skills do employers identify as substantive employability skills when hiring low-skilled employees?

The findings indicated that the employer participants viewed academic or basic skills such as reading, writing, speaking, listening, and math as substantive skills. Fast Food P2 stated that "The ability to read and follow directions and listen to instructions are essential skills for successful employment." Grocery P1 stated, "academic or basic skills such as reading, writing, and math are extremely important when interacting with

customers." Construction P1 and Construction P2 stated, " being able to read, write, follow directions, and use math calculations is essential because workers have to read blueprints and building plans, and use basic math for measuring floor and wall installation." Likewise, Retail Sales P1 shared that "the ability to speak and engage with customers is essential." Retail Sales P1 further stated, "employees must be able to make suggestions when selling items, know the credit card system, and be able to handle money." Based on these response examples, academic skills were unpacked and considered an important theme that employers looked for when making hiring decisions.

Employers also viewed technology or basic computing skills as very important when hiring, especially when hiring individuals for entry-level and full-time management positions, as cashiers, and as medical or lab technicians. As Healthcare P1 emphasized, "skill in using a computer is necessary because employees have to login to read emails, keep up with and check work schedules so they will not miss time from work or be late. Individuals who work in the medical field must be able to print off patient labels for different lab test requests, print off medical order sheets as well as print off doctors order sheets for different lab tests." As revealed by these responses, technology was an important skill emphasized by some employers, especially those who were hiring for entry-level and full-time management positions.

Additional responses disclosed that applicants with specific qualifications are essential, but it depends on the position. For example, Restaurant P1 looks for applicants with experience as cooks, grill operators, and kitchen food preparers. They also seek applicants who can follow directions, exhibit excellent communication, and demonstrate

good character and a positive demeanor. A degree is not required. Likewise, Healthcare

P1 "hires applicants who have been to phlebotomy school or have some medical training.

They also employ applicants with some technical school training or have gone through a

nine-month or 1-year program to be a lab technician." Restaurant P2 identified other

skills such as "the ability to handle multiple tasks, the ability to read and comprehend

directions, and the ability to listen to instructions when cooking as essential skills for

successful employment." Fast Food P1 indicated that listening and speaking were

essential because "drink people have to listen and pay attention, and multitask when

taking orders from the drive-thru." Similarly, Retail-Sales P1 indicated that "leadership,

the ability to handle money, can multitask, is self-motivated, and has or show initiative"

as essential skills for job success. These latter skills, in particular, may be classified as

soft skills (Charoensap-Kelly, Broussard, Lindsly, & Troy, 2016; Deng, Thomas, &

Trembach, 2014).

To better understand the participants' perceptions of skill requirements for their

respective businesses, I created a table to capture and organize key response words by

frequency of use. Table 2 is provided to show this information for all the participants for

RQ1; the substantive employability skills required for low-skilled employment in the

region. Based on the results presented in Table 2, I unpacked the substantive

employability themes as most relevant for each industry. The substantive employability

themes results for RQ1 are presented in Table 3.

Table 2

Word Use Frequency by Participant for Substantive Employability Skills.

Keyword	Number of uses	Uses per participant
Reading	5	Fast Food P2, Grocery P1, Restaurant P2, Construction P1, Construction P2
Writing	3	Grocery P1, Construction P1, Construction P2
Speaking	2	Retail Sales P1, Fast Food P1
Listening	3	Fast Food P2, Restaurant P2, Fast Food P1
Math	2	Construction P1, Construction P2
Computer basics/basic computing	3	Healthcare P1, Construction P1, Construction P2
Technical training or program	3	Healthcare P1, Construction P1, Construction P2
Following directions	4	Restaurant P1, Restaurant P2, Construction P1, Construction P2
Exhibit good communication	3	Restaurant P1, Construction P1, Construction P2
Leadership	1	Retail-Sales P1
Count/Handle money	2	Retail Sales P1, Grocery P1
Multi-tasking	2	Fast Food P1, Retail Sales P1
Be self-motivated, show self initiative	1	Retail Sales P1

Table 3

Substantive Employability Themes by Industry

Theme	Business/industry	Uses per participant
Basic academic	Fast Food, Grocery, Construction, Retail-Sales	Fast Food P1, Grocery P1, Construction P1 & P2, Retail-Sales P1
Technical/Special	Construction, Fast Food, Healthcare, Retail-Sales	Construction P2, Fast Food P2, Healthcare P1, Retail-Sales P2
Soft	Fast Food, Grocery, Restaurant, Retail-Sales	Fast Food P2, Grocery P2, Restaurant P1 & P2, Retail-Sales P1 & P2
Communication	Construction, Fast Food, Grocery, Healthcare, Restaurant, Retail-Sales	Construction P1 & P2, Fast Food P1 & P2, Grocery P1 & P2, Healthcare P1, Restaurant P1 & P2, Retail-Sales P1 & P2

Research Question 2: What skills, abilities, and knowledge are espoused by the region's employers as necessary for success for this population of employees?

The data analysis for RQ2 again revealed that all three classes of skills (academic, specialized or technical, and soft) were essential when hiring low-skilled employees. The participants reported that the three classes of skills were important for daily job function and played an important role when interacting with people and dealing with clients, co-workers, and supervisors. While the interview results affirmed that the three classes of skills are important for a successful career and are necessary on a daily basis, they also reported that specialized skills for each position are taught once an applicant is hired. The

post-hire training of specialized skills is dependent upon industry and position within the industry.

Doing the interview session with each industry participant, I asked them to rate the relative importance of academic skills (reading, writing, and arithmetic), technical (specialized) skills, and soft skills (people/personal responsibility skills) when hiring new employees. Five of the 11 participants voiced academic skills as extremely important when hiring new employees. Two of the 11 participants stated that technical or specialized skills are critical skills when hiring employees. Also, two out of the 11 participants said soft skills are somewhat important when hiring, and two participants stated all three classes of skills are of equal importance when hiring.

Next, I asked each industry participant to rate the three classes of skills (academic, technical/specialized, and soft) by relative importance for a successful career in their industry. Fast Food P1 stated, "academic skills are extremely important when taking customers' orders, then people skills and last is specialized or technical skills." Similarly, Fast Food P2 stated, "academic skills are needed in order to learn specialized skills." Restaurant P1 said that "academic skills are needed in order to wait on and service customers." Construction P1 and Retail-Sales P2 mentioned that "academic skills are important when dealing with people, employees, or customers." Also, two of the 11 participants stated, "technical or specialized skills as very important when hiring employees because technical skills are necessary to perform a specific job or set of tasks or when cashing customers out or ringing up customers' items." Then two of the 11 participants stated, "soft skills as somewhat important since soft skills are the character of

an employee which is evaluated at the time of the interview." Two of the 11 participants even indicated that all three classes of skills are equal in importance when hiring new employees. As the healthcare industry stated, "employees who work in this field have to be very careful when dealing with patients to ensure patients are safe, they have the correct medical forms, and administer correct medication dosage so as not to make a mistake." Similarly, with the retail-sales industry that stated, "all the skills are necessary to carry out duties and responsibilities daily."

Then I asked each industry participant of the three academic skills, which is most important and why? Six of the 11 participants said of the three academic skills, "reading is the most important academic skill for a successful career." Construction P1 and Construction P2 stated, "reading is most important because construction workers or carpenters have to be able to read blueprints, building plans, permits, instructions, and directions when building." Fast Food P2 identified "reading as the most important skill. If you can read, you can learn to do anything." Grocery P1 indicated that "reading is the most important academic skill because it is fundamental to functioning in today's society and is vital in finding a good job." While Grocery P2 expressed, reading is most important "when dealing with customers or consumers because an employee might have to read labels for them or help them find a particular item." Restaurant P1 emphasized that "reading is the most important skill because waiters or waitresses have to read the menu and prices when serving customers." Other participants stated that all three of the academic skills are of equal importance. Fast Food P1 said, "all three academic skills are of equal importance." Healthcare P1 responded with "all three academic skills are of

equal importance; can't do one or have one without the other." Retail-Sales P1 said, "all the three academic skills are equally important and necessary on a daily basis, but reading is more important because being able to use computers to find products located at another store requires the associate to read." Even Retail-Sales P2 said, "all the academic skills are important when hiring new employees" and further added, "I need workers with good customer skills to speak and talk and workers who know what to do when waiting on customers." The last participant, Restaurant P2, stated, that "math and technical or computer skills are important when ringing up customers' orders or cashing customers out." The participants' who deal with customers on a daily basis indicated that reading is most valuable because it is used every day by all individuals and is a part of life.

I also asked each industry participant if technical skills are important. Please identify what specific technical skills are important and why. Two of the 11 participants indicated that specific skills for a position could be taught once an applicant is hired. For instance, Construction P2 stated that "technical skills are important to perform a specific job or set of tasks like operating a hydraulic drill or saw or sketching or outlining a drawing." Retail-Sales P2 also conveyed that technical skills are important when cashing customers out, opening credit card account, dealing with coupons, and other private label items. Healthcare P1 affirmed that the ability to use computers and printers is important because all medical data, forms, and information are computerized. The restaurant, retail, and fast food industry participants each shared that specialized or technical skills specific to each crew position are equally important to provide the best customer service and to

operate the cash register. So, it appears that possessing technical skills is vital to being successful in a job since we live in a technological world.

Next, I asked each industry participant if soft skills are important please identify which one(s) are most important. Six of the 11 participants rated soft skills as somewhat important; however, communication, which is an important soft skill, is the ability to communicate through the spoken and written word and is a necessity in nearly every workplace. The participants added that "soft skills are the character of an employee and is evaluated at the time of the interview." In the retail sales industry, employers want employees with good customer skills such as verbal communication and workers who know what they are doing. The majority of employers and businesses seek employees with good customer skills such as being patient, pleasant, dependable, understanding, flexible; have a positive attitude, can multi-task, and the ability to get along with others.

Additionally, working in the fast food industry requires individuals to be able to verbally communicate or exchange information clearly and audibly when dealing with people. As Fast Food P2, a well-known quick-serve restaurant stated, "the ability to listen and respond with a positive attitude is the key to success in the quick-service industry." Similarly, participants from the Restaurant industry stressed that "communication skills are most important when listening, taking orders, and responding with a positive attitude to the customer." The participant in the Healthcare industry also regards "communication skills like speaking, being pleasant, and able to put the patient at ease as valuable." Grocery P2 stated, "soft skills are essential when listening to customers and helping them find items---speaking and talking." Retail-Sales P1 imparted, "all soft skills are equally

important for daily job function." At the same time, Retail-Sales P2 conveyed, "communication–like listening, speaking; multi-tasking; offering another item in place of an item don't have—doing some selling." Individuals possessing these qualities or skills are needed in order for the workplace to operate smoothly and efficiently.

Research Question 3: How well do the training and certification programs provided by the WTC align with the needs of the region's employers?

   Training and certificate programs. My data analyses for RQ3 indicated that not all employers utilize the training and certification programs provided by the WTC. During the industry interviews, I asked each industry participant how do their employees receive ongoing training. The findings indicated that individuals who work in fast foods, groceries, restaurants, and the retail-sales industry receive their training from the lead worker, supervisor, or assistant manager. Fast Food P1 said, their employees receive training from the lead worker or assistant manager. Fast Food P2 stated, "employees must complete We-Learn videos and quizzes to succeed in performing their jobs to the franchise or business standards." Grocery P1 and P2 said, "cashiers receive training from the lead cashier or front-end manager. The managers take online training and learning through a store/company program." Restaurant P1 said, their "cooks receive training from the head or lead cook in the kitchen." Whereas Restaurant P2 replied, "our cooks if they are interested, can get into a training program to be head chef." Restaurant P2 also expressed that "years ago individuals would start off as dishwashers, then move to cook and so on with no real formal training." Retail-Sales P1 said, "workers receive training on the job and computer base, plus by manager on duty."

I also asked each industry participant whether they used the local WTC as one resource to recruit or hire individuals. If so, I asked if they felt that the WTC adequately prepared individuals to work in their business? The findings revealed that seven of the 11 participants had not used the WTC as a resource to recruit or hire individuals. However, Retail-Sales P2 stated they utilize the "WTC for hiring purposes when their applicants' pool is small or they do not have many eligible applicants applying from their website, and for additional training or for hiring employees with certain skills that are needed." Construction P1 and P2 stated the "WTC does a great job with training and preparing workers for employment." As a result, all the industry participants stated they would hire graduates from the local WTC, and those who do not use WTC services said they would consider employing graduates from the local WTC too.

Employee hiring process. Then I asked the industry participants how does your company hires employees? What method(s) do you use? In response to this interview question, six industry participants advertise in the local and surrounding newspapers. Construction P1 and P2 stated, "normally, we advertise in the local and surrounding newspaper with interested individuals submitting a resume." Similarly, Grocery P1 and P2 "advertise in the local newspaper, put up a help wanted sign on the door as customers enter, and also use the company website when advertising for cashiers and in-store departmental managers." Even Healthcare P1 shared, "We advertise in the newspaper, but use the website mostly. Human resources collect the applications and contact the applicants." Restaurant P2 also used the "newspaper and placed a help wanted sign on the door."

Also, four industry participants used online or company websites, placed a help wanted sign in the window that read hiring or now hiring, and used open job interviews. Open job interviews are "interviews for employment where companies accept job applications during a range of times when all applicants who are interested in applying can attend. The company conducts on-the-spot-interview rather than scheduling individual interview appointments with candidates" (Doyle, 2018). Fast Food P1 stated, "we have open job interviews daily each week from 8–11 & 2–5; people have to pick up an application fill it out, then come in and talk with the Manager or the Assistant Manager." Fast Food P2 responded with "applicants apply online using Snag a Job onboarding, which includes an assessment test. The assessment scores are coded green, yellow, or red. It also tests the character of the applicant and rates the ability to train the applicant." Retail-Sales P1 stated, "applicants apply online by filling out an application and submitting it." The comments made by Retail-Sales P2 were "we conduct internal hiring and use the company website, but use the WTC when we don't have an eligible pool of applicants." Retail-Sales P2 further explained we hire students who are 18-25 and individuals who are 30-50 plus that is looking for a 2nd job."

Next, I asked the industry participants if you do not currently consider graduates from the local WTC for employment at your company, please share any thoughts or ideas about anything the WTC could add or do differently to better prepare graduates for employment in your business. The data revealed that not all the industry participants were familiar with or used the WTC. Construction P1 said, "the company uses WTC to hire certified or skilled workers when an employee retires or resigns from the company."

However, several of the participants shared, "the WTC does a great job training employees to work for the company with computer skills." Restaurant P1 stated, "the WTC could consider providing some soft skill training to possible workers." The fast-food and grocery industry said they have "never used and are not familiar with the WTC, but would consider hiring individuals who have graduated from the center." As a result, the participant shared they would hire graduates from the local WTC, and those who do not use WTC services said they would consider employing graduates from the local WTC, now that they knew about this resource.

Essential skills to be successful. Under the three classes of skills there were word and phrase patterns such as reading, writing, speaking, listening, math computations, computer basics, technical training, following directions, providing good customer service, exhibit good communication, show good character, have positive demeanor, leadership, count or handle money, multitasking, be self-motivated and show self-initiative. The themes that emerged were academic or basic skills, technical or specialized skills, soft skills, and communication skills. Although these patterns are interconnected, they are separate and distinct categories (Maxwell, 2013).

Overall, employers or businesses expect employees to have some knowledge of basic computer skills because computers are used in every aspect of job employment. Technology or computer skills are used for everything from accessing the Internet, creating emails, using word processing, and any of the other Microsoft Office skills. Employers or businesses expect good communication skills where their employees articulate information to the customers and offer assistance when needed. Employers or

businesses expect their employees to demonstrate sound work ethics, such as being

pleasant, courteous, and helpful to customers. Employers or businesses want their

workers to show knowledge of basic skills such as reading, writing, and speaking when

dealing with individuals.

Programs offered by WTC. The next participant I interviewed was the WTC

Director. The WTC Director was asked to share how the training and certification

programs provided align with the needs of the region's employers. She responded, "when

there is a demand for certified specialists or persons in a particular job, the WTC provides

that training." The WTC works closely with local businesses and employers, community

colleges to offer or provide the necessary training to prepare those individuals for

employment. To illustrate, "a power plant located to the area and was in need of certified

trained powerline workers, so the Workforce Service Board informed the WTC who

collaborated with the power facility to create and establish the necessary training."

Then I asked the Director if she would share the kinds of skills training and

certification programs the WTC currently offers. "We offer welding, truck driving, power

line worker, nurse aid, medication aid, phlebotomy, medical coding and billing, register

nursing, licensed practical nursing, massage therapy, IT. Most programs are based on the

area or location of the business or employer and what jobs employers or businesses deem

necessary would be in demand at that time." For instance, "if there is a demand for

nursing and medical staff, then that's what the WTC would cater toward." The director

further added, "it depends on the job demand from the employer or business in the area as

well. Like right now, WTC don't assist with human services or business administrative

services jobs or positions. However, if an employer is coming to the area and has a demand for these positions, they send a letter to the WTC Services Board to get approval for them (the employer) to get that additional training."

Next, I asked the Director to share the primary sources for the curricular and who suggests or mandates which training and certificate programs the WTC offers. She responded with the "Workforce Service Board lets the WTC know what programs that are approved through our workforce center. They do that in collaboration with the actual facilities and the institutions, but of course, they do have to sign a mutual agreement, and then they have to apply for each program. Like the different colleges, they have to apply for truck driving, welding even if it's one unit they have to apply each year and have it approved by the board as deemed necessary."

Job training. Then, I asked, is there a demand from employers and businesses for specific training and certificate programs to be offered? The Director shared that "some employers or businesses let WTC know they have employees or workers without any experience. So the WTC works with the business to provide on-the-job training at the business location to train the workers." She further indicated, "Some individuals don't realize how good and efficient they are with a computer but don't have the proper computer training or know-how for the business, then that's when the WTC will provide that computer training to the employee for that employer." Therefore, "whatever employers or businesses need, WTC will cater to them as well as to the individuals seeking help or training for employment."

Communicating with businesses. The WTC Director explained the communication process between the WTC and the community. She said, "The WTC works with the employers and also have a business service team. Once or twice a month, each county business service team meets. Sometimes the employers come to the WTC to conduct a screening process. Let's say the employers want WTC to conduct a background check because they don't have time. WTC does the background check, which alleviates the employee from going to the employer. Therefore, we assist our employers or businesses with the screening process; they just let us know what qualifications they are looking for. From there, we match the employee with the best-suited employer, which is a win-win for everyone. We want the employee to be happy in their field and love doing what they are doing, and we want the employer to be happy with the employee because they are qualified to do what they are looking for, and everyone wins. This is a win-win situation where everybody is working together for the same cause."

After explaining how WTC communicates with the community, I asked if she would describe the basic design or structure of the training and certificate programs. She started by saying, "the basic design or structure varies, depends on training or program." Case in point, "a couple of years ago Service Board came up with something called the non-credit program wherein individuals can receive training be back to work faster. Non-credit means financial aid will not pay for it. However, with financial aid, the individual must have three credit hours in order to receive financial aid funding. Case in point, the non-credit program for nurse aid and medication aid may take 7-weeks of training, which includes classroom and clinical training after which the individual can go back to work

versus a credited program where the person has to attend a semester or two semesters in order to get the training. This is less time for the individual to be out of work. It also helps those who want to work while they are in school. Some of the classes may be offered in the afternoon and some in the morning. If the person works in the morning, they may be able to take the afternoon class. WTC tries to cater to the working individuals with low income so they can get that additional education they may need for that promotion at work or for another trade. The longest non-credit program WTC has is the power lineman and welding, which is a 13 weeks program. The power lineman is beneficial where the individual gets certification as a power lineman, including their CDL license. The individual is certified by OSHA, becomes certified as a Flagman, and becomes certified in CPR. They graduate with a toolbox full of certifications. If they say I really don't want to work on the power line right now, they can branch out and do something else."

Specialized training programs. Then I asked the WTC Director to give her perception of the impact of the workforce training and certificate programs on their clients' or participants' lives. She provided her perception from two viewpoints, professional and personal. First, she mentioned she never knew anything about the WTC and the programs it offers until she became an employee. "However, working and learning about the programs being offered, "it's a wonderful program." She further stated, "I encourage everyone if they can to attempt to take advantage of the programs whether they qualify or not because even though individuals don't qualify for the programs, there are so many other rich resources that will assist them." Case in point,

"there might be an individual that is wonderful and have the credentials, but they might

bomb an interview. That is where WTC comes into place to help with mock interviews,

provide positive critique on their dress attire, on the use of wording, and things of that

nature. This workforce training is beneficial for everyone, and most of them don't know

it." Second, she commented, "generally one receives employment because they know

someone or are a friend of a friend. They really do not go through the interview process.

Accordingly, if you don't have that inside connection, you need to know the proper

interview skills to get the job."

Then I asked are the participants' satisfied with the skills gained as a result of

your training program curriculum? She answered, "I have not had any participants or

individuals to really not be satisfied with the program and with us assisting them, and

they were able to move forward with providing for their households, they are very

appreciative. A lot of them say coming through this program has really allowed them to

do something they didn't think that they could do, and, generally, I do find that a lot of

this does occur with most of our dislocated individuals. Most of our dislocated

individuals come from employers that they have been with a long time, and that is all

they have ever known or done. These individuals have worked for the same employer and

thought they would retire. Then something occurred economically, which left them

displaced or unemployed. So now, they are older, more seasoned, and have to learn a new

skill. With that, they may not have basic computer skills, and now they are afraid to try

something new. In coming to the WTC, they get to talk about the things they like or do

not like. That is when the WTC will conduct an assessment of their likes or dislikes, which helps to place these individuals into different training programs."

Other training programs. I asked the director if WTC provides training for fast-food or quick-service restaurants. The director shared that:

WTC really don't offer training for fast-food or quick service or serve restaurant employment. But when these individuals come in looking for employment and want training in these fields, we try, or I try to encourage them to aim a little higher. However, if it comes to a point where the person has to do fast-food, then that's fine because they always have to start somewhere.

She further explained, "Everyone needs employment, and I'm not knocking fast food, but don't look for that to be a career, always aim higher, look to better oneself. Always aim for better, don't get comfortable in that one location."

I then asked the director if the WTC training and certificate programs improve the participants' chances for employment. Her response was:

I actually think they do simply because some of our participants after going through the training, a lot of the training, of course, requires extra work meaning you have to sit for your state exams and things of that nature so generally we (WTC) help to absorb the cost of the exam, but generally with them doing that most of them have found placement and employment even before taking the State exam. It's just that the employer is waiting for them to take the exam and pass. They are already potentially hired (clients or participants); they just need to take the exam and pass, of course, and once they do that, they start their employment.

We do have some of our employers who will work with our students where they

will hire them and have them start using their certificate of completion while they

are waiting for the testing date to take the test. Most of them are usually able to

work 120 days with just the certificate.

Customized training. Additionally, I asked the Director in what ways are your

training and certificate programs customized for various employers. She responded with:

I have a company called Paris Ceramics. It's a Ceramics and Marble Company

located locally and does a lot of exporting as well. We have placed many

individuals there for on-the-job training to help with the manufacturing of stones

and slates. This company is a "wonderful employer; they have worked really well

with us. WTC has placed 13 or 14 individuals there to work to get on-the-job

training. The company has done a wonderful job with the people. Some workers

have moved on to better things, and some are happy where they are so, they stay

with the company because they live right there in the surrounding area. Another

reason the workers stay with the company is the starting pay, and they get raises.

Therefore, it's wonderful for them because they are right in the area; they are not

wasting gas, wear and tear to their car. Again, it's close by if something went on

with their families. These workers are not going to move, so it's perfect for them.

Then I have the younger ones who move around a lot. Therefore, they may stay,

or they may not stay. In the end, these workers did wonderful jobs while they

were working with the company.

Working together to improve the community. The director further mentioned that the businesses and employers are wonderful to work with. She stated:

the employers work with the center and the center work with them. It makes a difference when an employer knows what they are seeking in an applicant and are able to verbalize these requirements in order for the center to fulfill their requests.

Last I asked what else would be useful to know about the workforce skills training and certificate programs. She went on to say:

as far as our certificate programs, a lot of individuals do not know about us and the programs we offer. We are still trying to get the word out there, of course." In addition, "we have developed a social media page, we are doing everything we can to advertise there, and to get the word out to let other businesses and employers know that we are here to assist them. Also, many of the clients or individuals don't realize they can do stackable to their credentials, which is receive all necessary training required in a certain program such as Nurse Aid or Truck Driving.

Dealing with Salient Data and Discrepant Cases

Discrepant cases in qualitative research are resentful when data from the same or different respondents, contradict patterns, or themes that emerge when identifying and analyzing data. According to Patton (1999), discrepant data are those identifiable words and phrases that do not fit within the scheme of the pattern; thus, calling for alternative explanations of why these cases do not fit the main patterns. Likewise, Maxwell (2013) attested that identifying and analyzing discrepancy is a key component to validating

qualitative research, and there are times when the data may or may not be persuasive. He

further stated that researchers should always examine both the supporting and the

discrepant data to decide whether to retain or modify the conclusion. Monitoring for these

kinds of data resulted in the identification of no discrepant cases to report. The verbatim

reporting of the participant responses increased the credibility and validity of the study

(Maxwell, 2013; Patton, 1999).

I experienced some challenges obtaining the initial participant pool. For example,

on several occasions, I had scheduled to meet with the participant only to learn that the

person was on vacation. So I rescheduled the interview. I attributed this challenge to the

time of year rather than lack of interest. Another challenge was the healthcare participant

who refused to open the email attachment due to a concern referencing computer viruses.

Finally, neither of the potential manufacturing participants responded, and a restaurant

participant could not find the time to be interviewed. The WTC Director participant did

not provide copies of certificates for individuals who completed training or certificate

programs through WTC due to confidentiality concerns because the names were on the

certificates. However, the WTC Director did provide several WTC related artifacts for

my review, in addition to her interview responses.

Evidence of Quality and Accuracy of Data

The steps I took to ensure quality, accuracy, and credibility included member

checking and triangulation. I conducted member checks with all the participants to

support the accuracy and reliability of their responses. Member checking is asking

"participants to judge the accuracy or credibility of the account" (Hancock, & Algozzine,

2011, p. 92) or "the accuracy of the descriptions, explanations, and interpretations"

(Miles et al., 2014, p. 58) of the data collected. I also used triangulation to validate the

accuracy of my findings. Triangulation involved using multiple data sources (interviews,

documents, observations, etc.) to corroborate or authenticate data (Miles et al., 2014).

This study used interviews with local business participants, face-to-face interviews with a

WTC Director, and documents obtained from the WTC, which discussed programs the

agency offered, to ensure the validity of the information provided.

Summary and Outcome of Analysis

In summary, this project study explored the needs of local businesses and

employers, and whether the WTC had aligned its certificate and skills training programs

to fulfill those needs. The research questions guiding the case study were: RQ1: What

skills do employers identify as substantive employability skills when hiring low-skilled

employees? RQ2: What skills, abilities, and knowledge are espoused by the region's

employers as necessary for success for this population of employees? RQ3: How well do

the training and certification programs provided by the WTC align with the needs of the

region's employers? The collected data were from interviews with participants who had

experience hiring employees with the skills and abilities necessary for employment that

answered the research questions. The findings showed that the business and employer

participants' and the WTC Director's responses aligned well with the research questions.

Further, the findings showed that the employer participants viewed basic skills

such as reading, writing, speaking, listening, and math as essential skills for employment.

They also viewed technology skills as very important when hiring individuals for entry-

level and full-time management positions, as cashiers, and as medical or lab technicians.

In sum, academic, technical, and soft skills are all important for daily job functioning and

play a vital role when interacting with people and dealing with customers, co-workers,

and supervisors. What is more, employers seek employees who can follow directions,

exhibit good communication skills, demonstrate good character, and a positive attitude

while offering good customer service assistance when needed.

Additionally, the findings disclosed that not all employer participants utilize the

skills training and certification programs provided by the WTC. However, they will

consider hiring individuals who have attended and graduated from the local center.

Likewise, the WTC does not offer skills training and programs related to the fast-food

and quick-serve restaurant service industry but will assist individuals looking for

employment with the mock interview process. Similarly, the WTC does not assist with

human services or business administrative services jobs or positions. It just depends on

the need of the employer coming into the area. However, when there is a demand for

skilled individuals or a need for certified individuals by an employer or a business, the

WTC will provide the training to the employee for the employer. Based on the findings of

this study, the best project deliverable was deemed to be a white paper with specific

strategy recommendations to improve collaboration between the WTC and local

employers.

Conclusion

In conclusion, Section 2 gave a detailed account of the methodology for this

project study. The purpose of the study was to explore the needs of local businesses and

employers and determine the extent to which the WTC has aligned its certificate and training programs for low-skilled, displaced, and unemployed workers to meet those needs. A case study approach was used based on the purpose. While other qualitative methods were considered, the case study was the best fit to answer this study's research questions because I was able to collect and examine data from the businesses and the WTC to see whether the WTCs training and certificate programs are meeting the business needs of the region. Section 2 also gives a detailed discussion of the research population and study sample. The population was comprised of participants from local businesses and employers and one WTC site. The sample consisted of 11 participants with two persons selected to represent the human resource directors, managers, and supervisors of each of the local industries that are responsible for hiring skilled individuals for their business, and one WTC director who provided trained and proficient workers to meet the demands of local businesses and employers. Additionally, Section 2 findings reflected the interview questions from the employer participants and the WTC Director aligned with the research questions. Answers to the interview questions showed the employer participants viewed academic or basic skills such as reading, writing, speaking, listening, and math as substantive skills. Technology or basic computing skills are also very important when hiring for positions. Similarly, soft skills are very important, too, especially when dealing with people and the public. However, not all employers use the services offered by the WTC. The WTC does not offer any training and programs for the fast food and quick-serve industry, nor assist with human services or business

administrative services jobs or positions. The project deliverable outcome for this study will be a white paper.

In Section 3, I explained the project study, which was a white paper report. The rationale for selecting this project genre will be discussed. A second scholarly literature review was provided, including the project description and evaluation plan, and the social change implications for rural Southern Virginia. The reflections and conclusions of the study were addressed in Section 4.

Section 3: The Project

Introduction

The project genre selected for this study is a white paper with several recommendations on aligning WTC curriculum with local business needs (see Appendix A). I will present the paper to the WTC Director and to each business and employer participant. In Section 3, I explain the project goals, the rationale for choosing the genre, and a second scholarly literature review related to the genre. Next, I discuss the description, the evaluation plan, the implications including social change, and the importance of the project to local stakeholders.

Description and Goals

The goals of this project study are to see whether the WTC is preparing low-skilled, unemployed, and displaced workers with employment proficiencies and technical skills to compete in today's market, and to offer recommendations to improve employment opportunities for the low skilled, displaced, and unemployed workers in the local area. Today's businesses and employers want and need employees with technical skills to operate computer equipment such as connecting and disconnecting to printers, accessing the Internet, and conducting conference calls (Torraco, 2016). Brynjolfsson and McAfee (2014) reported that for businesses to retain qualified workers, they need to be retrained with newer skills to compete in the new job market.

The alignment of the workforce training curricula requires programs to provide education to facilitate obtaining industry certifications, licenses, and credentials that will make the WTC worker students more employable. With the changing workplace and

workforce, businesses and employers need workers with the right skills (Torraco & Tuliao, 2014; UNESCO, 2015). Therefore, through this research study, I intend to address any 21st-century skills gap between the WTC education offerings and the local employer needs. Once I complete this doctoral project study, I will present it to the WTC Director and the business and employer participants as a policy recommendation report. The report will include background information of the problem, a summary of the data analysis and findings, evidence from research and literature, policy recommendations, and the conclusion.

Rationale

The selected project genre is a policy recommendation white paper. The rationale for choosing this genre was to provide several recommendations on how the WTC can improve its employment opportunities for low-skilled, displaced, and unemployed workers, and align the WTC training and certificate programs curriculum with the needs of the local businesses and employers in the region based on the findings reported in Section 2. The outcomes measured were whether the WTCs training and certificate programs have met the needs of the businesses in the region and whether local businesses and employers feel the WTC provided skilled workers to fill their current and future workforce needs. The WTC is one of several training centers in the region that is responsible for developing individuals with the right skills for the right job. The problem addressed through the content of the project disclosed that not all businesses and employers utilize the skills training and certificate programs that are available through the WTC. The WTC does not offer any training or programs for individuals working in retail

sales or the fast food and quick-service industry. What is more, the WTC does not assist businesses with any human services or administrative jobs or positions. For these reasons, I chose a white paper report to address these findings and to provide recommendations on how the WTC might expand its skills training and certificate programs to meet the needs of the businesses and employers in the region.

Review of the Literature

The review of the literature was conducted from the genre of writing a policy recommendation white paper. I utilized the Walden University online library database to search for keywords and phrases related to a *white paper, policy paper, policy recommendation paper*, and *writing a white paper*. I also searched for keywords and phrases about *future jobs, careers, occupations, automation, digitalization, information technology*, and *the industrial revolution,* as well as a combination of the keywords and terms. The publications used included Business Source, Education Research Complete, SAGE, EBSCOhost, ProQuest Central, and ERIC. The search produced peer-reviewed articles and reports from books, educational and business journals, and government reports related to the research topics. The published material was five years old. Saturation was reached once no new recent articles were revealed based on the keyword searches.

White Paper

A white paper report was selected for providing the WTC Director and business and employer participants data about my project study. According to Kantor (2010), the purpose of white papers is to educate and inform readers about existing problems and to

present solutions to the issues. Similarly, Pershing (2015) and OWL (2018) explained that white papers are a form of essay that uses information persuasively to recommend solutions to problems. Using white paper reports is an efficient and practical way to present recommendations for needed changes (Gould, 2016; Graham, 2015). At one time, the term white paper was used only to refer to official reports, indicating the information was informative and highly authoritative (Graham, 2015; OWL, 2018). However, today, white papers are used as an effective medium to inform, as well as to persuade an audience about a policy change through a policy recommendation or to support a position on a particular topic (Sakamuro, Stolley, & Hyde, 2015; YALSA, 2013).

White papers are used when the researcher wants to discuss a point or offer a solution to a problem (OWL, 2016; Sakamuro et al., 2015). As Kantor (2010) explained, the decision-makers who are the stakeholders appreciate white papers because they serve as an effective and fact-based medium. White papers can be in the form of a policy recommendation or a position paper. The names of these white papers are interchangeable when presenting information or opinion or providing a solution on a topic (Graham, 2015; Pershing, 2015). White papers serve as a method to present evidence and recommendations to stakeholders on policies and procedures (Graham, 2015; Pershing, 2015). Moreover, white papers are considered authoritative documents aimed to inform the reader on specific topics. The white paper report combines expert knowledge and research into a document that argues for a particular solution or recommendation, which allows the reader to understand an issue, solve a problem, or to decide what to do next.

White papers can serve to inform a variety of audiences. First, white papers can provide employees with information on company issues, concerns, solutions, or benefits related to the company. Second, white papers can be used by human resources personnel as an orientation medium to complement other information they provide to new hires. Lastly, white papers fill in the gaps in knowledge about different types of employees working in the company (Hoffman, 2016; Sakamuro et al., 2015). Thus, most policy papers are written in the form of a white paper not just for policy and politics, but also written in the business and technical fields (Graham, 2015; Hoffman, 2016).

How the Genre Addresses the Problem and Supports the Content

In reviewing the scholarly literature, the concern for the next few decades will be jobs and how to keep the existing ones while creating new ones. A cause for this concern is the speed at which technology is advancing, which could have an effect on businesses and decrease human capital in the production of goods and services (Choi, & Kang, 2019). The World Economic Forum (2016) estimated that by 2020 technology would produce approximately 2.1 million new jobs while at the same time lose about 7.1 million jobs. However, if the technological trend continues, it could lead to worker displacement, increased income inequality, and create permanent and unemployable workers (Kristal, & Cohen, 2015; Smith & Anderson, 2014). As Zhou and Tyers (2018) proclaimed, this job loss could affect developing countries because many of the outsourced manufacturing and service jobs could be among the first to be automated. Thus, as we advance to an autonomous economy, managers and policymakers must develop effective strategies and

policies to extend job opportunities and cope with the real possibility of lasting

technological unemployment (Choi & Kang, 2019).

The current job market is competitive. Industries that once required entry-level

workers to have a high school diploma now need workers with specialized occupational

skills (Ziegler, 2015). Today, a skilled workforce is mandatory for growth in employment

and the economy. As more businesses and employers automate tasks and incorporate

artificial intelligence, the ability of workers to use these tools to manage these tasks is

becoming essential in the workplace (National Academies of Sciences, Engineering, &

Medicine, 2017; OECD, 2018). A recent report by *BizEd* stated that workers could no

longer expect to be employed at one or two firms for their entire careers, using the skills

they mastered in their 20s (Van Dam & Guidone, 2018). This means that WTCs, as well

as higher education institutions, must be ready to provide the required skills that will

ensure that tomorrow's workers are employable for as long as they can work (Van Dam &

Guidone, 2018). New skill requirements have emerged, thus shifting the structure of the

U.S. economy from an industrial economy to a post-industrial service economy

(Editorial, 2013). These skills are part of the employability skills, job readiness skills, as

well as the skills employees need and employers want (Harun, Salleh, Baharom, &

Memon, 2017; MacDermott & Ortiz, 2017; Nisha & Rajasekaran, 2018).

A report by the World Economic Forum (2017) described the changes in

technology, demographics, and businesses as the Fourth Industrial Revolution and

credited this movement with altering the skills needed for today's labor market (Hasan,

Wilkins, McShane, Arzaga, & Lachman, 2019). As digitalization, automation, robotics,

and artificial intelligence create opportunities for the economy, so do the many

challenges for the future of the workforce (Lyons, Zucchetti, Kass-Hanna, & Cobo,

2019). Only those companies that stay abreast of technological breakthroughs will

survive, and only those workers who want to remain competitive by re-educating

themselves will continue to find jobs (Van Dam & Guidone, 2018). The need for job

training is necessary if workers want to remain competitive in a knowledge-based,

automated society (Cummins, Yamashita, Millar, & Sahoo, 2019) and to ensure the labor

force have the skills and training needed to gain and keep employment (Ziegler, 2015).

Recent literature posits that aligning training with industry needs ensures the

availability of highly skilled, technically trained workers with industry-relevant

qualifications (Pima Association of Governments PAG, 2017). The literature review also

agreed that alignment and prioritization start with the identification of specific needs,

such as occupation-specific skills, apprenticeships, and worker re-entry programs (Eades

& Hughes, 2017; Snell, 2019). Adult workers attending WTCs are allowed the

opportunity to enhance their education and skills training to meet the tasks of the 21st-

century workplace. Thus, as job markets continue to expand and skills-set evolve,

improving the alignment between workforce initiatives and industry needs will continue

to be a priority (Van Dam & Guidone, 2018).

Future Workforce

As state economies continue to grow and put more people to work, finding skilled

labor is increasingly the most significant challenge facing many competitive American

businesses (Buckwalter & Togila, 2019). Research also indicates there is a revolution

occurring in the world of work where almost every job will be affected by globalization, technological progress, and demographic change (OECD, 2017; Tytler, Bridgstock, White, Mather, McCandless, & Grant-Iramu, 2019). The next few decades will witness a change to current jobs, the disappearance of some jobs entirely, and the creation of new jobs that do not yet exist (Tytler et al., 2019). Hence, the change is most noticeable in the fields of retail, entertainment, health care, manufacturing, and education as technology advances (Tytler et al., 2019). The forces pushing this revolution are automation, robotics, the Internet, climate change, globalization, and an aging and increasing population (OECD, 2017).

The forces shaping the future workforce are artificial intelligence, robotics, automation and digital transformation with ever-smarter machines performing more human tasks; globalization in which our workforce is going global and the global workforce coming to us; and collaboration with many jobs, with many employers all at the same time (Foundation for Young Australians, 2017a, 2017b). Research has it that we are living through significant and world-changing times and that if people are to remain employable, they will need to acquire and develop new skills. These skills not only refer to technical knowledge and skills, but also to 'soft' skills like collaborative capability, empathy, and entrepreneurial skills (Tytler et al., 2019). Whether or not experts predict the mass elimination of jobs or the creation of more new jobs (AlphaBeta, 2017), the consensus is the changes occurring in the labor market will be significant, substantial and likely to require a large proportion of the workforce to engage in retraining, reskilling and lifelong learning (Riad, 2017; Silvennoinen & Nori, 2017). Research supports that the

entire population is living in the technological transformation age in the way we work and conduct business (Stubbings, & Williams, 2018). Research also agree that if we want to avoid the significant social dislocation caused by the speed of technological advances and changes, we will need policymakers including businesses and employers to work collaboratively to address these innovations and how to ease the fear of an automated society (Bakhshi, Downing, Osborne, & Schneider, 2017).

Recommendations

The goal is to increase employment opportunities for low-skilled, displaced, and unemployed adults who are looking to re-enter the job market. The workforce development approach is to help workers obtain these skills through training programs and other skilled services developed in response to employer demand. Research shows such improvements increase earnings and improve job quality for all unemployed or under-skilled workers or workforce in the region. Based on the findings of this project study and the scholarly literature, the following recommended strategies are highlighted for this white paper report.

Recommendation #1: Retention, Collaboration, and Technologies

The WTC partner with local businesses to discuss strategies to help businesses recruit and retain workers, work collectively to improve compensation packages that are competitive with other employers and industries, and incorporate new technologies by creating and providing applicable training (Ziegler, 2015).

Recommendation #2: Skill Alignment and Changing Needs

The WTC and the local businesses and employers partner to discuss nuanced alignment of curricula according to the changing needs of local businesses and employers. Forming a partnership can affect how local businesses, employers, WTCs, public workforce agencies, and education and other training providers collaborate to create broader change (Ziegler, 2015).

Recommendation #3: Networking About the Availability of Training

The WTC notify businesses and employers with information about its availability to assist in the development and delivery of training and certificate programs for supervisors, managers, and employees new to leadership positions (Messina, 2017).

Recommendation #4: Early and Continuing Career Counseling

The WTC assist adult students or working adults with career exploration and preparation to identify specific career interests (Carlson, 2017). Starting this process early allows the adult working student to learn about the different career options available while developing professional working skills (Selingo, 2017).

Recommendation #5: Job Fairs, Internships, and Externships

The WTC and local businesses host job fairs and networking events so adult students looking for employment can meet and talk with employers in a career field of interest. Offering paid internships and externships as hiring incentives to workers seeking employment (Carlson, 2017).

Recommendation #6: Resourcing for New Hires

Businesses and employers utilize WTC services to search for applicants with the skills and competencies needed to work for their company (Hudson & Klein-Collins, 2018).

Recommendation #7: Chamber of Commerce Membership

The WTC join and maintain active membership in the local Chamber of Commerce to facilitate networking and collaboration with the business community that it supports.

The outcome is the low skilled, displaced, and unemployed workers gain access to training, jobs, and advancement opportunities from attending the WTC. Likewise, businesses and employers have access to a qualified and productive workforce (Ziegler, 2015). In the next section, I provide a project description in terms of potential resources, barriers, implementation and timetable, and the role and responsibilities of students and others.

<div align="center">

Project Description

</div>

After the completion of this project study, I will present a copy of the white paper report (Appendix A) to the WTC director and the business and employer participants. The white paper included an introduction, a description of the local problem, a summary including the data analysis, recommendations, and conclusion. The overall goal of the white paper is to provide recommendations to improve employment opportunities for the low skilled, displaced, and unemployed workers in the local area and to provide recommendations for aligning the WTC curriculum with local area business needs.

Needed Resources and Existing Supports

The primary resources needed to present the project to the WTC director and business partner participants primarily consists of their time and interest to allow me to present the white paper. I received support from my committee chair that provided feedback and guidance throughout the entire process of my study. Support from my second committee member also made my white paper report possible. The participants of this study supported this white paper report, including the WTC director's approval to use the WTC site as a research partner. Without the gracious participants' participation, I would not have had any data or research to report.

Potential Barriers and Solutions

I predict few barriers in presenting my white paper to the WTC Director and participant businesses. The Director was sincerely interested, supportive, and willing to be part of my research. A potential barrier for the white paper report would be if some of the businesses and employers decided at the very last minute not to participate in my study. A possible solution for this would be to continue the research with those who were sincerely interested and supportive. Another potential barrier is not being able to schedule a time to meet with each business and employer participant once the study is completed. A potential solution to this barrier can be to contact them by phone, get the business address, and mail them the report. It is not pertinent that I hand deliver the white paper report. The main concern is the participants received it.

Implementation and Timetable

Upon approval and acceptance of my doctoral study and white paper by Walden

University, I agreed to deliver my completed report to the local business and employer

participants and to the WTC Director. Then, I will contact the WTC Director and the

business and employer participants by phone to schedule a meeting time that is

convenient to discuss the white paper report, and to answer any questions they may have

regarding the policy recommendations. There is no timetable to disseminate the white

paper, and I expect to have either presented it, scheduled it for presentation, or been

declined an audience to present it to all participants within one month of having

completed my study.

Roles and Responsibilities of Student and Others

As a student, my responsibility was to create a white paper report based on the

research findings then deliver a finished report to the WTC Director and the business

participants. My role as a student was to present the report with the recommendations to

the WTC Director and the business and employer participants. I will give them the white

paper and provide them with an overview of the research findings and the

recommendations, and address any questions they may have at the end of the

presentation. The role and responsibility of the WTC Director will be to share the white

paper recommendations with the WTC Service Board if desired. Besides, the business

and employer participants' role and responsibility would be to share the white paper

recommendations with their local or regional supervisor as well as their employees if

they desire. However, if the participants ask me to collaborate with them for the presentation, I would do so.

Project Evaluation Plan

The project genre was a policy recommendation report that was presented in the form of a white paper. One goal of the white paper was to provide the WTC Director with information and recommendations to align its certificate and training programs for unemployed individuals to meet business needs. The second goal of the white paper is to share with local businesses and employers the information on the employability skills they seek when hiring new employees. The evaluation plan was outcomes-based. First, the outcome to be measured was whether the WTCs training and certificate programs had met the needs of the businesses in the region. Second, the outcome was whether local businesses and employers feel the WTC provided skilled workers to fill their current and future workforce needs. The overall goals of the project were to improve employment opportunities for low-skilled, displaced, and unemployed adults looking to re-enter the job market.

Project Implications

Possible Social Change Implications

Possible social change implications from this white paper would contribute to a positive social change where individuals have the opportunity to enhance basic learning and skills training to meet the challenges of the 21st-century workplace. Additionally, aligning workforce training programs with the needs of businesses and employers affect positive social change for many people. Workers and their families will benefit from

more stable employment. Employers will benefit from lower employee turnover. The WTC will benefit from increased visibility and awareness by individuals in the community. Positive social change occurs when WTCs have better prepare unemployed workers for career success in local job markets.

Local Community and Stakeholders

The importance of this project study to local stakeholders is it addresses the needs of low-skilled, displaced, and unemployed workers in rural southern Virginia. The recommendations from this project study white paper have the potential for improving employment opportunities for low-skilled, displaced, and unemployed individuals living in this area. This white paper report outlines policy recommendations that will help the WTC service board to align the curricula to meet business needs and help workers learn, grow, and adapt to the demands and changes in the workforce.

Far-Reaching and Larger Context

In the larger context, this research study can influence WTCs located in other cities and rural areas to determine if their curricula are preparing low-skilled, displaced, and unemployed workers with the necessary skills to be competitive. Far-reaching, this white paper report could be a model to help improve employment services, support, and access for individuals with disabilities in other areas, at the state level. What is more, the policy recommendations could assist the regional WTC Service Board as they set priorities when assessing and aligning the curriculum with business and employer needs.

Conclusion

Section 3 began with an introduction of the white paper project study, which contains the description of the project, the goal of the project, the rationale, literature review, the project description, the project evaluation plan, and the implications for social change. Following this section, Section 4 covers the content of a detailed white paper report (see Appendix A) that details policy recommendations on aligning WTC curriculum with local business needs. The WTC Director and businesses and employer participants will get a copy of this white paper report with recommendations once I complete the program.

Section 4: Reflections and Conclusions

Introduction

In this final section, I present my reflections and conclusions of this project study.

I discuss the strengths and limitations of the project, recommendations for alternative

approaches to address the problem, scholarship, project development, leadership and

change, and reflect on the importance of the work. Finally, Section 4 closes with the

implications, applications, directions for future research, and a conclusion.

Project Strengths and Limitations

Project Strengths

The strength of this project study was the direct exploration of the needs of the

local businesses and employers, and whether the WTC has aligned its certificate and

skills training programs with business and employer needs. Aligning the WTC

curriculum with business and employer needs will increase the business recruitment of

skilled employees. Thus, the employers will have access to employees with the skills that

are more aligned with employer needs. As a result, the livelihood and social well-being of

those individuals living in rural areas impacted by the study may be improved.

Individuals living in these areas may once again provide more completely for their

families. The policy recommendation in Appendix A provides recommended strategies

for how the WTC can improve employment opportunities for low-skilled, displaced, and

unemployed workers based on the findings in this study, as well as best practices derived

from the review of relevant literature. The report also includes recommended steps for

how to align the WTC training and certificate programs with the needs of the local

businesses and employers.

Project Limitations

One limitation of the project study was the business and employer industry

participants pool. None of the potential manufacturing industry participants responded.

Also, one restaurant industry participant could not find the time to be interviewed.

Nonetheless, I was able to interview 11 out of the 14 participants that were selected.

Another limitation was that the data collected was limited only to a small number of

participants. A larger sample size could have increased the likelihood that consumers of

this research may have similar circumstances and find applicability in my research

findings. Even then, however, generalizability would be limited because of different

business needs, locations, funding streams, and regulatory and reporting requirements.

Also, qualitative studies are not considered generalizable to other populations due to the

subjective nature of the research approach (Creswell, 2015).

<div align="center">

Recommendations for Alternative Approaches

</div>

The research problem was to explore and understand the needs of local businesses

and employers, and whether the WTC was preparing low skilled, displaced, and

unemployed workers with adequate employability skills. Although this project study

focused on addressing the problem, an alternative approach to the problem could be to

evaluate several workforce-training centers' curriculum programs and compare the

findings. A second approach to the problem could be to explore the lived experiences of

displaced and unemployed workers' livelihood and social challenges living and working

in rural areas. Another approach could include a larger sample size of participants and include other industries such as banking corporations, gas and utility companies, electrical co-op companies, and larger retail stores. Still another alternative solution to the problem could be to conduct a follow-up with individuals who graduated after completing the WTC programs to ascertain if they were able to find employment.

Scholarship, Project Development, and Leadership and Change

In this subsection, I discuss scholarship, project development, and leadership and change. My personal growth as a scholar, practitioner, and project developer is also discussed.

Scholarship

One attribute I learned about scholarship pertains to the academic rigor, the importance of careful design, and the time involved in planning and completing the project. Another attribute of scholarship is staying focused on the work at hand. For example, the process of creating this project study to be implemented was an experience where staying on task was crucial. Scholarship also necessitates engrossing oneself in the subject of the project study to pull out the necessary information (Leibowitz & Bozalek, 2016; Sandmann, Saltmarsh, & O'Meara, 2019). For this study, I had to conduct thorough literature reviews relevant to the problem being researched and studied. There were long and countless hours spent planning, analyzing, synthesizing, writing, and revising information to make it flow to where others could follow and understand what I was presenting. What I learned is that scholarship refers to the knowledge that is obtained and gained from research to be disseminated as change data along with other information

(Leibowitz & Bozalek, 2016; Sandmann et al., 2019). In essence, scholarship is about adding to the knowledge base of a topic or to present a discovery that would advance the topic to another level or improve the topic in another direction.

Project Development

What I learned from this project development was how to locate and retrieve information, read and interpret the information, then integrate it into my study. I learned that project development takes many revisions and paraphrasing, interpretations, and reviews to get it right. I learned to be flexible and to allow the project to emerge from the data and research. After reading various dissertations and government reports relating to improving workforce training curricula and programs, I decided through consultation with my research committee that a white paper report would allow me to present my study's findings and make recommendations to address WTC curriculum and the businesses and employers concerns for qualified working individuals.

Once I decided to create a white paper report, I searched for white papers to look at different formatting styles. Research showed that white paper format depends on the audience the paper is to be presented to as well as the type of information to be disseminated. In developing my project deliverable, I focused on the workforce and business audience to ensure the information was beneficial to them. The result was a white paper report offering policy recommendations to be presented to the WTC Director and the business and employer participants. In summary, I learned a lot about how to collect and bring together only the essential information to be delivered to a specific audience.

Leadership and Change

What I learned was that leadership development is a continuing process, and leaders are not born; they are created through their experiences. It has transformed me both professionally and personally by requiring me to focus and pursue this undertaking through to the very end. Even though there were doctoral challenges, coming to the end of another milestone made me see the true leaders are those who stay the course despite the challenges. True leaders want to make a change and seize every opportunity to do so. As an educational leader, I will continue to research, explore, and advance my knowledge to influence improvement in the areas of adult and workforce education.

Analysis of Self as a Scholar

Throughout the completion of this project study, I have learned a lot about myself as a scholar. I have learned that completion of any advanced or doctoral degree requires a passion for the area of research or project study, self-determination, and a mindset of impacting social change. Moreover, I have learned that scholars have to write many drafts, pay attention to detail, and possess much patience. Learning to write in a scholarly style was new and quite challenging for me. One challenge was accepting constructive criticism from my committee chair. At first, I had difficulty with all of the correction marks on my proposal and did not understand why; there were times when I just wanted to cry. A second challenge was being reminded that I could not use my own words or opinions without referencing or citing the information. I thought I was a good writer since I was asked to be a part of a curriculum writing team in my area of study for my state education department. However, that thought was short-lived because I soon learned

that I had to dismiss everything I thought I knew, and adapt to a new level of writing. I had to think on a deeper level and start writing as a scholar-practitioner. As I began to embrace the meaning of scholarly writing, I flourished as a researcher and scholar through my reading and writing. As a result, my project study continued to emerge. I was able to integrate the learning and engage in more meaningful dialog with classmates while adding to my knowledge and confidence as a scholar.

Analysis of Self as a Practitioner

As I reflect on myself, I can say my personal growth as a practitioner was enhanced as I developed as a researcher throughout this project study. What I discovered is that being a scholar-practitioner requires one to search deeper for information to share with others. I can now research from start to finish. I can identify primary and secondary resources, utilize credible and recent sources, and locate relevant peer-reviewed journal articles and consume studies. Also, my ability to collect, analyze, and synthesize data as a scholar was enhanced. Studying as a doctoral student at Walden University has genuinely enriched my knowledge and experience as a student, scholar-practitioner, and soon as an expert in the adult and workforce education field. As a practitioner, I see that completing this project will help me as I strive to improve workforce skills for low-skilled, displaced, and unemployed individuals. Finally, the skills of a scholarly writer and researcher and project developer have made me a better scholar-practitioner, lifelong learner, and an agent for positive change.

Analysis of Self as a Project Developer

As a project developer, I learned a great deal of information. The rationale of this project study was to explore the alignment of the WTC program curricula and the needs of businesses to see if the programs offered by the WTC align with and address business needs. The project result consisted of several policy recommendation strategies to increase employment opportunities for unemployed workers who are looking to re-enter the job market. The goal is to help these workers obtain the necessary education and technical skills that employers need and want in their employees. The development of this study was based on my knowledge and research that unemployed workers need employability skills to re-enter today's job market as well as to be competitive with their working counterparts. My project incorporated information on the skills and training needed for 21st Century employment. Therefore when I attended orientation at Walden, I was informed about the option of completing a traditional dissertation or project study. It was explained to me that a project study would allow me the opportunity to examine a local problem and assist with improving educational practices that would impact social change. Therefore, I chose to pursue a project study so I could create a practical project with recommendations to help unemployed people in my community.

Reflection on the Importance of the Work

This project study concentrated on aligning workforce skills and training programs with the needs of businesses and employers. The alignment will increase employment opportunities as unemployed adults looking to re-enter the job market or obtain promotion at their present place of employment. The importance of this work is

viewed from the perspective of businesses and employers as they strive to stay abreast of the technological changes and advancements in the workplace, including hiring skilled employees. Additionally, the significance of this work is viewed from the perspective of the WTC stakeholders as they rise to the Governor's call to partner with local businesses and employers to discuss and identify the necessary knowledge and skill sets for employment. Finally, the significance of this study consists of new insights into the kinds of skills employers want and need, as well as the kinds of skills that employees need to hone for success in the current job market.

Implications, Applications, and Directions for Future Research

This subsection presents the implications or impacts of positive social change. The applications and directions for future research are discussed also.

Implications

When research knowledge is applied to help individuals improve their daily being and livelihood, then positive social change can take place. Upgrading employment skills to be competitive will add positive social change to the lives of those individuals who seek employment. Also, when businesses and employers offer on-the-job training to develop their employees, changes occur in the workplace as well as the employees' working attitude. Finally, increasing employees' earnings through raises or bonuses gives employees more buying power, which adds to their self-value and self-worth in society. Overall, small social changes can improve the living standards of individuals or employees as well as create business growth that will benefit the community.

Applications

Throughout this project study, my goal was to address 21st-century skills gaps between the WTC education offerings and the local employer needs. With the changing workforce, businesses and employers seek workers with the right skills. As more businesses and employers rely on automation, the capability of workers to use technological and automated tools has become essential in the workplace. Furthermore, for businesses to retain the workers they have, their employees need to be retrained with newer skills. For these reasons, the alignment of the workforce training curricula necessitates programs to enable obtaining industry certifications, licenses, and credentials that will make adult workers more employable. The outcome of this project is the WTC has aligned its training and certificate programs to meet the needs of local businesses. In contrast, the local businesses and employers feel the WTC did adequately provide skilled workers to meet their needs.

Future Research

This study can be replicated and may find applicability to rural geographic locations where there is interest in investigating the alignment of workforce training and educational institutions programs with local business and employer needs. A second recommendation for future research is to expand this study to include veterans, disadvantaged, and disabled individuals seeking employment. The third recommendation is to include the students themselves to better understand the problem and challenges from their perspective. My final recommendation would be to include more significant industries such as utility companies, manufacturing, and financial institutions like banks.

Conclusion

The work accomplished through this research study and the creation of a policy recommendation report has the potential of improving the lives of low-skilled, displaced, and unemployed workers. When adult workers experience job loss and are allowed to improve their working skills to gain industry credentials, they become more attractive to employers. In competitive job markets, working individuals have to be creative in developing skills to keep their positions; therefore, additional training always helps.

One thing is certain: The coming decades will bring change. Some current jobs will disappear, and new jobs that do not yet exist will emerge. All jobs will be affected by globalization, technological progress, and demographic changes. For WTCs and other education entities to remain relevant through these changes, they will need a protocol and method to ensure their curricula speak to the needs of the employers who higher their graduates. This study provides one such protocol, and the policy paper that resulted from the study provides recommended strategies to increase employment opportunities for low-skilled, displaced, and unemployed adults who are looking to enter or re-enter the job market. This policy will help businesses and employers to recruit and hire workers who have received training in the skills that are valued by the business. Finally, increased earnings, improved job quality, and improved quality of life may combine to help this region regain economic vitality and community cohesion.

References

Alexander, C., & Goldberg, M. (2011). Lifelong learning through labor/management cooperation: Building the workforce of the future. *Adult Learning*, *22*(1), 6-11. https://doi.org/10.1177/104515951102200102

AlphaBeta. (2017). *The Automation Advantage*. Retrieved from www.alphabeta.com/wp-content/uploads/2017/08/The-Automation-Advantage.pdf

Anderson, L. (2015). Targeted programs and career pathways within workforce development policies. ECS Education Policy Analysis. *Education Commission of the States.*

Athreya, K., Neelakantan, U., & Romero, J. (2014). Expanding the scope of workforce development. Federal Reserve Bank of Richmond. *Richmond Federal Economic Brief*, (May), 1-6. Retrieved from https://www.richmondfed.org/~/media/richmondfedorg/publications/research/economic_brief/2014/pdf/eb_14-05.pdf

Bakhshi, H., Downing, J., Osborne, M., & Schneider, P. (2017). *The Future of Skills: Employment in 2030*. London: Pearson and Nesta.

Barrera, J. C. (2013). Computer literacy in undergraduate business education: The case for the adult fast track programs. *American Journal of Business Education*, *6*(4), 471-482. https://doi.org/10.19030/ajbe.v6i4.7946

Benbow, R. J., & Hora, M. T. (2016). The cultural nature of valued skills: A qualitative investigation of postsecondary science education and the "skills gap" in Wisconsin. WCER Working Paper No. 2016-06. *Wisconsin Center for Education*

Research. Retrieved from

http://www.wcer.wisc.edu/publications/workingPapers/papers.php

Bevins, P., Carter, K., Jones, V. R., Moye, J., & Ritz, J. M. (2012). The technology and

engineering educator's role in producing a 21st century workforce. *Technology &*

Engineering Teacher, *72*(3), 8-12. Retrieved from https://www.questia.com/

library/journal/1G1-307918549/the-technology-and-engineering-educator-s-role-

in

Bharti, N. (2014). The role of training in reducing poverty: The case of microenterprise

development in India. *International Journal of Training and Development*, *18*(4),

291-296. https://doi.org/10.1111/ijtd.12042

Bhat, C. (2010). Assisting unemployed adults find suitable work: A group intervention

embedded in community and grounded in social action. *Journal for Specialists in*

Group Work, 35(3), 246-254. https://doi.org/10.1080/01933922.2010.492898

Blustein, D. L., Kozan, S., & Connors-Kellgren, A. (2013). Unemployment and

underemployment: A narrative analysis about loss. *Journal of Vocational*

Behavior, 82(3), 256-265. https://doi.org/10.1016/j.jvb.2013.02.005

Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An*

introduction to theories and methods (5th ed.). Boston, MA: Allyn & Bacon.

Bohonos, J. (2014). Understanding career context as a key to best serving adult students.

Adult Learning, 25(1), 25-28. https://doi.org/10.1177/1045159513510144

Borbely, J. M. (2011). Characteristics of displaced workers 2007-2009: A visual essay.

Monthly Labor Review, 132(11), 3-15. Retrieved from https://www.bls.gov/opub/

mlr/2011/article/characteristics-of-displaced-workers-2007-2009-a-visual-
essay.htm

Bowman, G. (2014). Building a 21st century workforce. *Economic Development Journal*,
13(4), 28. Retrieved from
http://www.iedconline.org/clientuploads/directory/docs/EDJ_14_Fall_Bowman.p
df

Bragg, D., Dresser, L., & Smith, W. (2012). Leveraging workforce development and
postsecondary education for low-skilled, low-income workers: Lessons from the
shifting gears initiative. *New Directions For Community Colleges*, *2012* (157),
53-66. https://doi.org/10.1002/cc.20006

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and
prosperity in a time of brilliant technologies*. New York, NY: W.W. Norton.

Buckwalter, V., & Togila, J. (2019). Accelerating opportunity in rural regions: Designing
pathway programs for adults and other non-traditional learners. *Jobs for the
Future*. Retrieved from www.jff.org

Bureau of Labor Statistics. (2015a). Labor force statistics from the current population
survey. Retrieved from www.bls.gov/web/empsit/cpseea10.htm

Bureau of Labor Statistics. (2015b). Preliminary 2014 data on employment status by state
and demographic group. Retrieved from www.bls.gov/lau/ptable14full2014.pdf

Cachia, M., & Millward, L. (2011). The telephone medium and semi-structured
interviews: A complementary fit. *Qualitative Research in Organizations and
Management, 6*, 265-277. https://doi.org/10.1108/17465641111188420

Cann, A., Watson, A. J., & Bridgewater, E. A. (2014). Assessing humor at work: The humor climate questionnaire. *Humor: International Journal of Humor Research*, *27*(2), 307-323. https://doi.org/10.1515/humor-2014-0019

Carlson, S. (2017). *The future of work: How colleges can prepare students for the jobs ahead.* Washington, DC: The Chronicle of Higher Education. Retrieved from store.chronicle.com/products/the-future-of-work

Carter, K. (2011). Occupations in the 21st century. In J. M. Ritz & P. S. Bevins (Eds.) *The connection to the 21st Century workforce: Technology and engineering education, pp.* 14-21. Reston, VA: ITEEA.

Charoensap-Kelly, P., Broussard, L., Lindsly, M., & Troy, M. (2016). Evaluation of a soft skills training program. *Business and Professional Communication Quarterly, 79*(2), 154-179. https://doi.org/10.1177/2329490615602090

Choi, D. Y., & Kang, J. H. (2019). Introduction: The future of jobs in an increasingly autonomous economy. *Journal of Management Inquiry*, 28(3), 298-299. https://doi.org/10.1177/1056492619827373.

Chopra, A. (2016). Solve unemployment with open data. *Democracy*: *A Journal Of Ideas*, (39), 41-43. Retrieved from https://democracyjournal.org/magazine/39/solve-unemployment-with-open-data/

Choy, S., & Delahaye, B. (2011). Partnerships between universities and workplaces: some challenges for work-integrated learning. *Studies in Continuing Education*, *33*(2), 157-172. https://doi.org/10.1080/0158037X.2010.546079

Cooney, K. (2011). The business of job creation: An examination of the social enterprise

approach to workforce development. *Journey of Poverty, 15*(1), 88-107.

https://doi.org/10.1080/10875549.2011.539505

Cover, B. (2011). Construction employment: A visual essay. *Monthly Labor Review*,

134(11), 23-36. Retrieved from https://stats.bls.gov/opub/mlr/2011/11/art2full.pdf

Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating

quantitative and qualitative research. Boston, MA: Pearson Education, Inc.

Creswell, J. W. (2015). Educational research: Planning, conducting, and evaluating

quantitative and qualitative research. 5th Edition. Boston, MA: Pearson

Education, Inc.

Creswell, J. W., & Poth, C. N. (2017). Qualitative inquiry and research design: Choosing

among five approaches. Los Angeles, CA: SAGE Publications.

Cummins, P. A., Yamashita, T., Millar, R. J., & Sahoo, S. (2019). Problem-solving skills

of the U. S. workforce and preparedness for job automation. *Adult Learning,*

20(10). https://doi.org/10.1177/1045159518818407

Danziger, S., & Ratner, D. (2010). Labor market outcomes and the transition to

adulthood. *The Future of Children, 20*(1), 133-158.

https://doi.org/10.1353/foc.0.0041

Davies, A., Fidler, D., & Gorbis, M. (2011). *Future Work Skills 2020*. Institute for the

Future for the University of Phoenix Research Institute.

Davis, N., Eickelmann, B., & Zaka, P. (2013). Restructuring of educational systems in

the digital age from a co-evolutionary perspective. *Journal of Computer Assisted*

Learning, *29*(5), 438–450. https://doi.org/10.1111/jcal.12032

Deng, L., Thomas, A., & Trembach, S. (2014). Shaping the 21st-century information

 professional: A convergence of technical and "soft" skills for workplace success.

 Proceedings of the American Society for Information Science and Technology,

 51(1), 1-4. https://doi.org/10.1002/meet.2014.14505101128

Department of Labor. (2014a). Workforce innovation and opportunity act. Retrieved

 from www.doleta.gov/WIOA

Department of Labor. (2014b). Workforce innovation and opportunity act (WIOA) key

 statutorily required implementation dates for programs administered by the

 Department of Labor. Retrieved from www.doleta.gov/wioa/pdf/WIOAKey-

 Implementation-Dates.pdf

Depken, C. A., & Gaggl, I. P. (2016). The impacts of ending long-term unemployment

 insurance: Evidence from North Carolina. Working Paper No. 2016-001.

 Retrieved from

 pdfs.semanticscholar.org/4588/634ffc569bd4510fc1391eb43e27191966e6.pdf

Doosje, S., de Goede, M., van Doornen, L., & Goldstein, J. (2010). Measurement of

 occupational humorous coping. *International Journal of Humor Research 23*(3),

 275–305. https://doi.org/10.1515/humr.2010.013

Doyle, A. (2018). *Succeed in an open job interview*. Retrieved from

 www.thebalancecareers.com/what-is-an-open-job-interview-2061630

Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Weissberg, R. P., & Schellinger, K. B.

 (2011). The impact of enhancing students' social and emotional learning: A meta-

 analysis of school-based universal interventions. *Child Development*, *82*(1), 405-

432. https://doi.org/10.1111/j.1467-8624.2010.01564

Duru-Nnebue, T. (2012). *An Evaluation of a Community College's Workforce-Training Program*. Unpublished manuscript. Minneapolis: Walden University.

Eades, D. C., & Hughes, D. W. (2017). Too few skills for some, too many skills for others: Are future rural employment opportunities a poor match for the rural labor supply? Career & Technical Education Research, 42(2), 79-102. https://doi.org/10.5328/cter42.2.79

Economic Research Service. (2013). Rural America at a glance. *Economic Brief No. 24, 2013 Ed*. USDA, Washington DC.

Economic Research Service. (2014a). Rural America at a glance. *Economic Brief No. 26, 2014 Ed.* USDA, Washington DC.

Economic Research Service. (2014b). Rural poverty and well-being. Retrieved from: http://ers.usda.gov/topics/rural-economy-population/rural-poverty-wellbeing/income.aspx.

Editorial. (2013). Workplace basics: The skills employees need and employers want. *Human Resource Development International*, *16*(5), 491–501. https://doi.org/10.1080/13678868.2013.821267

Eldridge, L. B. (2017). Aligning open badges and open credentialing with open pedagogical frameworks to address the growing skills gap. *International Journal of Information and Education Technology*, *7*(4), 314. https://doi.org/10.18178/ijiet.2017.7.4.887

Elkins, S. A., Bell, R. R., Hartgrove, L., & Pardue, S. (2016). Industry cluster pathways:

A focused approach to regional workforce development. *SAM Advanced Management Journal (07497075)*, *81*(1), 20-33. Retrieved from https://samnational.org/sam-advanced-management-journal

El Mansour, B., & Dean, J. C. (2016). Employability skills as perceived by employers and university faculty in the fields of human resource development (HRD) for entry level graduate jobs. *Journal of Human Resource and Sustainability Studies, 4*(01), 39-49. https://doi.org/10.4236/jhrss.2016.41005

Evangelist, M., & Christman, A. (2013). Scarring effects: Demographics of the long-term unemployed and the danger of ignoring the jobs deficit. *National Employment Law Project*, 1-23. Retrieved from www.nelp.org

Fallin, M. (2014). America works: Education and training for tomorrow's jobs. *Policy & Practice (19426828), 72*(3), 28-36. Retrieved from http://www.nga.org/files/live/sites/NGA/files/pdf/2014/CI1314AmericaWorksGuideFinal.pdf

Farber, H. S. (2011). *Job loss in the Great Recession: Historical perspective from the displaced workers survey, 1984-2010* (No. w17040). National Bureau of Economic Research. https://doi.org/10.3386/w17040

Foundation for Young Australians (FYA). (2017a). The new work order: Ensuring young Australians have skills and experience for the jobs of the future, not the past. Retrieved from http://www.fya.org.au/wp-content/uploads/2015/08/fya-future-of-work-report-final-lr.pdf

Foundation for Young Australians (FYA). (2017b). The new work smarts: Thriving in the

new work order. Retrieved from https://www.fya.org.au/report/the-new-work-smarts/

Gabriel, Y., Gray, D. E., & Goregaokar, H. (2013). Job loss and its aftermath among managers and professionals: Wounded, fragmented and flexible. *Work, Employment Society*, 27(1), 56-72. https://doi.org/10.1177/0950017012460326

Githens, R. P., Sauer, T. M., Crawford, F. L., Cumberland, D. M., & Wilson, K. B. (2014). Online workforce development in community colleges: Connection with community, institutional, and governance factors. *Community College Review*, *42*(4), 283-306. https://doi.org/10.1177/0091552114534724

Glasmeier, A., & Salant, P. (2006). *Low-skill workers in rural America face permanent job loss*. Casey Institute (Policy Brief No. 2).

Glesne, C. (2011). *Becoming qualitative researchers.* Boston, MA: Pearson Education, Inc.

Gonzalez, G. C., Singh, R., Karam, R., Ortiz, D. S., Robson, S., Phillips, A., & Hunter, G. (2015). Aligning Education and Training to Meet Energy Workforce Needs. Research Brief.

Goodman, M., Finnegan, R., Mohadjer, L., Krenzke, T., & Hogan, J. (2013). Literacy, numeracy, and problem solving in technology-rich environments among U.S. adults: Results from the program for the international assessment of adult competencies 2012. First look NCES 2014-008. *National Center for Education Statistics*.

Gordon, C. (2011). Top 10 jobs of the 21st century. Retrieved from:

jobs.aol.com/articles/2011/12/12/the-top-10-jobs-of-the-21st-century.

Gould, R. (2016). White paper writing: My words mean business. *Richard Goulde Writing.* Retrieved from: www.richardgoulde.com/our-services/whitepapers

Graham, G. (2015). *How to write white papers for multiple audiences*. Retrieved from https://thatwhitepaperguy.com/writing-a-white-paper-that-gets-results/

Griffin, P., Care, E., & McGaw, B. (2012). The changing role of education and schools. In P. Griffin, B. McGaw, & E. Care (Eds.), *Assessment and teaching of 21st century skills*, pp. 1–15. Heidelberg: Springer.

Griswold, E., & Ellis, I. (2012). America's displaced worker: Resources for successful workforce re-entry. *Journal of Studies in Education, 2*(2), 30-42. https://doi.org/10.5296/jse.v2i2.1428

Hancock, D. R., & Algozzine, B. (2011). *Doing case study research: A practical guide for beginning researchers* (2nd ed.). New York: Teachers College Press, Columbia University.

Harmon, T., & Ridley, N. (2014). Workforce results matter:" The critical role of employment outcome data in improving transparency of postsecondary education and training". *Center for Postsecondary and Economic Success*.

Harun, H., Salleh, R., Baharom, M. N. R., & Memon, M. A. (2017). Employability skills and attributes of engineering and technology graduates from employers' perspective: Important vs. satisfaction. *Global Business and Management Research: An International Journal, 9*(1), 572-580. Retrieved from http://www.gbmrjournal.com

Hasan, A., Wilkins, L., McShane, K., Arzaga, A., & Lachman, R. (2019). *Ryerson university zone learning: A pilot evaluation of 21st century skills*. Incubate Innovate Network of Canada. Retrieved from http://www.iincanada.ca/wp-content/uploads/2019/03/IINC-19_WPP_21stCenturySkills.pdf

Hayes, K. (2013). Teaching marketable skills with 21st-century materials. *Techniques, 88*(2), 52-55. Retrieved from https://www.questia.com/read/1G1-320734828/teaching-marketable-skills-with-21st-century-materials

Hees, C. K., Rottinghaus, P. J., Briddick, W. C., & Conrath, J. A. (2012). Work-to-school transitions in the age of the displaced worker: A psychology of working perspective. *Career Development Quarterly*, *60*(4), 333-342. https://doi.org/10.1002/j.2161-0045.2012.00025.x

Helyer, R., & Lee, D. (2012). The twenty-first century multiple generation workforce: Overlaps and differences but also challenges and benefits. *Education Plus Training, 54*(7), 565-578. https://doi.org/10.1108/00400911211265611

Henson, K., & Kamal, M. (2010). Closing the gap: Information systems curriculum and changing global market. *American Journal of Business Education* 3(5) 17-20. https://doi.org/10.19030/ajbe.v3i5.423

Hoffman, M. (2016). *How to write a white paper: A closer look at white paper definition.* Retrieved from www.hoffmanmarcom.com/what-is-a-whitepaper.php

Holland, B. (2015). A workforce development systems model for unemployed job seekers. *Journal of Adult and Continuing Education, 21*(2), 55-76. https://doi.org/10.7227/JACE.21.2.5

Holzer, H. (2015). Raising job quality and skills for American workers: Creating more-

    effective education and workforce development systems in the states. Retrieved

    from

    https://www.hamiltonproject.org/assets/legacy/files/downloads_and_links/11_wor

    kforce_holzer_paper.pdf

Hoyle, R. H., & Davisson, E. K. (2011). Assessment of self-regulation and related

    constructs: Prospects and challenges. In *NRC Workshop on Assessment of 21st*

    Century Skills. Retrieved from https://atecentral.net/r21426/assessment_of_self-

    regulation_and_related_constructs_prospects_and_challenges

Hudson, S., & Klein-Collins, R. (2018). More than just a job search: Relevant,

    intentional, and accessible career services for today's student (and returning

    adults). *The Council for Adult and Experiential Learning*. CAEL Linking

    Learning and Work. Retrieved from www.cael.org

Itkin, D., & Salmon, L. (2011). How occupational employment is affected by mass

    layoffs. *Monthly Labor Review*, *134*(6), 3-33. Retrieved from

    https://www.bls.gov/opub/mlr/2011/06/art1full.pdf

Jackson, S. (2015). A new era of alignment in Massachusetts' advanced manufacturing

    industry. *Pathways to Prosperity Network*. Retrieved from

    http://jff.org/resources/new-era-alignment-massachusetts-advanced-

    manufacturing-industry

Jacobson, E. (2016). Workforce development rhetoric and the realities of 21st century

    capitalism. *Literacy & Numeracy Studies, 24*(1), 3-22. doi:10.5130/lns.v24i1.4898

James, I. (2012). Moral learning for the workplace: A role for VET. *International Journal of Training Research*, *10*(2), 132-148. https://doi.org/10.5172/ijtr.2012.10.2.132

Kampylis, P., Bocconi, S., & Punie, Y. (2012). Towards a mapping framework of ICT-enabled innovation for learning. *JRC Scientific and Policy Reports*. https://doi.org/10.2791/89492

Kantor, J. (2010). *Crafting white paper 2.0*. Raleigh, NC: LuLu Press, Inc.

Kasworm, C., & Bowles, T. (2012) Fostering transformative learning in higher education Settings. In Taylor, E. & Cranton, P. (Eds). *The Handbook of Transformative Learning*. (pp. 388-407) San Francisco: Jossey-Bass.

Kennedy-Lewis, B. L. (2012). When a teacher becomes a researcher: Using self-narrative to define one's role as participant-observer. *Theory Into Practice, 51*(2), 107–113. https://doi.org/10.1080/00405841.2012.662865

Kivunja, C. (2014a). Do you want your students to be job-ready with 21st century skills? Change pedagogies: A paradigm shift from Vygotskyian Social Constructivism to critical thinking, problem solving and Siemens' Digital Connectivism. *International Journal of Higher Education, 3*(3), 81-91. https://doi.org/10.5430/ijhe.v3n3p81

Kivunja, C. (2014b). Innovative pedagogies in higher education to become effective teachers of 21st century skills: Unpacking the learning and innovations skills domain of the new learning paradigm. *International Journal of Higher Education, 3*(4), 37-48. https://doi.org/10.5430/ijhe.v3n4p37

Kivunja, C. (2015). Teaching students to learn and to work well with 21st century skills: Unpacking the career and life skills domain of the new learning paradigm. *International Journal of Higher Education*, *4*(1), 1-11. https://doi.org/10.5430/ijhe.v4n1p1

Klaus, P. (2010). Communication breakdown. *California Job Journal, 28*, 1-9. Retrieved from connection.ebscohost.com/c/articles/52911024/communication-breakdown

Klimplová, L. (2012). Employers' view on problems related to workforce skills and qualification. *Journal of Competitiveness*, *4*(4), 50-66. https://doi.org/10.7441/joc.2012.04.04

Kristal, T., & Cohen, Y. (2015). What do computers really do? Computerization, fading pay-setting institutions and rising wage inequality. *Research in Social Stratification and Mobility*, *42*, 33-47. https://doi.org/10.1016/j.rssm.2015.07.001

Ku, W. A. (2014). Careers in the 21st century. *Children's technology & engineering*, *18*(4), 32-33. Retrieved from http://www.iteaconnect.org/

Kyllonen, P. C. (2013). Soft skills for the workplace. *Change*, *45*(6), 16-23. https://doi.org/10.1080/00091383.2013.841516

Laker, D. R., & Powell, J. L. (2011). The differences between hard and soft skills and their relative impact on training transfer. *Human Resource Development Quarterly*, *22*(1), 111-122. https://doi.org/10.1002/hrdq.20063

Landon, M. G., & Ritz, J. M. (2011). Emerging workforce trends and issues impacting the Virginia Community College System. *The Journal of Applied Research in the Community College*, *19*(1), 14-23. Retrieved from

http://www.raritanval.edu/ncrp/journal.html

Law, N., Yuen, A., & Fox, R. (2011). *Educational Innovations beyond Technology-Nurturing Leadership and Establishing Learning Organizations.* New York, Springer.

Leavitt, L. L. (2011). 21st century workforce initiatives: Implications for information literacy instruction in academic libraries. *Education Libraries*, *34*(2), 15-18. https://doi.org/10.26443/el.v34i2.307

Leibowitz, B., & Bozalek, V. (2016). The scholarship of teaching and learning from a social justice perspective. *Teaching in Higher Education*, *21*(2), 109-122. https://doi.org/10.1080/13562517.2015.1115971

Levasseur, R. E. (2013). People skills: Developing soft skills—A change management perspective. *Interfaces, 43*(6), 566-571. https://doi.org/10.1287/inte.2013.0703

Lichter, D. T., & Schafft, K. (2014). People and places left behind. *The oxford handbook of the social science of poverty*, 317. Retrieved from https://www.oxfordhandbooks.com

Lindqvist, E., & Vestman, R. (2011). The labor market returns to cognitive and non-cognitive ability: Evidence from the Swedish enlistment. *American Economic Journal: Applied Economics, 3,* 101–128. https://doi.org/10.1257/app.3.1.101

Lodico, M., Spaulding, D., & Voegtle, K. (2010). *Methods in educational research: From theory to practice.* San Francisco: John Wiley & Sons.

Lyons, A. C., Zucchetti, A., Kass-Hanna, J., & Cobo, C. (2019). The future of work and education for the digital age: Bridging the gap between digital skills and

employability for vulnerable populations. Retrieved from

https://www.researchgate.net

Lyons, S. T., Ng, E. S., & Schweitzer, L. (2014). Changing demographics and the

shifting nature of careers: Implications for research and human resource

development. *Human Resource Development Review*, *13*(2), 181-206.

https://doi.org/10.1177/1534484314524201

MacDermott, C., & Ortiz, L. (2017). Beyond the business communications course: A

historical perspective of the where, why, and how of soft skills development and

job readiness for business graduates. *The IUP Journal of Soft Skills, 11*(2), 7-24.

Retrieved from https://www.researchgate.net

Magsamen-Conrad, K., Dillon, J. M., Hanasono, L. K., & Valdez, P. A. (2016).

Developing an intergroup communication intervention curriculum: Enhancing

workforce skills across generations. In *Developing Workforce Diversity*

Programs, Curriculum, and Degrees in Higher Education, 140-161.

Mahmud, K. T., Parvez, A., Hilton, D., Kabir, G. M. S., & Wahid, I. S. (2014). The role

of training in reducing poverty: The case of agricultural workers receiving

microcredit in Bangladesh. *International Journal of Training and Development*,

18, 282-290. https://doi.org/10.1111/ijtd.12039

Mandemakers, J. J., & Monden, C. (2013). Does the effect of job loss on psychological

distress differ by educational level? *Work, Employment Society*, 27(1), 73-93.

https://doi.org/10.1177/0950017012460312

Markle, R., Olivera-Aguilar, M., Jackson, T., Noeth, R., & Robbins, S. (2013).

Examining evidence of reliability, validity, and fairness for the success navigator assessment. Research Report ETS RR-13-12. Princeton, NJ: Educational Testing Service.

Marrone, J. (2016). Workforce innovation and opportunity act (WIOA) and its application to youth and young adults with serious mental health conditions (SMHC). *Psychiatry Information in Brief*, *13*(8), 1. https://doi.org/10.7191/pib.1105

Marshall, C., & Rossman, G. (2011). *Designing qualitative research* (5th ed.). Thousand Oaks, CA: Sage.

Martin, L. G., & Smith, R. O. (2011). Pre-apprenticeship urban workforce training programs. *Adult Learning, 22*(1), 23-27. https://doi.org/10.1177/104515951102200105

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach.* Thousand Oaks, CA: Sage Publications Inc.

McMahon, S., & Horning, J. (2013). Living below the line: Economic insecurity and America's families. Retrieved from https://www.issuelab.org/resource/living-below-the-line-economic-insecurity-and-america-s-families.html

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. John Wiley & Sons, Incorporated.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. (2007). Learning in adulthood: A comprehensive guide. San Francisco, CA: John Wiley.

Messina, J. (2017). Making the connection: Aligning NYC's small businesses and the

workforce development system. *Center for an Urban Future*. Retrieved from

www.nycfuture.org

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A*

methods sourcebook (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Miliszewska, I., Venables, A., & Tan, G. (2010). Didactics of information technology

(IT) in a science degree: Conceptual issues and practical application. *Journal of*

Information Technology Education: Innovations in Practice, 9, 79-89.

https://doi.org/10.28945/1163

Mishra, P., & Kereluik, K. (2011). What 21st century learning? A review and a synthesis.

In *Society for Information Technology & Teacher Education International*

Conference, pp. 3301-3312. Association for the Advancement of Computing in

Education (AACE).

Mitchell, G. W., Skinner, L. B., & White, B. J. (2010). Essential Soft Skills for Success

in the Twenty-First Century Workforce as Perceived by Business Educators.

Delta Pi Epsilon Journal, *52*(1). Retrieved from

https://search.proquest.com/openview/e1e4492ba524f4ae699ab205fc6aafd6/1?pq-

origsite=gscholar&cbl=34490

National Academies of Sciences, Engineering, & Medicine. (2017). Building America's

skilled technical workforce. National Academies Press.

National Association of Colleges, & Employers. (2011). *NACE Directory*. National

Association of Colleges and Employers.

National Research Council. (2012). *Education for Life and Work: Developing*

Transferable Knowledge and Skills in the 21st Century. Committee on Defining

Deeper Learning and 21st Century Skills, James W. Pellegrino and Margaret L.

Hilton, Editors. Board on Testing and Assessment and Board on Science

Education, Division of Behavioral and Social Sciences and Education.

Washington, DC: The National Academies Press. Retrieved from www.nap.edu

National Skills Coalition. (2014). Side-by-side comparison of occupational training and

adult education & family literacy provisions in the workforce investment act

(WIA) and the workforce innovation and opportunity act. Retrieved from

www.nationalskillscoalition.org/resources/publications/file/2014-10_WIOA-Side-

by-Side.pdf

Nelson, D. B., & Low, G. R. (2011). Emotional intelligence: Achieving academic and

career excellence. Upper Saddle River, PA: Pearson Higher Education.

Nisha, S. M., & Rajasekaran, V. (2018). Employability skills: A review. *IUP Journal of

Soft Skills, 12*(1), 29-37. Retrieved from

https://search.proquest.com/openview/1f9f5ad8e5798a6b992e4c1bee830cbb/1?pq

-origsite=gscholar&cbl=2029989

OECD. (2017). *Future of Work and Skills.* Paper presented at the 2nd meeting of the G20

employment working group. Hamburg, Germany.

OECD. (2018). Transformative Technologies and Jobs of the Future: Background report

for the Canadian G7 Innovation Ministers' Meeting, (March). Retrieved from

www.oecd.org/sti/inno/transformative-technologies-andjobs-of-the-future.pdf

Office of the Governor. (2014a). *Establishing the new Virginia Economy workforce*

initiative. Retrieved from www.vec.virginia.gov

Office of the Governor. (2014b). *Southern Virginia works: Collaboration among three area community colleges to boost workforce credentials in Southern Virginia.* Retrieved from www.vec.virginia.gov

OWL, P. (2016). White paper: Purpose and audience. The Writing Lab & the OWL at Purdue University. Retrieved from owl.english.purdue.edu/owl/resources/546/1

OWL, P. (2018). Writing a research paper.

Partnership for 21st Century Skills. (2007). *The intellectual and policy foundations of the 21st century skills framework.*

Partnership for 21st Century Skills. (2011). *A Framework for 21st Century Learning*. Retrieved from www.p21.org

Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *HSR: Health Services Research 34*(5 Pt 2), 1189-1208. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1089059/

Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). Thousand Oaks, CA: Sage Publications Inc.

Pellegrino, J. W., & Hilton, M. L. (Eds.) (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century*. Washington, DC: The National Academies Press.

Perry, T. J. (2007). *Adult retraining programs and reemployment for dislocated workers*. (Unpublished doctoral dissertation). Walden University, Minneapolis, MN.

Pershing, J. A. (2015). White paper. *International Society for Performance Improvement,*

54(8), 2-5. https://doi.org/10.1002/pfi.21505

Pima Association of Governments PAG. (2017). Building a skilled workforce: The

Tucson Region's Aerospace and Defense Cluster–workforce needs and

opportunities in aviation technology – issue white paper. Retrieved

https://www.pagregion.com/documents/economic/WorkforceNeedsAndOpportuni

tiesInAviationTechnologyIssueWhitePaper2017-12-07.pdf

Prins, E., & Clymer, C. (2018). Career pathways in Chicago, Houston, and Miami: Key

features and support services among adult education providers. *Journal of*

Research and Practice for Adult Literacy, Secondary, and Basic Education, 28-

51. Retrieved from https://coabe.org/wp-

content/uploads/2019/09/TheResourceforAdultEducationCareerPathwaysSpecialE

dition.pdf#page=28

Rappel, L. (2015). Integrating the personal and the professional: Marking the career paths

of adult language educators. *Adult Education Quarterly*, *65*(4), 313-325.

https://doi.org/10.1177/0741713615585573

Ravitch, S. M., & Riggan, M. (2016). *Reason & rigor*. (2nd ed.). Los Angeles: Sage.

Redecker, C., & Johannessen, O. (2013). Changing assessment: Towards a new

assessment paradigm using ICT. *European Journal of Education*, *48*(1), 79-96.

https://doi.org/10.1111/ejed.12018

Riad, N. (2017). Education for life: Labor markets are changing, and millennials must

prepare and adjust. *Finance and Development, International Monetary Fund*

(IMF), 54(2). Retrieved

https://www.imf.org/external/pubs/ft/fandd/2017/06/riad.htm

Richardson, M., Abraham, C., & Bond, R. (2012). Psychological correlates of university students' academic performance: A systematic review and meta-analysis. *Psychological Bulletin, 138,* 353–387. https://doi.org/10.1037/a0026838

Roberts, B., Povich, D., & Mather, M. (2013). Low-income working families: The growing economic gap. *The Working Poor Families Project*, *301*(3), 657-1480. Retrieved from http://www.workingpoorfamilies.org/wp-content/uploads/2013/01/Winter-2012_2013-WPFP-Data-Brief.pdf

Robles, M. M. (2012). Executive perceptions of the top 10 soft skills needed in today's workplace. *Business Communication Quarterly, 75*(4), 453–465. https://doi.org/10.1177/1080569912460400

Rosenberg, S., Heimler, R., & Morote, E. S. (2012). Basic employability skills: A triangular design approach. *Education Training, 54*(1), 7-20. https://doi.org/10.1108/00400911211198869

Russell, J. C. (2011). The use of narratives to contextualize the experiences and needs of unemployed, underemployed, and displaced workers. *Journal of Employment Counseling*, *48*(2), 50-62. https://doi.org/10.1002/j.2161-1920.2011.tb00114.x

Rycroft-Malone, J., Burton, C. R., Williams, L., Edwards, S., Fisher, D., Hall, B., & Williams, R. (2015). Improving skills and care standards in the support workforce for older people: A realist synthesis of workforce development interventions.

Sakamuro, S., Stolley, K., & Hyde, C. (2015). *White paper: Purpose and audience.* Retrieved from owl.english.purdue.edu/owl/resource/546/1/

Salas, E., Bedwell, W. L., & Fiore, S. M. (2011). *Developing the 21st century and beyond workforce: A review of interpersonal skills and measurement strategies.* Paper prepared for the NRC Workshop on Assessing 21st Century Skills.

Sanders, J., Oomens, S., Blonk, R. W. B., & Hazelzet, A. (2011). Explaining lower educated workers' training intentions. *Journal of Workplace Learning*, *23*(6), 402–416. https://doi.org/10.1108/13665621111154412

Sandmann, L. R., Saltmarsh, J., & O'Meara, K. (2019). An integrated model for advancing the scholarship of engagement. *Building the Field of Higher Education Engagement: Foundational Ideas and Future Directions*.

Schaeffer, P. V., Kahsai, M. S., & Jackson, R. W. (2013). Beyond the rural-urban dichotomy: Essay in honor of Professor A. M. Isserman. *International Regional Science Review, 36*(1) 81-96. https://doi.org/10.1177/0160017612449981

Scully-Russ, E. (2013). Are green jobs career pathways a path to a 21st-century workforce development system? *Adult Learning, 24*(1), 6-13. https://doi.org/10.1177/1045159512467323

Scully-Russ, E., Rose, A. D., & Glowacki-Dudka, M. (2013). Green jobs: Job training and career pathways. *Adult Learning, 24*(1), 3-5. https://doi.org/10.1177/10451595112467778

Segal, C. (2012). Misbehavior, education, and labor market outcomes. *Journal of the European Economic Association, 11,* 743–779. https://doi.org/10.1111/jeea.12025

Selingo, J. J. (2017). *Reimagining the career center: How colleges can better engage and prepare a new generation of students for the 21st century workforce.* Retrieved

from www.entangled.solutions/portfolio/ reimagining-the-career-center

Silvennoinen, H., & Nori, H. (2017). In the margins of training and learning. *Journal of Workplace Learning, 29*(3), 185-199. https://doi.org/10.1108/jwl-08-2016-0072

Slack, T. (2014). Work in rural America in the era of globalization. In C. Bailey, L. Jensen, & E. Ransom (Eds.), *Rural America in a globalizing world: Problems and prospects for the 2010s* (pp. 573-590). Morgantown, WV: West Virginia University Press.

Slack, T., & Jensen, L. (2014). The great recession and America's underemployment crisis. Retrieved from https://scholars.org/contribution/great-recession-and-americas-underemployment-crisis

Smith, A., & Anderson, J. (2014). AI, robotics, and the future of jobs. *Pew Research Center*. Retrieved from http://www.fusbp.com/wp-content/uploads/2010/07/AI-and-Robotics-Impact-on-Future-Pew-Survey.pdf

Smith, T. J., Dillahunt-Aspillaga, C., & Kenney, C. (2015). Integrating customized employment practices within the vocational rehabilitation system. *Journal of Vocational Rehabilitation*, *42*(3), 201-208. https://doi.org/10.3233/jvr-150740

Snell, D. (2019). Vocational education and the revitalisation of manufacturing in the United States. *Journal of Vocational Education & Training, 71*(2), 239- 259. https://doi.org/10.1080/13636820.2018.1480520

Srivastava, A. I., & Hasan, A. (2016). Bridging the skill gap in India: Challenges and solutions. *JIMS8M: The Journal of Indian Management & Strategy*, *21*(1), 45-54. https://doi.org/10.5958/0973-9343.2016.00007.7

Stein, D. S., Wanstreet, C., & Trinko, L. A. (2011). From consideration to commitment factors in adults' decisions to enroll in a higher education degree program. *The Journal of Continuing Higher Education*, *59*, 61-76. https://doi.org/10.1080/07377363.2011.568820

Stubbings, C., & Williams, J. (2018). Workforce of the future: The competing forces shaping 2030. Retrieved from https://www.pwc.com/gx/en/services/people-organisation/publications/workforce-of-the-future.

Sung, J., & Ashton, D. N. (2014). Skills in business: The role of business strategy, sectoral skills development and skills policy. London: Sage.

Thiede, B. C., Lichter, D. T., & Sanders, S. R. (2015). America's working poor conceptualization, measurement, and new estimates. *Work and Occupations*. https://doi.org/0730888415573635.

Thiede, B. C., Lichter, D. T., & Slack, T. (2016). Working, but poor: The good life in rural America?. *Journal of Rural Studies*. https://doi.org/10.1016/j.jrurstud.2016.02.007

Thomas, D., & Brown, J. S. (2011). A new culture of learning: Cultivating the imagination for a world of constant change. *World Future Review (World Future Society)*, *3*(2), 115–117. Retrieved from https://www.journalofplay.org/sites/www.journalofplay.org/files/pdf-articles/4-1-book-review-1.pdf

Thomas, R. (2014). Office of the Governor. *Southern Virginia Works: Collaboration among three area community colleges to boost workforce credentials in Southern*

Virginia. Retrieved from

https://governor.virginia.gov/newsroom/newsarticle?articleId=6770

Torraco, R. J. (2016). The persistence of working poor families in a changing U.S. job

market: An integrative review of the literature. *Human Resource Development*

Review, *15*(1), 55-76. https://doi.org/10.1177/1534484316630459

Torraco, R. J., & Tuliao, M. (2014). The changing job market and workforce

development: Tracking a rapidly changing target. In J. Gedro (Ed.), *Academy of*

Human Resource Development Conference Proceedings. St. Paul, MN: Academy

of Human Resource Development, 719-727.

Tytler, R., Bridgstock, R. S., White, P., Mather, D., McCandless, T., & Grant-Iramu, M.

(2019). *100 jobs of the future*. Deakin University: Australia.

UNESCO. (2015). *Global report on adult learning and education.* Retrieved from

www.unesco.org/en/confinteavi/grale

U.S. Department of Education. (2012). *National Education Technology Plan 2010*.

Retrieved from www.ed.gov/technology/netp-2010/executive-summary

U.S. Department of Education. (2015). Making skills everyone's business: A call to

transform adult learning in the United States. Washington, DC

U.S. Department of Labor. (2011). *The public workforce system*. Washington, D.C.:

Author. Retrieved from www.doleta.gov/business/pws.cfm#how

U.S. Department of Labor (2015). The workforce innovation and opportunity act and

child care for low-income parents. *Washington, DC: Urban Institute.*

http://urbn.is/29DJejo.

Van Dam, N., & Guidone, J. (2018). Learning in the digital age. *BizEd*, *17*(2), 18-26.

    Retrieved from https://bized.aacsb.edu/articles/2018/03/learning-in-the-digital-age

Vijayalakshmi, V. (2016). Soft skills-the need of the hour for professional competence: A

    review on interpersonal skills and intrapersonal skills theories. *International*

    Journal of Applied Engineering Research, 11(4), 2859-2864. Retrieved from

    https://www.researchgate.net/publication/300051944

Voogt, J., Erstad, O., Dede, C., & Mishra, P. (2013). Challenges to learning and

    schooling in the digital networked world of the 21st century. *Journal of computer*

    assisted learning, *29*(5), 403-413. https://doi.org/10.1111/jcal.12029

Voogt, J., & Pareja Roblin, N. (2012). A comparative analysis of international

    frameworks: Implications for national curriculum policies. *Journal of Curriculum*

    Studies, *44*, 299–321. https://doi.org/10.1080/00220272.2012.668938

Wagner, C. (2013). Adult learning meets the green economy: Lessons from a green jobs

    education project. *Adult Learning*, *24*(1), 14-21.

    https://doi.org/10.1177/1045159512467324

Wandner, S. A., & Eberts, R. W. (2014). *Public workforce programs during the Great*

    Recession. Retrieved from www.bls.gov

Weedon, E., & Tett, L. (2013). Plugging a gap? Soft skills courses and learning for work.

    International Journal of Lifelong Education, *32*(6), 1-18.

    https://doi.org/10.1080/02601370.2013.773572

Williams, K., Robertson, T., Kieth, L., & Deal, A. (2014). Skills, knowledge and abilities

    employers seek in new professionals entering careers in the fed beef industry.

NACTA Journal, 58(4), 349-355. Retrieved from

https://www.jstor.org/stable/pdf/nactajournal.58.4.349.pdf?seq=1

Wolvin, A. D. (2012). Listening in the general education curriculum. *International*

Journal Of Listening, *26*(2), 122-128.

https://doi.org/10.1080/10904018.2012.678201

World Economic Forum. (2016). The future of jobs: Employment, skills and workforce

strategy for the fourth industrial revolution. In *Global Challenge Insight Report.*

World Economic Forum. Geneva, Switzerland.

World Economic Forum. (2017). Accelerating workforce reskilling for the fourth

industrial revolution: An agenda for leaders to shape the future of education,

gender and work. *World Economic Forum*. Geneva, Switzerland.

Wu, P. (2014). Training and employment notice no. 05-14. Department of Labor.

Retrieved from http://wdr.doleta.gov

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks,

CA: Sage Publications, Inc.

Young, J. R. (2013). *Middle-skill jobs remain more common among rural workers*.

Carsey Institute (Issue Brief No. 63). https://doi.org/10.34051/p/2020.196

Young Adult Library Services Association [YALSA]. (2013). *YALSA's national*

guidelines and white papers. Retrieved from http://www.ala.org

Zhou, Y., & Tyers, R. (2018). Automation and inequality in China. *China Economic*

Review. https://doi.org/10.1016/j.chieco.2018.07.008

Ziegler, J. (2015). Sector strategies: Aligning the skills of the workforce with the needs of

employers [Issue brief]. Retrieved from https://www.mathematica.org/our-

publications-and-findings/publications/sector-strategies-aligning-the-skills-of-the-

workforce-with-the-needs-of-employers

Appendix A: Research-Derived Policy Paper

Steps for Aligning WTC Programs with Local Business and Employer Needs

Executive Summary

New skill requirements have emerged, causing a shift in the structure of the U.S. economy from an industrial economy to a post-industrial service economy. The weakening of the labor market in the rural Southern United States caused many individuals to lose jobs due to economic globalization, outsourcing of employment, and technological innovation. The problem addressed by this report was to explore the need to align WTC curricula to improve the employability skills and lives of low-skilled, displaced, and unemployed workers. Today, a skilled workforce is mandatory for the growth in employment and the economy. As more businesses and employers become automated, the ability of workers to use automation is becoming essential in the workplace. The need for job training is necessary if workers want to remain competitive in a knowledge-based, automated society and to help low-skilled, displaced, and unemployed workers find and keep meaningful employment. The project resulting from this study is a policy recommendation for a white paper. This report summarizes the study and presents recommendations to increase employment opportunities for low-skilled, displaced, and unemployed adults who are looking to re-enter the job market. The outcome is that unemployed workers will gain greater access to training, jobs, and advancement opportunities through the WTC, and businesses and employers will gain greater access to qualified and productive workers.

Introduction

Many cities in the United States have experienced job loss due to a shift from industrial-based to information and service economies, as well as the outsourcing of labor jobs to overseas locations. This report is the result of a study I conducted to see whether the local WTC was adequately preparing low-skilled, unemployed, and displaced workers with employment proficiencies and technical skills needed to compete in today's job market, and to offer recommendations to improve employment opportunities for the low skilled, displaced, and unemployed workers in the local area. Evidence from workforce training literature suggested that adult workers need additional training and skills to meet the demands of a fast-paced, technology-driven, and ever-shrinking economy (Holzer, 2015; Torraco, 2016). With continued transitions in our economy, coupled with a society that relies on technology, WTCs must work collectively with employers to discuss new skill sets and knowledge needed by adults to contribute in meaningful ways (Jacobson, 2016; Office of the Governor, 2014a). The Governor called this initiative *The New Virginia Economy* because rural and southern Virginia economy needed to be overhauled (Office of the Governor, 2014b). Offering training through workforce development centers to the rural and southern communities help prepare low-skilled, displaced, and unemployed workers in finding and keeping meaningful jobs (Benbow & Hora, 2016; Jacobson, 2016). This report summarizes the study and presents research-derived recommendations on aligning the WTC program with local business needs, and improve employment opportunities for the low skilled, displaced, and unemployed workers living in the local area.

Background of Existing Problem

Adult workers living in rural areas have been disproportionately impacted by a lagging economy, and the outsourcing of jobs (Thiede, Lichter, & Slack, 2016). These layoffs transpired because of company and business downsizing and cutting costs, relocation or closures, and changes in technology (Slack & Jensen, 2014). The people affected by this shift was a generation of workers who earned good wages working in textile mills, in manufacturing and production companies, and some agricultural jobs that have closed or have been outsourced (Thiede et al., 2016). As a result, the changing economy placed low-skilled, displaced, and unemployed workers at a disadvantage when they attempted to compete against job candidates with more training and education (Torraco, 2016). To better meet the needs of business and industry in rural areas, the Governor of Virginia called for WTCs and workforce development and continuing education centers at community colleges to partner with employers to discuss and identify skills needed to train workers to meet the employers' present and future workforce demands (Office of the Governor, 2014b).

According to the Office of the Governor (2014b), the state suffered economically because there were not enough skilled and educated workers to meet the demands of the state's employers. In Virginia, the Governor's priority to improve the employment status of unemployed workers was a positive step toward strengthening the workforce and the state's economy (Office of the Governor, 2014b). Athreya, Neelakantan, and Romero (2014) reported an 11% unemployment rate for adult workers with minimal education compared to only 5% unemployment for individuals with a college degree. The authors

further reported the unemployment rate for adult workers without a high school education at 15.8%, compared to 6.3% for high school credentialed workers, and only 3.3% for college-educated workers (Athreya et al., 2014). Because the 2007-2009 recession caused many companies in the rural southeast to downsize, close, and relocate, the Office of the Governor (2014a) predicted 50,000 unemployed and low-skilled individuals would experience job growth, and employment as workforce development centers partner with employers to improve employability skills (Magsamen-Conrad et al., 2016; Office of the Governor, 2014a; Slack & Jensen, 2014).

In rural southeast Virginia, the Governor called for workforce training and workforce development centers to align their education and training programs with the needs of local businesses and employers in this region of Virginia (Office of the Governor, 2014b). The alignment of workforce training programs curricula was to include industry certifications and licenses/credentials to make these individuals more marketable while serving to improve their economic status in the region (Mitchell et al., 2010; Office of the Governor, 2014b). In the effort to ensure that economic growth and stability return to southern Virginia, it would be desirable for the workforce development centers throughout this region to meet with local businesses and employers to discuss needed skills and then train individuals for those jobs (WTC Director, personal communication; May 2015, January 2016). Accordingly, these new skills will prepare displaced and unemployed workers for 21st Century employment.

The unemployment rate soared from 1997 to 2003, with 1.5 million rural workers losing jobs (Bureau of Labor Statistics, 2015a). The layoff trend continued and worsened

during the recession of 2007 to 2009 when even more workers lost their jobs (Bureau of

Labor Statistics, 2015b). Similarly, the continuation of the displacement for low-skilled

workers was predicted, making it even more difficult for long-term displaced and

unemployed adults to obtain suitable work (Office of the Governor, 2014a). Hence, there

was a call for local businesses, organizations, companies, and communities to work

together to offer updated vocational, social, critical thinking, and high-tech workforce

training programs (Depken & Gaggl, 2016). Adult educators cannot afford to overlook

the ranks of low-skilled workers in the design of these new education initiatives. Aligning

workforce training programs with local business needs serve to improve the livelihood,

social well-being, and employment status for low-skilled, unemployed, and displaced

workers, even in rural areas (Benbow & Hora, 2016).

With the changing workplace and workforce in rural America, many adult

workers have found or concluded their jobs were not as secure as they once thought and

found themselves required to learn new skills and acquire new knowledge (UNESCO,

2015). Businesses and employers now desire employees with higher levels of technical

expertise to run basic computer equipment such as connecting and disconnecting to

printers, accessing the Internet, and conducting conference calls (Torraco, 2016). It is

important for WTCs to partner with businesses and employers to provide every

opportunity for low-skilled, displaced, and unemployed workers to learn, grow, and adapt

as productive workers capable of handling the demands and changes of the workplace

(Mahmud, Parvez, Hilton, Kabir, & Wahid, 2014). It may also be necessary for WTCs to

provide on-the-job technical training for businesses and company employees. As adults

return to school to upgrade employability skills, workforce development centers need to respond to goals and objectives that align with the employers' needs to be truly useful (Holzer, 2015; Srivastava & Hasan, 2016).

Summary of Analysis and Findings

Summary of Analysis

The purpose of the study was to explore the needs of local businesses and employers and determine the extent to which the WTC has aligned its certificate and training programs for low-skilled, displaced, and unemployed workers to meet those needs. A case study approach was used for the inquiry. While other qualitative methods were considered, the case study was the best fit to answer this study's research questions. I was able to collect and examine data from the local businesses and the WTC to see whether the WTCs training and certificate programs were meeting the business needs of the region. The population comprised of participants from local businesses and employers and one WTC site. The sample consisted of 11 participants employed as human resource directors, managers, and supervisors that are responsible for hiring skilled individuals for their business and one WTC director who provided trained and proficient workers to meet the demands of local businesses and employers.

The data analysis revealed that the three classes of skills (academic, specialized or technical, and soft) were important when hiring low-skilled employees. The participants reported that the three classes of skills were necessary for daily job function and played an important role when interacting with people and dealing with clients, co-workers, and supervisors. While the interview results affirmed that the three classes of skills are

important for a successful career and are necessary on a daily basis, they also reported

that specialized skills for each position are taught once an applicant was hired. The

participants added soft skills included the character of an employee and generally

evaluated at the time of the interview. In the retail sales industry, employers want

employees with excellent customer skills (including verbal communication). The

majority of employers and businesses seek employees with excellent customer skills such

as being patient, pleasant, dependable, understanding, flexible; have a positive attitude,

can multi-task, and the ability to get along with others. These are essential employability

skills, and they are also skills that help employees retain their jobs once hired.

The data analysis indicated that not all employers utilize the training and

certification programs provided by the WTC. For example, individuals who work in fast-

foods, grocery, restaurants, and the retail-sales industry received their training from the

lead worker, supervisor, or assistant manager. Cashiers received training from the lead

cashier or front-end manager. The managers take online training and learning through a

store/company program. The fast-food and grocery industry participants shared they have

never used and were not familiar with the WTC. As a result, the participant shared they

would hire graduates from the local WTC, and those who do not use WTC services said

they would consider employing graduates from the local WTC, now that they know about

this resource.

As such, the data analysis showed that employers or businesses expect employees

to have some knowledge of basic computer skills because computers are used in every

aspect of job employment. Technology or computer skills are used for everything from

accessing the Internet, creating emails, using word processing, and any of the other

Microsoft Office skills. Employers or businesses expect excellent communication skills

where their employees can verbalize information to the customers and help when needed.

Employers or businesses expect their employees to demonstrate sound work ethics, such

as being pleasant, courteous, and helpful to customers. Employers or businesses want

their workers to show knowledge of basic skills such as reading, writing, and speaking

when dealing with individuals.

Summary of Findings

Research findings revealed that unemployed workers need employability skills to

re-enter today's job market. The key to producing a 21st-century workforce is to train

new employees (Bharti, 2014). In order to retain qualified workers, they, too, need

training with the skills essential to competing in the new job market (Brynjolfsson &

McAfee, 2014). Significant also was the need to examine curricula that purport to prepare

and certify students to fill those jobs. For adult workers, attending WTCs can provide the

opportunity for them to enhance learning and skills training to meet the challenges of

21st-century workplaces. For low-skilled, displaced, and unemployed adults living in

rural areas, providing advanced training will boost adult success and promote

sustainability in the workforce (Chopra, 2016).

The communication explosion, the age of information, computerization, and the

industrial revolution brought new kinds of jobs and new applications of learning. Adults

started returning to school for various reasons, including professional needs (Bharti,

2014; Lyons, Ng, & Schweitzer, 2014). Understanding the context of adults going back

to school was essential to providing them with quality learning experiences (Brynjolfsson

& McAfee, 2014). With these trends, many nonprofessional positions, career switchers,

displaced workers, those afraid of being replaced, and those capable of advancement

within the organizations saw going back to school a chance to improve their skill sets

(Brynjolfsson & McAfee, 2014). Understanding employer needs and adapting knowledge

and skills training to meet the needs of a changing workforce, therefore, is vital to

growing economies wherein adult workers can progress and be productive (Lyons, et al.,

2014). For adult workers, attending WTCs provided the opportunity for them to enhance

learning and skills training to meet the challenges of 21st-century workplaces.

The findings showed that the employer participants viewed basic skills such as

reading, writing, speaking, listening, and math as essential skills for employment. The

participants also viewed technology skills as very important when hiring individuals for

entry-level and full-time management positions, as cashiers, and as medical or lab

technicians. In sum, academic, technical, and soft skills are all important for daily job

functioning and play a vital role when interacting with people and dealing with

customers, co-workers, and supervisors. What is more, employers seek employees able to

follow directions, exhibit good communication skills, demonstrate good character, and a

positive attitude while offering good customer service assistance when needed.

Additionally, the findings disclosed that not all employer participants utilized the

skills training and certification programs provided by the WTC. However, they will

consider hiring individuals who attended and graduated from the local center. Likewise,

the WTC did not offer skills training and programs related to the fast food and quick-

serve restaurant service industry but would assist individuals looking for employment

with the mock interview process. Similarly, the WTC did not assist with human services

or business administrative services jobs or positions. However, when there was a demand

for skilled individuals or a need for certified individuals by an employer or a business, the

WTC provided the training to the employee for the employer. Based on the findings of

this study, the most appropriate project deliverable was deemed to be this white paper

policy recommendation report.

Evidence from Literature and Research

Evidence from Literature

In reviewing the scholarly literature, the concern for the next few decades were

jobs, and how to keep the present ones while creating new ones. A cause for this concern

was the speed at which technology was advancing, which could affect businesses and

decrease human capital in the production of goods and services (Choi, & Kang, 2019). A

report from the World Economic Forum (2017) estimated that by 2020 technology would

produce approximately 2.1 million new jobs while at the same time would be responsible

for the loss of about 7.1 million jobs. As the technological trend continues, it would lead

to worker displacement, increased income inequality, and create permanent

unemployable workers (Kristal, & Cohen, 2015; Smith & Anderson, 2014). Zhou and

Tyers (2018) proclaimed that this job loss would affect developing countries the most

because many of the outsourced manufacturing and service jobs would be among the first

to be automated. Thus, as we advance to an autonomous economy, managers and

policymakers must develop effective strategies and policies to extend job opportunities

and cope with the real possibility of lasting technological unemployment (Choi & Kang, 2019).

The current job market is competitive. Industries that once required entry-level workers to have a high school diploma now need workers with specialized occupational skills (Ziegler, 2015). Today, a skilled workforce is mandatory for growth in employment and the economy. As more businesses and employers automate tasks and incorporate artificial intelligence, the ability of workers to use these tools to manage these tasks is becoming essential in the workplace (National Academies of Sciences, Engineering, & Medicine, 2017; OECD, 2018). A recent report by *BizEd* stated that workers could no longer expect to be employed at one or two firms for their entire careers, using the skills they mastered in their 20s (Van Dam & Guidone, 2018). This situation means that WTCs, as well as higher education institutions, must be ready to provide the required skills to ensure that tomorrow's workers are employable for as long as they can work (Van Dam & Guidone, 2018). New skill requirements have emerged, thus shifting the structure of the U.S. economy from an industrial economy to a post-industrial service economy (Editorial, 2013). These skills are part of the employability skills, job readiness skills, as well as the skills employees need and employers want (Harun, Salleh, Baharom, & Memon, 2017; MacDermott & Ortiz, 2017; Nisha & Rajasekaran, 2018).

A report from the World Economic Forum (2017) described the changes in technology, demographics, and businesses as the Fourth Industrial Revolution, and credited this movement with altering the skills needed for today's labor market (Hasan, Wilkins, McShane, Arzaga, & Lachman, 2019). As digitalization, automation, robotics,

and artificial intelligence create opportunities for the economy, so do the many

challenges for the future of the workforce (Lyons, Zucchetti, Kass-Hanna, & Cobo,

2019). Only those companies that stay abreast of technological breakthroughs will

survive, and only those workers who want to remain competitive by re-educating

themselves will continue to find jobs (Van Dam & Guidone, 2018). The need for job

training is necessary if workers want to remain competitive in a knowledge-based,

automated society (Cummins, Yamashita, Millar, & Sahoo, 2019). Ensuring that the labor

force has the skills and training needed to gain and keep employment is and will continue

to be a key function of WTCs (Ziegler, 2015).

Recent literature posits that aligning training with industry needs ensures the

availability of highly skilled, technically trained workers with industry-relevant

qualifications (Pima Association of Governments PAG, 2017). Additional literature

review agreed that alignment and prioritization start with the identification of specific

needs such as occupation-specific skills, apprenticeships, and worker re-entry programs

(Eades & Hughes, 2017; Snell, 2019). Adult workers attending WTCs have the

opportunity to enhance their education and skills training to meet the tasks of the 21st-

century workplace. Thus, as job markets continue to expand and skill-sets evolve,

improving the alignment between workforce initiatives and industry needs will continue

to be a priority (Van Dam & Guidone, 2018).

Evidence from Research

As state economies continue to grow and put more people to work, finding skilled labor is the most significant challenge facing many competitive American businesses (Buckwalter & Togila, 2019). Research indicated there is a revolution occurring in the world of work where almost every job will be affected by globalization, technological progress, and demographic change (OECD, 2017; Tytler, Bridgstock, White, Mather, McCandless, Grant-Iramu, 2019). The next few decades will witness a change to current jobs, the disappearance of some jobs entirely, and the creation of new jobs that do not yet exist (Tytler et al., 2019). Hence, the change most noticeable is in the areas of retail, entertainment, health care, manufacturing, and education as technology advances (Tytler et al., 2019). The forces pushing this revolution are automation, robotics, the Internet, climate change, globalization, and an aging and increasing population (OECD, 2017).

The forces shaping the future workforce are artificial intelligence, robotics, automation and digital transformation with ever-smarter machines performing more human tasks; globalization in which our workforce is going global and the global workforce coming to us; and collaboration with many jobs, with many employers all at the same time (Foundation for Young Australians, 2017a, 2017b). We are living through significant and world-changing times. If people are to remain employable, they need to acquire and develop new skills. These skills not only refer to technical knowledge and skills, but also to soft skills like collaborative capability, empathy, and entrepreneurial skills (Tytler et al., 2019). Whether experts predict the mass elimination of jobs or the creation of more new jobs (AlphaBeta, 2017), the consensus is that changes occurring in the labor market will be significant, substantial, and likely to require a large proportion of

the workforce to engage in retraining, reskilling and lifelong learning (Riad, 2017; Silvennoinen & Nori, 2017). Research indicated that the entire population is living in a technological transformation age in the way we work and conduct business (Stubbings, & Williams, 2018). Researchers also agree that if we want to avoid the significant social dislocation caused by the speed of technological advances and changes, we need policymaking to include businesses and employers working collaboratively to address these innovations and how to ease the fear of an automated society (Bakhshi, Downing, Osborne, & Schneider, 2017).

Recommendations

The goal is to increase employment opportunities for low-skilled, displaced, and unemployed adult workers looking to re-enter the job market. The workforce development approach is to help workers obtain skills through training programs and other skilled services developed in response to employer demands. Research shows improvements can increase earnings and improve job quality for all unemployed or under-skilled workers or workforce in the region. Based on the findings of this project study and the scholarly literature, the following research-derived strategies are recommended.

Recommendation #1 – Retention, Collaboration, and Technologies: The WTC partner with local businesses to discuss strategies to help businesses recruit and retain workers, work collectively to improve compensation packages that are competitive with other employers and industries, and incorporate new technologies by creating and providing applicable training (Ziegler, 2015).

Recommendation #2 – Skill Alignment and Changing Needs: The WTC and the local businesses and employers partner to discuss nuanced alignment of curricula according to the changing needs of local businesses and employers. Forming a partnership can affect how local businesses, employers, WTCs, public workforce agencies, and education and other training providers collaborate to create broader change (Ziegler, 2015).

Recommendation #3 – Networking About the Availability of Training: The WTC notify businesses and employers with information about its availability to assist in the development and delivery of training and certificate programs for supervisors, managers, and employees new to leadership positions (Messina, 2017).

Recommendation #4 – Early and Continuing Career Counseling: The WTC assist adult students or working adults with career exploration and preparation to identify specific career interests (Carlson, 2017). Starting this process early allows the adult working student to learn about the different career options available while developing professional working skills (Selingo, 2017).

Recommendation #5 – Job Fairs, Internships, and Externships: The WTC and local businesses host job fairs and networking events so adult students looking for employment can meet and talk with employers in a career field of interest. Offering paid internships and externships as hiring incentives to workers seeking employment (Carlson, 2017).

Recommendation #6 – Resourcing for New Hires: Businesses and employers utilize WTC services to search for applicants with the skills and competencies needed to work for their company (Hudson & Klein-Collins, 2018).

Recommendation #7 – Chamber of Commerce Membership: The WTC join and maintain active membership in the local Chamber of Commerce to facilitate networking and collaboration with the business community that it supports.

Conclusion

The alignment of the workforce training curricula requires programs to provide education to facilitate obtaining industry certifications, licenses, and credentials to make the WTC worker students more employable. With the changing workplace and workforce, businesses and employers need workers with the right skills. The outcome is the low skilled, displaced, and unemployed workers gain access to training, jobs, and advancement opportunities from attending the WTC. In contrast, businesses and employers have access to a qualified and productive workforce (Ziegler, 2015).

One thing is certain: The coming decades will bring change. Some current jobs will disappear, and new jobs that do not yet exist will emerge. All jobs will be affected by globalization, technological progress, and demographic changes. For WTCs and other education entities to remain relevant through these changes, they will need a protocol and method to ensure their curricula speak to the needs of the employers who hire their graduates.

References

AlphaBeta. (2017). *The Automation Advantage*. Retrieved from www.alphabeta.com/wp-

 content/uploads/2017/08/The-Automation-Advantage.pdf

Athreya, K., Neelakantan, U., & Romero, J. (2014). Expanding the scope of workforce

 development. Federal Reserve Bank of Richmond. *Richmond Federal Economic*

 Brief, (May), 1-6. Retrieved from

 https://www.richmondfed.org/~/media/richmondfedorg/publications/research/eco

 nomic_brief/2014/pdf/eb_14-05.pdf

Bakhshi, H., Downing, J., Osborne, M., & Schneider, P. (2017). *The Future of Skills:*

 Employment in 2030. London: Pearson and Nesta.

Benbow, R. J., & Hora, M. T. (2016). The cultural nature of valued skills: A qualitative

 investigation of postsecondary science education and the "skills gap" in

 Wisconsin. WCER Working Paper No. 2016-06. *Wisconsin Center for Education*

 Research. Retrieved from

 http://www.wcer.wisc.edu/publications/workingPapers/papers.php

Bharti, N. (2014). The role of training in reducing poverty: The case of microenterprise

 development in India. *International Journal of Training and Development*, *18*,

 291-296. https://doi.org/10.1111/ijtd.12042

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and*

 prosperity in a time of brilliant technologies. New York, NY: W.W. Norton.

Buckwalter, V., & Togila, J. (2019). Accelerating opportunity in rural regions: Designing

 pathway programs for adults and other non-traditional learners. In *Jobs for the*

Future. Retrieved from https://files.eric.ed.gov/fulltext/ED594024.pdf

Bureau of Labor Statistics. (2015a). Labor force statistics from the current population survey. Retrieved from www.bls.gov/web/empsit/cpseea10.htm

Bureau of Labor Statistics. (2015b). Preliminary 2014 data on employment status by state and demographic group. Retrieved from www.bls.gov/lau/ptable14full2014.pdf

Carlson, S. (2017). *The future of work: How colleges can prepare students for the jobs ahead.* Washington, DC: The Chronicle of Higher Education. Retrieved from store.chronicle.com/products/the-future-of-work.

Choi, D. Y., & Kang, J. H. (2019). Introduction: The future of jobs in an increasingly autonomous economy. *Journal of Management Inquiry*, 28(3), 298-299. https://doi.org/10.1177/1056492619827373.

Chopra, A. (2016). Solve unemployment with open data. *Democracy*: *A Journal of Ideas*, 39, 41-43. Retrieved from https://democracyjournal.org/magazine/39/solve-unemployment-with-open-data/

Cummins, P. A., Yamashita, T., Millar, R. J., & Sahoo, S. (2019). Problem-solving skills of the U. S. workforce and preparedness for job automation. *Adult Learning, 20*(10). https://doi.org/10.1177/1045159518818407

Depken, C. A., & Gaggl, I. P. (2016). The impacts of ending long-term unemployment insurance: Evidence from North Carolina. Working Paper No. 2016-001. Retrieved from pdfs.semanticscholar.org/4588/634ffc569bd4510fc1391eb43e27191966e6.pdf

Eades, D. C., & Hughes, D. W. (2017). Too few skills for some, too many skills for

others: Are future rural employment opportunities a poor match for the rural labor

supply? *Career & Technical Education Research, 42*(2), 79-102.

https://doi.org/10.5328/cter42.2.79

Foundation for Young Australians (FYA). (2017a). The new work order: Ensuring young

Australians have skills and experience for the jobs of the future, not the past.

Retrieved from http://www.fya.org.au/wp-content/uploads/2015/08/fya-future-of-

work-report-final-lr.pdf

Foundation for Young Australians (FYA). (2017b). The new work smarts: Thriving in the

new work order. Retrieved from https://www.fya.org.au/report/the-new-work-

smarts/

Harun, H., Salleh, R., Baharom, M. N. R., & Memon, M. A. (2017). Employability skills

and attributes of engineering and technology graduates from employers'

perspective: Important vs. satisfaction. *Global Business and Management*

Research: An International Journal, 9(1), 572-580.

Hasan, A., Wilkins, L., McShane, K., Arzaga, A., & Lachman, R. (2019). *Ryerson*

university zone learning: A pilot evaluation of 21st century skills. Incubate

Innovate Network of Canada. Retrieved from http://www.iincanada.ca/wp-

content/uploads/2019/03/IINC-19_WPP_21stCenturySkills.pdf

Holzer, H. (2015). Raising job quality and skills for American workers: Creating more-

effective education and workforce development systems in the states. Retrieved

from

https://www.hamiltonproject.org/assets/legacy/files/downloads_and_links/11_wor

kforce_holzer_paper.pdf

Hudson, S., & Klein-Collins, R. (2018). More than just a job search: Relevant,

intentional, and accessible career services for today's student and returning adults.

The Council for Adult and Experiential Learning. Retrieved from www.cael.org

Jacobson, E. (2016). Workforce development rhetoric and the realities of 21st century

capitalism. *Literacy & Numeracy Studies, 24*(1), 3-22.

https://doi.org/10.5130/lns.v24i1.4898

Kristal, T., & Cohen, Y. (2015). What do computers really do? Computerization, fading

pay-setting institutions and rising wage inequality. *Research in Social

Stratification and Mobility*, *42*, 33-47. https://doi.org/10.1016/j.rssm.2015.07.001

Lyons, A. C., Zucchetti, A., Kass-Hanna, J., & Cobo, C. (2019). The future of work and

education for the digital age: Bridging the gap between digital skills and

employability for vulnerable populations. Retrieved from

https://www.researchgate.net/publication/332013345_Bridging_the_Gap_Betwee

n_Digital_Skills_and_Employability_for_Vulnerable_Populations

Lyons, S. T., Ng, E. S., & Schweitzer, L. (2014). Changing demographics and the

shifting nature of careers: Implications for research and human resource

development. *Human Resource Development Review*, *13*(2), 181-206.

https://doi.org/10.1177/1534484314524201

MacDermott, C., & Ortiz, L. (2017). Beyond the business communications course: A

historical perspective of the where, why, and how of soft skills development and

job readiness for business graduates. *The IUP Journal of Soft Skills, 11*(2), 7-24.

Retrieved from https://www.researchgate.net

Magsamen-Conrad, K., Dillon, J. M., Hanasono, L. K., & Valdez, P. A. (2016).

Developing an intergroup communication intervention curriculum: Enhancing

workforce skills across generations. In *Developing Workforce Diversity*

Programs, Curriculum, and Degrees in Higher Education, 140-161.

Mahmud, K. T., Parvez, A., Hilton, D., Kabir, G. M. S., & Wahid, I. S. (2014). The role

of training in reducing poverty: The case of agricultural workers receiving

microcredit in Bangladesh. *International Journal of Training and Development*,

18, 282-290. https://doi.org/10.1111/ijtd.12039

Messina, J. (2017). Making the connection: Aligning NYC's small businesses and the

workforce development system. *Center for an Urban Future*. Retrieved from

www.nycfuture.org

Mitchell, G. W., Skinner, L. B., & White, B. J. (2010). Essential Soft Skills for Success

in the Twenty-First Century Workforce as Perceived by Business Educators.

Delta Pi Epsilon Journal, *52*(1). Retrieved from

https://search.proquest.com/openview/e1e4492ba524f4ae699ab205fc6aafd6/1?pq-

origsite=gscholar&cbl=34490

National Academies of Sciences, Engineering, & Medicine. (2017). Building America's

skilled technical workforce. National Academies Press.

Nisha, S. M., & Rajasekaran, V. (2018). Employability skills: A review. *IUP Journal of*

Soft Skills, 12(1), 29-37. Retrieved from

https://search.proquest.com/openview/1f9f5ad8e5798a6b992e4c1bee830cbb/1?pq

-origsite=gscholar&cbl=2029989

OECD. (2017). *Future of Work and Skills.* Paper presented at the 2nd meeting of the G20

employment working group. Hamburg, Germany.

OECD. (2018). Transformative Technologies and Jobs of the Future: Background report

for the Canadian G7 Innovation Ministers' Meeting, (March). Retrieved from

www.oecd.org/sti/inno/transformative-technologies-andjobs-of-the-future.pdf

Office of the Governor. (2014a). *Establishing the new Virginia Economy workforce*

initiative. Retrieved from www.vec.virginia.gov

Office of the Governor. (2014b). *Southern Virginia works: Collaboration among three*

area community colleges to boost workforce credentials in Southern Virginia.

Retrieved from governor.virginia.gov/newsroom

Pima Association of Governments PAG. (2017). Building a skilled workforce: The

Tucson Region's Aerospace and Defense Cluster–workforce needs and

opportunities in aviation technology – issue white paper. Retrieved

https://www.pagregion.com/documents/economic/WorkforceNeedsAndOpportuni

tiesInAviationTechnologyIssueWhitePaper2017-12-07.pdf

Riad, N. (2017). Education for life: Labor markets are changing, and millennials must

prepare and adjust. *Finance and Development, International Monetary Fund*

(IMF), 54(2). Retrieved from

https://www.imf.org/external/pubs/ft/fandd/2017/06/riad.htm

Selingo, J. J. (2017). *Reimagining the career center: How colleges can better engage and*

prepare a new generation of students for the 21st century workforce. Retrieved

from www.entangled.solutions/portfolio/ reimagining-the-career-center

Silvennoinen, H., & Nori, H. (2017). In the margins of training and learning. *Journal of Workplace Learning, 29*(3), 185-199. https://doi.org/10.1108/jwl-08-2016-0072

Slack, T., & Jensen, L. (2014). The great recession and America's underemployment crisis. Retrieved from https://scholars.org/contribution/great-recession-and-americas-underemployment-crisis

Smith, A., & Anderson, J. (2014). AI, robotics, and the future of jobs. *Pew Research Center.* Retrieved from http://www.fusbp.com/wp-content/uploads/2010/07/AI-and-Robotics-Impact-on-Future-Pew-Survey.pdf

Snell, D. (2019). Vocational education and the revitalisation of manufacturing in the United States. *Journal of Vocational Education & Training, 71*(2), 239- 259. https://doi.org/10.1080/13636820.2018.1480520

Srivastava, A. I., & Hasan, A. (2016). Bridging the skill gap in India: Challenges and solutions. JIMS8M. *The Journal of Indian Management & Strategy*, *21*(1), 45-54. https://doi.org/10.5958/0973-9343.2016.00007.7

Stubbings, C., & Williams, J. (2018). Workforce of the future: The competing forces shaping 2030. Retrieved from https://www.pwc.com/gx/en/services/people-organisation/publications/workforce-of-the-future.

Thiede, B. C., Lichter, D. T., & Slack, T. (2016). Working, but poor: The good life in rural America? *Journal of Rural Studies*. https://doi.org/10.1016/j.jrurstud.2016.02.007

Torraco, R. J. (2016). The persistence of working poor families in a changing U.S. job

market: An integrative review of the literature. *Human Resource Development Review*, *15*(1), 55-76. https://doi.org/10.1177/1534484316630459

Tytler, R., Bridgstock, R. S., White, P., Mather, D., McCandless, T., & Grant-Iramu, M. (2019). *100 jobs of the future*. Deakin University: Australia.

UNESCO. (2015). *Global report on adult learning and education.* Retrieved from www.unesco.org/en/confinteavi/grale

Van Dam, N., & Guidone, J. (2018). Learning in the digital age. *Bized, 17*(2), 18-26. Retrieved from https://bized.aacsb.edu/articles/2018/03/learning-in-the-digital-age

World Economic Forum. (2017). *Accelerating workforce reskilling for the Fourth Industrial Revolution.* Retrieved from www.weforum.org/whitepapers/accelerating-workforce-reskilling-for-the-fourth-industrial-revolution

Zhou, Y., & Tyers, R. (2018). Automation and inequality in China. *China Economic Review*. https://doi.org/10.1016/j.chieco.2018.07.008

Ziegler, J. (2015). Sector strategies: Aligning the skills of the workforce with the needs of employers [Issue brief]. Retrieved from https://www.mathematica.org/our-publications-and-findings/publications/sector-strategies-aligning-the-skills-of-the-workforce-with-the-needs-of-employers

Appendix B: Business and Employer Interview Protocol

Date: _____ Start Time: _____ End Time: _____

Location: _____

Researcher: _____

Interviewee: _____

Pre-Interview/Introduction:
1. Thank the interviewee for participating in the study.
2. Review with the employer participant the rationale for the study, the purpose of the interview, data that will be collected, and confidentiality and protection of identity. Review the informed consent form and have participant sign it if not already signed.
3. Inform the participant that I would like to audio record the interview to have an accurate record of our conversation and obtain their permission for recording. I will set up the recording device.
4. Inform the participant that the interview will not exceed 60 minutes.
5. Ask to clarify anything for the participant before proceeding.

Demographic Information
1. What is your position?
2. How long have you been in this position?
3. What are your level and educational background?

Interview Questions:
Please share your views, perceptions, and experiences as a supervisor, manager, or human resource staff for your employer or business.
1. What type of business do you operate?
2. How does your company hire employees? What method(s) do you use?
3. Explain typical reasons applicants are rejected or not qualified for a position.
4. What skills and abilities do you seek when hiring?
5. Do you seek applicants with a certain type of qualification, certificate, degree, or advanced training?
6. What communication skills are needed for successful employment at your business?
7. What skills are needed for employment at your business?
8. Please explain the level of computer skills needed by your employees.
9. What types of training do you require of your employees?
10. Where and how do your employees receive their ongoing training?

11. Please rate the relative importance of academic skills (reading, writing, and arithmetic), technical (specialized) skills, and soft skills (people/personal responsibility skills) when hiring new employees?
12. How would you rate the above three classes of skills (academic, specialized/technical, and soft) in relative importance for a successful career for your employees.
13. Of the three academic skills, what is most important and why?
14. If technical skills are important, please identify what specific technical skills are important and why.
15. If soft skills are important, please identify which one(s) are most important.
16. Do you use the local Workforce Training Center (WTC) as one resource to recruit or hire individuals? If so, do you feel they adequately prepare individuals to work at your business?
17. If you do not currently consider graduates from the local WTC for employment at your company, please share any thoughts or ideas about anything the WTC could add or do differently to better prepare graduates for employment in your business?
18. Is there anything you would like to add or share that has not already been discussed?

Post-Interview
1. Thank participant for their meaningful involvement and reassure confidentiality.
2. Establish future contact with the participant for member checking after data has been transcribed and analyzed.

Appendix C: Workforce Training Director Interview Protocol

Date: _____ Start Time: _____ End Time: _____

Location: _____

Researcher: _____

Interviewee: _____

Pre-Interview/Introduction:
1. Thank the participant for their meaningful involvement in the study.
2. Review with the participant the rationale for the study, the purpose of the interview, the kind of data that will be collected, and confidentiality and protection of identity.
3. Review the informed consent form and have participant sign it if not already signed.
4. Inform the participant that I would like to audio record the interview to have an accurate record of our conversation and obtain their permission for recording. I will set up the recording device.
5. Inform the participant that the interview will not exceed 60 minutes.
6. Ask to clarify anything for the participant before proceeding.

Demographic Information
1. What is your position?
2. How long have you been in this position?
3. What is your educational background?

Interview Questions:
Please share your views, perceptions, and experiences as the workforce training director.
1. We have already communicated and agreed that certain types of WTC documents will be helpful in my efforts to learn more about the WTC's vision, mission, accreditation, training, and certificate programs offered. Please suggest any other documents that you think might be helpful to my study.
2. Please tell me about the population of students you serve at the WTC. What does your typical student look like?
3. Please share the kinds of skills training and certificate programs currently offered by your training center?
4. If there are any skills training or certificate programs being considered for addition or currently under development for future implementation, please tell me about them.
5. If there are any skills training or certificate programs currently being reviewed or considered for program deletion, please tell me about those.

6. Please share the primary sources for your curricular inputs. Who suggests or mandates which training and certificate programs are offered by the WTC?
7. Is there a demand from employers and businesses for specific training and certificate programs to be offered? How does that communication between the WTC and community work or manifest?
8. How much leeway do you and your faculty/staff have in creating, modifying, or deleting training and certificate programs?
9. Please describe the basic design or structure of your training and certificate programs (e.g. format, duration, etc.)?
10. What is your perception of the impact of the workforce training and certificate programs on participants' lives?
    a. Are the participants' satisfied with the skills gained as a result of your training program curriculum?
    b. Do your training and certificate programs improve the participants' chances for employment?
11. Please share a quick story where a student's life was positively impacted by their experience with the WTC.
12. In what ways are your training and certificate programs customized for various employers? Can you provide any examples?
13. What else would be useful to know about workforce training and certificate programs?
14. Is there anything you would like to add or share that has not already been discussed?

Document Review
1. Vision and mission documents
2. Accreditation documents
3. Training curriculum documents
4. Certificate program documents

Post-Interview
1. Thank participant for their meaningful participation and reassure confidentiality.
2. Establish future contact with the participant for member checking after data has been transcribed and analyzed.