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Association Between Recruiters' Perceptions of Education Delivery Mode and Applicants' Workplace Readiness

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This is to certify that the doctoral study by

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Abstract

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EDD, Walden University, 2019

MSL, Walden University, 2013

BSB, University of Phoenix, 2011

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The academy, its faculty, and recruiters have discordant views about credentialed graduates' workplace viability. As the powerful gatekeepers between education and the employment market, recruiters' perceptions of college credentials may dictate applicants' interview progression. Although nearly 100% of today's college administrators believe higher education programs prepare students for the workplace, less than 12% of recruiters deem graduates ready to succeed in organizational settings after graduation. The purpose of this study was to investigate differences in recruiters' perceptions of online and face-to-face higher education credentials as indicators of applicants' workplace readiness. The theoretical foundation of this study was Spence's signaling theory grounded on the traditional premise that academic credentials profoundly benefit college graduates. Topics of inquiry were recruiters' perceptions of college degree importance, the applicability of online and face-to-face higher education credentials, academic rigor, educational quality, credential trustworthiness, and applicants' workplace and leadership readiness. A non-experimental cross-sectional Higher Education and Workplace Readiness Survey comparative design provided quantitative data from 159 recruiters and was analyzed with *U*, *H*, and *t* tests. Recruiters viewed academic credentials as important to applicants' workplace readiness, yet perceived that online college degree programs lack academic rigor and educational quality. Online bachelors, masters, and doctorate credentials were viewed as inferior to and less trustworthy than face-to-face credentials. Positive social change can occur when academic and organizational leaders collaborate to build principled degree programs around essential job skills, so graduates and recruiters view all academic credentials as trusted predictors of career readiness that benefit society.

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Dedication

This dissertation is dedicated to my wife Marlene, mother Elaine, and grandparents Sam and Anne Kaplan, who always believed that completing a college education program is an extremely important pathway to a successful life. All of you dedicated your lives to serving your communities and helping other people improve their health, quality of life, and social circumstances. The love and wisdom you shared is the foundation of my faith and resilience and continually makes a tremendous difference in my grit and commitment. I have embraced and cherished your values constantly in my navigation through this exceptionally rewarding educational journey.

In the spirit of Marlene and my grandparents, I hope this dissertation will substantially benefit all students who decide to embrace postsecondary education in search of personal improvement in pursuit of their chosen careers. I have learned that the purpose of education is mastering life-altering information, skills, and knowledge to empower the human quest to lead productive and rewarding lives. The successful transition from college to the workplace ultimately manifests in decision-making, empowering actions in pursuit of community goals for promoting harmony, resolving conflict, and improving quality of life throughout society. Educational opportunity and achievement embody dreams toward sustainable lifestyles and community connection; personifying the faith, human values, and societal development that will inspire human development far into the future. Marlene, Sam, and Anne are surely proud and smiling with God from heaven.

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First and foremost, I wish to thank my wife, Marlene, without whom the completion of this dissertation would not have been possible. God gave Marlene a new purpose in 2019, and she will witness the conferral of this degree from heaven. Marlene and I always shared our love, hearts, souls, and minds in a once in a lifetime relationship of marriage, my human savior, and true partner in life. Marlene shared my passion for education and willingly donated large amounts of her time to ensure my success. Marlene was eagerly anticipating the actualization of my doctoral degree. By virtue of our everlasting partnership, Marlene is and forever will be, Mrs. Dr. Alan.

I am also grateful to my mother, Elaine, for the everlasting love and support she has given to me toward the completion of this journey. Elaine gave me time and perspective in conversations and valuable feedback when reading and expertly reviewing many, many drafts of my work. Marlene and Elaine's love, faith, belief, and support will continually inspire me to fulfill my calling as an adult educator, leader, and mentor, as I strive to foster purposeful, positive change in academic and organizational communities.

I wish to thank my chair, Dr. Ioan Ionas, and committee members Dr. Joanna Karet and Dr. Kelly Hall, for their guidance throughout my research project. I appreciate your expertise, encouragement, advice, and attention to detail. I also thank my Walden professors, who inspired me to enroll in a doctoral degree program while completing my Master of Science in Leadership. Dr. Gina Smith, Dr. Pettis Perry, and Dr. Marilys Taylor are cherished colleagues who encouraged my progress throughout my studies. My academic colleagues, both students, and instructors, by virtue of discussions, challenge, and evaluation, helped me actualize proficient scholarship worth sharing.

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Chapter 1: Introduction to the Study

Despite the fact that recruiters (employment recruiters, talent managers, and employment managers) across the global employment marketplace play vitally important roles in the hiring process, empirical academic research studies about their perceptions of job candidates' academic achievements and workplace qualifications are sparse. Many organizations hire recruiters to act as gatekeepers, financially compensated employer representatives responsible for assessing applicants' job qualifications and tasked with the obligation to recommend only the best-suited candidates for interviews (Lazarus, 2009; Tewari & Sharma, 2016). A majority of students choosing to attend college cite goals of establishing career readiness while earning a degree (College Atlas, 2017; Cruzvergara, Testani, & Smith, 2018; Gallup, 2018; Holmes, 2015). Curiously, very little tangible academic research is evident concerning this group of influential decision-makers who have the power to launch or impede applicants' career paths.

The decision to attend college is a complex endeavor affecting one's goals, dreams, and lifetime career development. Many educators believe that an overarching mission of higher education promises to provide students with real-world transformational experiences that enhance career opportunities after degree completion (Best Colleges, 2019; McKenzie, 2017). Choosing a postsecondary education path can become an overwhelming task considering the multiple education completion options, antithetical delivery modes, and range of degree specializations available to learners (Gallup, 2018; Holmes, 2015; Jackson, 2014; Nguyen, 2015). Academic counseling from parents and educational advisors may provide guidance, yet some degree programs

designed to improve learners' workplace knowledge and skills attract social criticism concerning the education delivery mode, academic rigor, educational quality, and trustworthiness of the academic credential (Fogle & Elliott, 2013; Kaupins, Wanek, & Coco, 2014). Students are compelled to believe that postsecondary academic credentials will provide them with advantages as strong workplace or leadership candidates to business, education, and community leaders in their field of study (Jackson, 2013; Pucciarelli & Kaplan, 2016). However, academic administrators, faculty, students, recruiters, and business leaders have discordant views about the skills and competencies that affirm college graduates will be viable contenders for employment after earning academic credentials. Technology has changed the landscape of higher education and created controversy regarding the credibility of some postsecondary academic credentials. Students' beliefs that online credentials generate advantages for career growth may not align with recruiters' opinions of online credentials as credible and legitimate indicators of workplace or leadership readiness (Fogle & Elliott, 2013; Kaupins et al., 2014).

Although college students' and academic leaders' goals for studying, teaching, and developing learners' career and workplace readiness may align within scholarly curricula, completing a college degree offers graduates no guarantees regarding job procurement. With the power to decide which applicants qualify for advancement in an interview process, recruiters are the gatekeepers at the boundary between education and the employment marketplace, a human obstacle between applicants and the vast realm of workplace opportunities (Landrum, Hettich, & Wilner, 2010; Sinow-Mandelbaum, 2014;

Speight, Lackovic, & Cooker, 2013). Recruiters strive to match applicants' skills with employer expectations for workplace and leadership-ready job candidates when reviewing applicant resumes. Recruiters' views of the delivery mode of credential completion, the academic rigor, and educational quality in academic programs and the trustworthiness of postsecondary credentials may be contributing factors for interview selection (Fogle & Elliott, 2013; Helyer & Lee, 2014; Kaupins et al., 2014; Lazarus, 2009; Tabatabaei & Gardiner, 2012).

Job applicants who choose to forgo college in favor of obtaining work experience may lack the academic knowledge needed to satisfy recruiters' and employers' expectations (Cobo, 2013; Helyer & Lee, 2014; Holmes, 2013; Holmes, 2015; Jackson, 2013). Adults often choose to return to online or face-to-face colleges to establish new meaning in their lives by sharpening skills and workplace competencies in recognition of employers' demands for superior knowledge and high performance (Best Colleges, 2019; Cruzvergara et al., 2018; Gallup, 2018). Concurrently, the majority of business leaders insist that applicants exhibit obvious and significant gaps in communication abilities, critical thinking, behavioral discipline, and technical skills regardless of the mode of education delivery used to complete a postsecondary academic credential (Gallup, 2018; Moore & Morton, 2017; Soulé & Warrick, 2015).

Recruiters often measure applicants' abilities to manifest workplace and leadership readiness using assessments, popular testing methods designed to determine attitudinal tendencies and reveal information about candidates' skill sets, which match employers' hiring criteria (Tewari & Sharma, 2016; Wagner, 2008). Assessment results

showcase applicants' abilities to communicate professionally and may allow for the demonstration of qualifying skills and job competencies (Holmes, 2015; Tewari & Sharma, 2016; Williams, Moser, Youngblood & Singer, 2015). The academy and its faculty could aim to support college students and close potential performance gaps on employment assessments by teaching workplace and leadership readiness skills expected by today's recruiters (Campana & Peterson, 2013; Fulgence, 2015; Jackson, 2016; Rosch & Caza, 2012).

I conducted this study to explore differences between recruiters' perceptions of education delivery mode, college degree importance, academic rigor, educational quality, and credential trustworthiness and applicants' workplace readiness to examine recruiters, a relatively unknown, under-studied, and highly consequential group of workplace gatekeepers. Conceivably, recruiters and higher education faculty believe that postsecondary academic coursework must be rigorous, high-quality, and socially beneficial, yet do not always seem to agree on which postsecondary academic degree programs promote the development of fundamental workplace competencies (Cruzvergara et al., 2018; Jackson, 2016; Wagner, 2008). This study provides new information to students seeking career growth with potential social implications for promoting the understanding of recruiters' perceptions of college degree importance, the applicability of online and face-to-face credentials, academic rigor, and educational quality as contributors to applicants' workplace and leadership readiness in academic and business communities. The examination of postsecondary online and face-to-face academic credential trustworthiness adds to scholarly research. Recruiters' viewpoints

gathered from this study may inform faculty, student career counselors, and academic leaders with respect to students' career readiness, congruent with the overarching goals of higher education (Association of Governing Boards of Universities and Colleges, 2017).

This chapter provides a background of the literature, problem statement, purpose, research questions, and hypotheses. The theoretical framework for the study is Spence's (1973) signaling theory. Chapter 1 also includes the nature of the study, definitions of the variables and terms, assumptions, scope, delimitations, limitations, and significance of the study.

Background

Compulsory education through high school may influence students to consider attending college or other postsecondary education, which fosters personal growth and helps students develop marketable workplace skills to create a pathway to employment (Holmes, 2013; Jackson, 2013; Kreighbaum, 2018). Regardless of delivery mode, the consumers of higher education expect educators to create courses and programs in the best interest of students and enhance their abilities to optimize employment opportunities after graduation (Cai, 2013; McKenzie, 2017; Parrish, Fryer, & Parks, 2017). Earning a college degree is a transformational experience meant to facilitate opportunities for college students to strive for workplace and leadership readiness, adults to pursue new careers, and socio-cultural advances derived from lifelong learning (Benson, Heagney, Hewitt, Crosling, & Devos, 2014; Cranton, 2006; Daloz, 1986; Dirkx, 1998; Hoggan, 2016; Krassén, 2014; Mezirow, 1990). Complicating students' postsecondary education choices are inconsistent social perceptions about the trustworthiness of academic

credentials earned from differing education delivery modes (Fogle & Elliott, 2013; Kaupins et al., 2014).

The benefits of obtaining a college degree have come under criticism because of excessive student debt without guarantees of employment, as some students assess the worth of attending and graduating college (Holmes, 2015; Ward & White, 2015). With varying enrollment costs, the most popular modes for earning postsecondary degrees are online and face-to-face programs, yet academic leaders disagree about the benefits and disadvantages of attending schools offering fully online academic credentials (BonVillian & Singer, 2013; Gambescia & Paolucci, 2015; Natale, Libertella, & Doran, 2015; Speight et al., 2013). Students benefit by realistically reconciling the financial ramifications of educational indebtedness with their career earnings potential (Holmes, 2015; Pew Research Center, 2014). Balancing financial risk and exposure with the return on educational investment creates ambiguity because of rapid changes in organizational climates and uncertainties concerning applicants' career opportunities in the workplace (Holmes, 2013; McKenzie, 2017; Wagner, 2008). There is no guarantee of college graduates achieving successful employment outcomes that match degree realization and personal goals (Gallup, 2014; Gomez, 2013).

According to employers, evidence of critical thinking skills honed in a rigorous and quality learning community is one of the most important attributes applicants can display during job interviews to increase the likelihood of employment (Desai, Berger, & Higgs, 2016; McMurray, Dutton, McQuaid, & Richard, 2016; Tewari & Sharma, 2016). College graduate or not, employers expect immediate contributions from newly hired

personnel, which positively affect organizations (Jackson, 2015; Smith & Worsfold, 2015; Wade, Cameron, Morgan, & Williams, 2016). Although colleges cannot predict workplace outcomes for every student, they share in the responsibility for developing students to master skills and competencies that facilitate the transfer of learning to the workplace (Costea, Amiridis, & Crump, 2012; Jackson, 2016; McKenzie, 2017; Morrison, 2010). Advancements in educational technologies have empowered many organizations to create proprietary training programs using online classroom forums and communications; however, some academic leaders show resistance to fully trusting student interactions with educational technology and have difficulty keeping pace with changes occurring in the business world (Cai, 2013; Holmes, 2013; Parrish et al., 2017).

Some senior leaders in higher education are recognizing that students' primary motivation for engaging in postsecondary education is employment and career-related (College Atlas, 2017; Cruzvergara et al., 2018; Gallup, 2018). Ensuring workplace and leadership readiness outcomes has become a major initiative for some colleges as they seek to provide students with a tangible return on educational investments (McKenzie, 2017). Many higher education institutions are encouraging their career counselors and students to formulate workplace strategies using the National Association of Colleges and Employers (NACE) career readiness competencies as guidance for learning skills tailored to the expectations of recruiters and employers (Lazarus, 2009; National Association of Colleges and Employers, 2018b; Tewari & Sharma, 2016; Wagner, 2008). Candidates who best demonstrate the NACE career readiness competencies may stand out to

recruiters compared to other applicants. NACE academic resources also support educational development applicable to popular leadership behaviors (Cobo, 2013).

Online college degree programs continue to increase in popularity and are viewed as a resource for self-improvement, inspiring approximately 6.5million students, 33% of all college attendees, to enroll in online courses. Adult learners over age 25 comprise 81% of this online student community, pursuing unearned academic credentials, improved workplace opportunities, or career advancement (Best Colleges, 2019; Center for Online Education, 2019; College Atlas, 2017). Online learning delivery provides convenience, flexibility, and access to learners whose life commitments often prevent attendance in physical classrooms and support student objectives of personal and professional development (Gambescia & Paolucci, 2015; Gaskell & Mills, 2014; Gregori, 2015; Natale et al., 2015; Tichavsky, Hunt, Driscoll, & Jicha, 2015). In spite of students' increasing enrollment in online education, questions about the value of online college degree programs continue to emerge among academic and business leaders (Bawa, 2016; Moore & Morton, 2017; Pucciarelli & Kaplan, 2016; Soulé & Warrick, 2015). Many stakeholders in academic and business communities fail to equate students' scholastic achievements and the trustworthiness of online academic credentials with those earned at face-to-face schools (Fogle & Elliott, 2013; Kaupins et al., 2014; Knoedler, 2015; Lee English, 2013; Natale et al., 2015). Some peer-reviewed academic and popular literature discounts the value of online education delivery, failing to acknowledge the demands of completing online degree programs which require commitment, discipline, determination, and personal accountability in a structured time-sensitive environment (BonVillian &

Singer, 2013; Brandau-Brown, 2013; Dubik & Allen, 2015; Reamer, 2013; Rosch & Caza, 2012; Tabatabaei & Gardiner, 2012).

The framework and accountabilities of online education encourage learners to develop independent study skills as well as desirable work habits. Time management and computer literacy are essential, and students must demonstrate social collaboration in the virtual classroom, a skill increasingly valued in the gig employment economy (Gambescia & Paolucci, 2015; Nguyen, 2015). Successful completion of fully online degrees requires deep engagement in personally-driven learning. Self-discipline and time commitments are necessary, yet often misunderstood by some learners who choose online programs based on expectations of convenience, simplicity, and flexibility (Gambescia & Paolucci, 2009; Natale et al., 2015). Attrition rates in online education are higher than in face-to-face environments because of students' misconceptions about the difficulty of online learning and misperceptions about the demands and constraints of online curricula (Bawa, 2016).

In spite of criticisms of the online learning environment, industry demand for modern and applicable job skills has spawned a variety of convenient online education alternatives focused on supporting students' desires for improving their workplace and leadership readiness. Massive open online courses (MOOCs) have attracted many participants since becoming popular in 2012 because Internet technology facilitates learners' abilities to access, retrieve, and share course materials and pursue subject mastery; however, attrition rates are high, on par with fully online programs (Bawa,

2016). Earning a microdegree or nanodegree is quickly becoming a viable consideration for busy individuals seeking quick acceptance in the workplace (Etherington, 2017).

Online microdegrees are rapidly becoming a compelling alternative to 4-year college degree programs because providers focus on relevant and modern job skills. The cost of completing a fast-paced microdegree program is less than the cost of tuition at online or face-to-face colleges. The course content empowers students to earn certificates and badges for display on social media, thereby immediately marketing their skills to potential employers. Many organizations support microdegree programs because courses teach students current workplace applications and technical skills beneficial to their business operations (Etherington, 2017). The online learning industry is nimble, fast-acting, and poised to expand offerings to enhance workplace and leadership opportunities for its students. Technical training offered in microdegree programs is also a model component of military education applications (Miller, Erwin, Richardson, & Arntz, 2016).

The United States military endorses online education. Delivering education around the world via online global platforms challenges learners' critical and strategic thinking. Military curricula also include teaching organizational complexity and workplace and leadership readiness, skills highly-valued in the employment marketplace (Cobo, 2013; Mendes, Gomes, Marques-Quinteiro, & Curral, 2016; Rateau, Kaufman, & Cletzer, 2015; Torrez & Rocco, 2015; Wheatley, 2006). Leaders possessing the ability to connect with, teach, and motivate teams to achieve strategic organizational objectives while espousing excellent workplace behaviors and actions are talented practical

communicators (Kunnanatt, 2016; Wheatley & Frieze, 2006). Overcoming obstacles to goal attainment often requires leaders to conduct individual and group conversations, negotiate with candor to improve personal and team performance, and constructively monitor and assess results (Hesselbein, Shineski, & Cavanaugh, 2004; Stolle, 2014). Leaders who inspire all personnel to create a culture of excellence rooted in accountability that yields consistently successful results are highly skilled and in demand in the workplace.

Similar to the military, business leadership requires applying strategies, technical skills, soft skills, and human performance assessment to the work environment with a disciplined focus on realizing organizational objectives (Cobo, 2013; Jackson, 2016; Wagner, 2008). When reviewing applicants' credentials as qualifiers for leadership roles, recruiters compare the leadership skills of graduates from online and face-to-face college degree programs before making personnel recommendations to hiring managers (Kaupins et al., 2014). Recruiters may assess a potential leader's ability to create participative approaches for meeting established organizational goals and outcomes as a collaborative leadership responsibility during an interview (Hesselbein et al., 2004; Kunnanatt, 2016; Stolle, 2014). Organizational leadership presents a multitude of challenges because of variations in team members' personal learning styles, social development, and differing expectations of diverse individuals.

Among the workplace and leadership readiness factors recruiters assess are academic credentials, traditionally seen as a differentiator in student's post-education lives (Gallup, 2014, 2017, 2018; Pew Research Center, 2014; Spence, 1973, 2002). The

popularity of technology in online education delivery mode garners societal and professional criticism affecting recruiters' perceptions of online graduates (Fogle & Elliott, 2013). One common indictment of online learning alleges attraction of students with lower academic abilities because of societal perceptions that online coursework is easier than in face-to-face learning environments (Amaro & Fizgerald, 2013; BonVillian & Singer, 2013; Driscoll, Jicha, Hunt, Tichavsky, & Thompson, 2012; Lauver, Drum, Windsor, & Miller, 2013; McPherson & Bacow, 2015). Kaupins et al. (2014) studied human resource professionals' attitudes toward hiring online graduates. In their study, words like *determined*, *accountable*, and *driven* described online students; *dishonest*, *socially-challenged*, and *lack of integrity* were also labels given to online learners. Perhaps the convenience of fully online education, ease of accessibility, the perception of lack of student integrity in independent online learning, or distrust of technology are barriers to societal understanding and acceptance of online academic credentials.

Lack of academic rigor and poor educational quality are common objections to fully online education programs (Fogle & Elliott, 2013; Gambescia & Paolucci, 2015; Hagelskamp, Schleifer, & DiStasi, 2013; Natale et al., 2015). Academic rigor is defined as a set of scholarly standards and expectations common to the academic community (Draeger, Prado Hill, Hunter, & Mahler, 2013; Duncan, Range, & Hvidston, 2013). Educational quality is defined as the vigor and energy education administrators and faculty devote toward fulfilling the mission of higher education; the result of student achievements in course, academic program, and institutional learning outcomes dependent on teaching and learning (Association of Governing Boards of Universities

and Colleges, 2017). Quality control auditors from one of the 19 accrediting agencies in the United States assess a college's academic worthiness by combining the educational pillars of academic rigor and educational quality with student performance results to certify the accreditation of a college or university (Bristow, Shepherd, Humphreys, & Ziebell, 2011; Brittingham, 2009; Friedman, 2016; Johnston, 2017; United States Department of Education, 2018). The two most common objections to online learning, as opposed to face-to-face learning, are lack of academic rigor and lack of educational quality (Fogle & Elliott, 2013; Kaupins et al., 2014). Societal objections regarding the lack of academic rigor and educational quality in online college degree programs substantiate an investigation into recruiters' understanding of these foundational pillars of education.

Online graduates who voluntarily enroll in online education programs may face resistance from recruiters during the employment evaluation process, attributed to doubts regarding the trustworthiness of online credentials; irrespective of a school's earned academic accreditation (Fogle & Elliott, 2013; Knoedler, 2015). Graduates with online credentials on their resumes, particularly from for-profit colleges, receive fewer callbacks from recruiters than graduates with face-to-face degrees (Deming, Yuchtman, Abulafi, Goldin, & Katz, 2016; Deterding & Pedulla, 2016). This inferred bias seems speculative and judgmental toward online learning institutions without regard for the applicant's abilities or commitment shown for the completion of online college degree programs. Expanding on research involves determining the justification for classifying online and face-to-face graduates differently by exploring recruiters' current perceptions of online

and face-to-face delivery mode and the trustworthiness of postsecondary academic credentials.

With limited proof of the difference education credentials would make in applicants' future job performance, some recruiters assess applicants' academic credentials using artificial intelligence (AI) systems (Ashuri & Bar-Ilan, 2017; Celani & Singh, 2011; Deterding & Pedulla, 2016; Krassén, 2014). Orienting academic curricula and educational delivery systems to improve students' skills and competencies and promote the transfer of learning from postsecondary classrooms to the workplace is a reachable and worthwhile endeavor. Connecting educational outcomes involving postsecondary academic experiences to workplace expectations and requirements may give students insights into recruiters' perceptions of the worth of academic credentials for constructing pathways from education to employment (Campana & Peterson, 2013; Cruzvergara et al., 2018; Helyer & Lee, 2014; Jackson, 2016; Kreighbaum, 2018; Landrum et al., 2010; Parrish et al., 2017; Peck, Hall, Cramp, Lawhead, Fehring, & Simpson, 2016; Smith & Worsfold, 2015). This study was conducted to investigate recruiters' perceptions of online and face-to-face higher education credentials as indicators of applicants' workplace and leadership readiness. The study has the potential to improve applicants' understanding regarding the worth of postsecondary academic credentials in the employment marketplace.

Problem Statement

Recruiters' perceptions regarding differing education delivery modes, online and face-to-face credential programs as indicators of workplace and leadership readiness, and

the trustworthiness of postsecondary academic credentials are relatively unknown. Online education continues to expand and diversify because 81% of online students are adults over the age of 25 and choose online delivery mode to continue their education, while enrollment in face-to-face colleges is declining (Allen, Seaman, Poulin, & Straut, 2016; Best Colleges, 2019; College Atlas, 2017; Legon & Garrett, 2017; Marcus, 2017; Seaman, Allen, & Seaman, 2018). The increasing popularity and inclusion of online coursework in the curricula of face-to-face colleges with superior reputations suggest that online education contributes to positive social change as a value-added experience in the realm of education (Gregori, 2015). However, Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner, (2012) stated that students' impressions regarding the advantages of completing online college degree programs as a means of advancing career growth may not match recruiters' opinions of online credentials as academically rigorous, quality, and credible indicators of workplace and leadership readiness. Despite increases in online college attendance, the number of graduates from online universities, and a majority of academic leaders who believe that online and face-to-face learning programs are comparable, social perceptions about the lack of academic rigor and educational quality in online academic programs challenge recruiters' perceptions of online education delivery mode (Allen et al., 2016; BonVillian & Singer, 2013; Nguyen, 2015).

A search of recent academic peer-reviewed literature informed the problem, producing research studies by Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner (2012) directly related to hiring gatekeepers and the credibility

and acceptance of face-to-face and online degree programs. These studies found that hiring gatekeepers' perceived online college degree programs lacked academic rigor and educational quality and were not credible compared to face-to-face college degree programs. The studies also demonstrated that hiring gatekeepers' perceptions regarding the value and legitimacy of online college degree programs created competitive advantages for graduates from face-to-face programs to the detriment of online college graduates. Tabatabaei & Gardiner (2012) revealed that recruiters' experiences with online education had a positive effect on their opinions of online graduates; however, Fogle & Elliott (2013) and Kaupins et al. (2014) indicated that hiring gatekeepers' negative viewpoints concerning the lack of academic integrity and credibility of online degrees causes resistance to interviewing and hiring online graduates. The subordination of online degrees is problematic because it may undermine online college graduates' opportunities for entry or advancement in the workplace or qualifying for leadership positions.

Recruiters have the power to control the future of job candidates. Conducting a study to explore recruiters' perceptions of education delivery mode and applicants' workplace and leadership readiness will help to examine this under-studied, important, and highly consequential group of decision-makers. Recruiters' perceptions regarding education delivery mode and its applicability to applicants' workplace and leadership readiness is a substantial gap in research worthy of investigation.

Purpose of the Study

The purpose of this study was to investigate differences in recruiters' perceptions of online and face-to-face higher education credentials as indicators of applicants'

workplace and leadership readiness. Quantitative methodology and a non-experimental cross-sectional comparative survey design were used in this study. Increasing numbers of adults are returning to college in pursuit of workplace opportunities and advancement, even though committing to the completion of an accredited postsecondary credential program through any higher education delivery mode is a significant time and monetary investment (Gambescia & Paolucci, 2015; Linardopoulos, 2012). Technological changes have diversified postsecondary education and expanded the availability of online and face-to-face academic programs. Applicants' goals of leveraging academic credentials toward securing gainful employment in the workplace or preparing themselves for leadership positions may be complicated by their choice of degree (Cruzvergara et al., 2018; Helyer & Lee, 2014; Holmes, 2015; Jackson, 2013; Kaupins et al., 2014; Tewari & Sharma, 2016). This study used an online survey to elicit recruiters' perceptions of postsecondary education delivery mode and applicants' workplace and leadership readiness. Recruiters' perceptions regarding the worth of academic credentials and their applicability to applicants' workplace and leadership readiness is a substantial gap in research worthy of investigation.

Cai (2013), Fogle & Elliott (2013), Gambescia & Paolucci (2015), Kaupins et al. (2014), Nguyen (2015), Tabatabaei & Gardiner (2012), and Ward & White (2015) indicated that recruiters' perceptions regarding the academic rigor and educational quality in online education delivery mode were consistent with societal objections to online college degree programs. Increasing enrollment in online higher education programs as the impetus for improving students' pathways to employment provides good cause for

filling a gap in research by conducting a current and deeper analysis of education delivery mode and credential trustworthiness. Analyzing recruiters' perceptions of college degree importance, the applicability of academic credentials, academic rigor, and educational quality in online and face-to-face academic programs as indicators of applicants' workplace and leadership readiness may help explain recruiters' views regarding the trustworthiness of postsecondary academic credentials.

Variables

The independent variables were chosen based on a review of studies by Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner, (2012) concerning the hiring of graduates with online and face-to-face college degrees and are designed to complement, build upon, and advance existing findings. Online education continues to gain in popularity, yet its acceptance by recruiters may be based on societal assumptions, rely on subjective observations, or be affected by the passage of time (Fogle & Elliott, 2013; Gambescia & Paolucci, 2015; Kaupins et al., 2014; Nguyen, 2015; Tabatabaei & Gardiner, 2012). The following independent variables were factors associated with recruiters' perceptions of job applicants:

- Recruiter's age, gender, and industry.
- Type of postsecondary academic credential: Online college degree, face-to-face college degree, or professional certification.
- Recruiter's highest earned credential: Bachelor's degree, master's degree, doctorate degree, professional certification, or no college degree.

- Recruiter's experience with education: Face-to-face only, online only, or blended: a combination of online and face-to-face.
- Education delivery mode: Online or face-to-face.

The dependent variables emerged from the research questions. The worth of academic credentials in association with applicants' workplace and leadership readiness is unknown. These factors affected decision-making by recruiters based on their perceptions of applicants' online or face-to-face academic credentials.

- Recruiters' perceptions of applicants' workplace readiness.
- Recruiters' perceptions of applicants' leadership readiness.
- Recruiters' perceptions of the academic rigor in online and face-to-face postsecondary academic programs.
- Recruiters' perceptions of the educational quality in online and face-to-face postsecondary academic programs.
- Recruiters' perceptions of the trustworthiness of online and face-to-face postsecondary academic credentials.

Research Questions and Hypotheses

The introduction and subsequent popularity of online education changed traditional norms for completing college degrees and inspired studies by Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner (2012), directly related to hiring gatekeepers, online and face-to-face credential credibility, and credential acceptance in the workplace. This study is grounded in and extends those scholarly

works. The research questions in this study emerged as a direct result of the analyses and discussions in those studies.

Research questions one and two examine recruiters' perceptions of postsecondary degree importance based on recruiters' age, gender, highest earned credential, industry, and recruiters' experience with education: face-to-face only, online only, or blended: a combination of online and face-to-face and applicants' workplace or leadership readiness. Research questions three and four explore differences in recruiters' perceptions of applicants' workplace or leadership readiness that may be attributed to postsecondary online and face-to-face credentials. Research questions five and six examine differences in recruiters' perceptions concerning the academic rigor of online and face-to-face credential programs and applicants' workplace or leadership readiness. Research questions seven and eight explore differences in recruiters' perceptions concerning the educational quality of online and face-to-face credential programs and applicants' workplace or leadership readiness. Research question nine investigates differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials.

Research Questions

RQ1 – Are there differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' workplace readiness?

Ho1 – There are no significant differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' workplace readiness.

Ha1 – There are significant differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' workplace readiness.

RQ2 – Are there differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' leadership readiness?

Ho2 – There are no significant differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' leadership readiness.

Ha2 – There are significant differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' leadership readiness.

RQ3 – Are there differences in recruiters' perceptions of applicants' workplace readiness attributable to postsecondary education online or face-to-face credentials?

Ho3 – There are no significant differences in recruiters' perceptions of applicants' workplace readiness attributable to postsecondary education online or face-to-face credentials.

Ha3 – There are significant differences in recruiters' perceptions of applicants' workplace readiness attributable to postsecondary education online or face-to-face credentials.

RQ4 – Are there differences in recruiters' perceptions of applicants' leadership readiness attributable to postsecondary education online or face-to-face credentials?

Ho4 – There are no significant differences in recruiters' perceptions of applicants' leadership readiness attributable to postsecondary education online or face-to-face credentials.

Ha4 – There are significant differences in recruiters' perceptions of applicants' leadership readiness attributable to postsecondary education online or face-to-face credentials.

RQ5 – Are there differences in recruiters' perceptions concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness?

Ho5 – Recruiters' perceive no significant differences concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness.

Ha5 – Recruiters' perceive significant differences concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness.

RQ6 – Are there differences in recruiters' perceptions concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness?

Ho6 – Recruiters' perceive no significant differences concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness.

Ha6 – Recruiters' perceive significant differences concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness.

RQ7 – Are there differences in recruiters' perceptions concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness?

Ho7 – Recruiters' perceive no significant differences concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness.

Ha7 – Recruiters' perceive significant differences concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness.

RQ8 – Are there differences in recruiters' perceptions concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness?

Ho8 – Recruiters' perceive no significant differences concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness.

Ha8 – Recruiters' perceive significant differences concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness.

RQ9 – Are there differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials?

Ho9 – There are no significant differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials.

Ha9 – There are significant differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials.

Descriptive and inferential statistics were appropriate methods of data analysis to explore recruiter perceptions, draw conclusions from the data, and generalize the conclusions to a larger population (Lodico, Spaulding, & Voegtle, 2010). The Mann-Whitney *U* and Kruskal-Wallis *H* tests were used to compare differences between groups. The purpose of Mann-Whitney *U* and Kruskal-Wallis *H* testing was to determine if the means of the dependent variable for each level of the independent variable were significantly different from one another. The one-sample *t*-test was used to analyze

differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials by comparing the mean of the population sample to the theoretical mean (Lakens, 2017; Shieh, Jan, & Randles, 2006).

In this study, Mann-Whitney *U* testing was the correct statistic to analyze the data and discover insights from the population of recruiters because each of the two nominal levels of an independent variable was applied to a single dependent variable. The independent variables were recruiters' age, gender, industry, highest earned credential, and mode of completion, education delivery mode, and type of postsecondary academic credential. The dependent variables were recruiter's perceptions of applicants' workplace readiness, applicants' leadership readiness, the academic rigor of online and face-to-face academic programs, and the educational quality of online and face-to-face academic programs.

The one sample *t*-test was the correct statistic to compare the sample mean to a known mean and discover insights about differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials because the response scale contained a definitive mid-point between the upper and lower extreme scores.

Theoretical Foundation

Signaling theory originated in the study of economics by Spence (1973) when educational achievements were viewed as indicators that reduced the financial risk for organizational hiring. Spence (1973) compared employers' hiring risks with games of chance and probabilities, citing the fact that job training was costly, and productivity

would take time for any newly hired employee to learn. This dilemma caused uncertainty for employers who looked toward the observable behaviors of job applicants to help resolve problems. To mitigate employment risks, employers viewed postsecondary education as signals of knowledge acquisition and skills development, which increased employer confidence for selecting the right applicants to hire. Signals, like postsecondary education, are items in a person's control and are alterable, usually involving a cost. Immutable characteristics termed indices by Spence (1973) are non-alterable characteristics affecting employment potentiality. Examples of indices cited by Spence (1973) are gender, race, age, employment history, and criminal background. The tenet of indices is innate to signaling theory because of the effects indices have on hiring. These indices are known today as demographics and background information and may have a significant impact on applicants' employability and wages offered. Differences in wage offerings based on demographics continue to incite some claims of hiring bias based on applicants' immutable characteristics.

As newly hired workers achieved full productivity, employers noted the existing conditions, viewed postsecondary education credentials as guides to further hiring, and pursued identical observable traits in subsequent job applicants. Spence (1973) said that equilibrium existed between postsecondary education programs and hiring because employer demand for particular jobs would drive the selection of college degree programs. Students' academic choices signaled candidate differentiation and thereby delivered the right number of applicants to the proper jobs to fill the needs of the employment market. Postsecondary education credentials were the most important

observable difference in a person's ambitions to qualify for certain jobs; however, postsecondary education could have a negative effect on applicants who invested too heavily in education for jobs in low demand by employers. Importantly, an inherent function of signaling was to overcome an absence of information, asymmetrical to assessing applicants' qualifications (Spence, 1973). The Internet has changed the dynamics of signaling, which is commonly used in the recruitment, education, organizational management, and financial services industries.

This study explored recruiters' perceptions of online and face-to-face education delivery mode and applicants' workplace and leadership readiness in part by examining recruiters' understanding of academic rigor and educational quality as signals of their views regarding the trustworthiness of college credentials. An applicant's ability to establish trust with recruiters and potential employers depends on verbal and non-verbal exchanges and recruiters' judgments, some observable and some unobservable, identical to the elements of signaling theory (Spence, 1973).

Nature of the Study

Quantitative methodology and a non-experimental cross-sectional comparative survey design were used in this study to gather recruiters' perceptions with the goal of generalizing the results to a larger population (McMillan & Schumacher, 2010). The rationale for choosing this design was to collect the largest amount of data possible in an understandable and familiar format. Using an online survey allowed all recruiters across the global employment market to participate in the study at their convenience and submit answers quickly. The self-developed Higher Education and Workplace Readiness Survey

(see Appendix B) was posted on the Internet using Survey Monkey, and participants were invited through professional recruiter group websites and an online recruiter directory. I also networked with recruiters via telephone and in-person to confirm my identity and encourage participation and survey sharing among recruiting colleagues. I followed up networking visits with reminder e-mails. Survey data were collected from recruiters' answers to questions using Likert-type scales to measure responses and analyzed with Mann-Whitney *U* and Kruskal-Wallis *H* non-parametric statistical tests and a parametric one sample *t*-test (Lakens, 2017; Shieh et al., 2006).

The independent variables were recruiters' age, gender, industry, type of postsecondary academic credential (online college degree, face-to-face college degree, or professional certification), recruiters' highest earned credential (bachelor's degree, master's degree, doctorate degree, professional certification, or no college degree), and experience with education (online only, face-to-face only, or blended, and education delivery mode (online or face-to-face). Recruiters' demographics were factors associated with their perceptions of job applicants. Recruiter's prior educational experiences may affect their views of applicants' academic credentials.

The dependent variables in this study emerged from the research questions. Recruiters' hiring decisions are affected by their perceptions of applicants' academic credentials. The dependent variables were recruiters' perceptions of applicants' workplace readiness, applicants' leadership readiness, the academic rigor of online and face-to-face postsecondary academic programs, the educational quality of online and face-to-face postsecondary academic programs, and the trustworthiness of postsecondary

academic credentials. The worth of academic credentials in association with applicants' workplace and leadership readiness is unknown.

Definitions

The definition of terms used in this study emerged from the literature review and include academic rigor, college degree programs, education delivery modes, educational quality, leadership readiness, postsecondary academic credentials, recruiters, the trustworthiness of academic credentials, and workplace readiness.

Academic rigor: A set of scholarly standards and expectations common to the academic community. Scholarly literature provides studies by Draeger et al. (2013), Duncan et al. (2013), Schnee (2008), and Wagner (2008) concerning the elements of *academic rigor* used in higher education. One interpretation portrays *academic rigor* as a collaborative association between academic leaders, faculty, and students; the level of challenge of educational curricula coupled with the required intensity of students' engagement and the expected quality of deliverable assignments. Another possible interpretation of *academic rigor* is immersion in a deep learning experience that supports skill and worldview development; the product of the knowledge, skills, and beliefs that reflect in one's behaviors and actions in the workplace.

College degree programs: A program of study, often including a specialization within the program to support students' mastery of a chosen area, that empowers college students to earn an academic credential (Kriner, Coffman, Adkisson, Putman, & Monaghan, 2015; Toner, 2011).

Education delivery modes: In this study, *education delivery modes* are postsecondary online or face-to-face college learning following the completion of high school.

Educational quality: The vigor and energy education administrators and faculty devote toward fulfilling the mission of higher education; the result of student achievements in course, academic program, and institutional learning outcomes dependent on teaching and learning (Cobo, 2013; Jackson, 2016; McKenzie, 2017). Assessment and observation are the most common methods of measuring *educational quality* at institutions of higher learning (Nash, 2015). One aspect of *educational quality* is the academic perception that the accreditation of a particular college and the excellent reputation of its faculty signifies that its students receive an exemplary transformative educational experience (Bristow et al., 2011; McKenzie, 2017).

Leadership readiness: Employer expectations that college graduates are prepared to lead other people in a managerial or senior leadership role (McCracken, Currie, & Harrison, 2016; Moore & Morton, 2017; Torrez & Rocco, 2015; Wagner, 2008).

Postsecondary academic credentials: In this study, online academic credentials and face-to-face academic credentials.

Recruiters: Employment gatekeepers responsible for resume evaluation, interviewing, and recommending the most talented job applicants to employers. *Recruiters* are also known by the titles of employment recruiters, talent managers, and employment managers (Yu, 2019).

Trustworthiness of academic credentials: An assertion that academic credentials earned in postsecondary online and face-to-face delivery modes from accredited higher learning institutions are credible indicators of educational value as evidenced by accreditation from one of the 19 higher education accrediting agencies in the United States (Fogle & Elliott, 2013; Kaupins et al., 2014; United States Department of Education, 2018).

Workplace readiness: Employer expectations that college graduates have learned the necessary skills and knowledge to become productive members of an organization or consortium (Jackson, 2016; McCracken et al., 2016; Moore & Morton, 2017).

Assumptions

Several assumptions were inherent in this study. The first assumption was that the recruiters who answered the Higher Education and Workplace Readiness Survey (see Appendix B) were familiar with the existence of online and face-to-face college degree programs. The second assumption was that recruiters had probably observed applicant resumes with evidentiary content of graduates earning online academic credentials or face-to-face academic credentials. The third assumption was that participants would provide honest answers to the survey questions on a voluntary basis because no harm would occur as a result of their answers, and they could withdraw from the study at any time. The fourth assumption was that participants understood the differing definitions of applicant's workplace readiness and leadership readiness based on their professional recruiting expertise.

Scope and Delimitations

This study was delimited to all recruiters across the global employment market, recruiters listed on multiple recruiter professional group websites, members of an online listing in a global recruiter directory, and recruiters located in my geographical region. This study was broadly conceived to attract participants from multiple industries (see Appendix C) with the intent to discover any differences in recruiters' perceptions across the global employment market. The Higher Education and Workplace Readiness Survey (see Appendix B) elicited recruiters' views and assessments of applicants' educational achievements expected to convey their workplace and leadership readiness.

The delimitations in this study included self-selected participants and the examination of online and face-to-face education delivery modes only. Recruiters' interpretation of the meanings of academic rigor and educational quality in postsecondary online and face-to-face academic programs is unknown. Asking questions that may or may not clarify recruiters' perceptions of academic credential trustworthiness may yield highly polarized and subjective responses.

All recruiters across the global employment market are the population for this study because they are tasked with tactical and strategic talent acquisition of personnel. Recruiters are responsible for resume evaluation and conducting initial interviews with job applicants. This study does not include human resource managers or hiring managers who may have advanced roles in the hiring process (Yu, 2019). The chosen education delivery modes in this study are online and face-to-face. Questions about recruiters' perceptions concerning the applicability of online and face-to-face bachelors, masters,

and doctorate academic credential programs to applicants' workplace and leadership readiness objectify educational achievements designed to enhance graduates' knowledge, personal growth, and employment opportunities.

College students' career progression often depends on skills and competencies acquired through knowledge acquisition that signal workplace and leadership readiness. The inclusion of questions concerning the academic rigor and educational quality of online and face-to-face academic programs addressed societal perceptions and claims of a stigma associated with online learning. The credibility and legitimacy of online college degrees remain a hiring barrier for some employers and online graduates because of hiring gatekeepers' perceptions regarding lack of academic rigor and educational quality in online education (Fogle & Elliott, 2013; Kaupins et al., 2014).

Limitations

Several limitations existed for this study. A comprehensive self-selected sample of recruiters was invited to fill out the Higher Education and Workplace Readiness Survey (see Appendix B). The first limitation in this study was the collection of 154 completed surveys, which ensured valid external generalizability of the results, as evidenced by power analysis. A second limitation of this study was completing survey collection as soon as possible to ensure timely completion of the study. A third limitation was to preserve the integrity of the study by ensuring I had no contractual relationships with any recruiters in the population. I developed the questions used in the Higher Education and Workplace Readiness Survey (see Appendix B) because no existing

survey about recruiters' perceptions of education delivery mode and applicants' workplace and leadership readiness applied to this study.

Significance

Recent meetings at the White House between senior government officials and stakeholders in the United States Department of Education signal efforts to review and change some responsibilities of higher education accrediting agencies. The focus of the meetings was to connect the learning outcomes of higher education institutions to the administration's goals of ensuring workplace-ready college graduates (Kreighbaum, 2018). New accreditation policies have been proposed that would improve the flexibility for some postsecondary education providers while closing non-compliant colleges. The proposals are currently posted on the Internet and in a state of public review (Quintana, 2019). Accredited college credentials reflecting academic rigor and educational quality may be seen as important hiring factors by educators, yet recruiters may not perceive some credentials as trustworthy indicators of college graduates' career readiness (Helyer & Lee, 2014; McMurray et al., 2016).

Recruiters play a critical role as the powerful and decisive gatekeepers at the boundary between education and the workplace because their perceptions of candidates' academic and work experiences either launch or impede advancement in any interview process. Little is known about recruiters' perceptions of academic rigor and educational quality in online and face-to-face education delivery modes. Recruiters' perceptions of credential trustworthiness affect college graduates' abilities to acquire degree-related jobs

or change careers after completing postsecondary college degree programs (Fogle & Elliott, 2013; Holmes, 2015; Kaupins et al., 2014; Tabatabaei & Gardiner, 2012).

Academic rigor and educational quality are pillars of the postsecondary higher education experience. Discovering how these essential elements relate to the realities of college graduates' career readiness has the potential to alter recruiters' views toward online or face-to-face education delivery mode (Gaskell & Mills, 2014; Tewari & Sharma, 2016). Collected data, analyses, and discussions regarding recruiters' perceptions of academic rigor and educational quality based on academic definitions and recruiters' perceptions of trustworthiness between online and face-to-face postsecondary academic credentials were original contributions of this study. This study filled a gap in practice by associating recruiters' perceptions of education delivery mode with applicants' workplace readiness to provide insights into recruiters' assessments of academic credential worth and applicable career value. Gaining knowledge about recruiter perspectives of the academic rigor and educational quality of postsecondary online and face-to-face academic programs provides employer representatives with opportunities to help advance initiatives for linking academic credential programs to students' workplace and leadership readiness (Cruzvergara et al., 2018).

Recruiters' assessments of job candidates' academic credentials may pose potential problems for college graduates who have little work experience in their field of study, yet are in pursuit of a career change initiated by the completion of postsecondary online or face-to-face college degree programs (Helyer & Lee, 2014; Holmes, 2015). Recruiters' perceptions of postsecondary online and face-to-face education delivery

modes, assessments of the academic rigor and educational quality of postsecondary online and face-to-face academic degree programs, and perceptions about the legitimacy of postsecondary online and face-to-face credentials, have had a negative societal impact on the credibility of online credentials. Recruiters have resisted the endorsement of online graduates to hiring organizations and contributed to negative societal paradigms regarding the acceptance of online education (Fogle & Elliott, 2013; Kaupins et al., 2013; Tabatabaei & Gardiner, 2012). This study addressed a gap in practice by associating recruiters' perceptions of education delivery mode with applicants' workplace readiness.

As a practical application, this study may help guide higher education administrators to better support students' career aspirations throughout the postsecondary learning experience by continually improving academic learning curricula to reflect employers' workplace expectations. In some higher learning institutions, career readiness competencies are customarily assigned to academic career counselors. Perhaps assessment testing conducted by school administrators and faculty can help measure knowledge, skills, and competencies recommended by NACE to ensure college graduates' credentials signal workplace or leadership readiness (National Association of Colleges and Employers, 2018b).

If the premise and purpose of completing postsecondary education are advancing students' career readiness, preparing graduates to join the workforce deserves to be viewed as an academic priority. Developing an integrated system of connecting learning outcomes to workplace readiness and organizational leadership may positively influence the social dynamic of completing postsecondary academic credential programs. This

study gave recruiters a collaborative voice in the advancement of college graduates' workplace and leadership readiness. The opportunity to guide the decision-making of college students toward achieving workplace and leadership readiness through transformative educational experiences in multiple communities is a far-reaching societally beneficial outcome that is socially prudent and morally desirable (McKenzie, 2017; Mezirow, 1990, 2000). This study also addressed a gap in research by studying signaling theory from the standpoint of applicants as stakeholders in recruiters' decision-making; suggested by Celani & Singh (2011) and Ehrhart & Ziegert (2005) regarding recruiters, signaling theory, and the attractiveness of job applicants.

Summary

College credentials are increasingly required for obtaining entry-level jobs or leadership careers. The decision to attend college has become complex because of students' and recruiters' discordant views concerning academic credential credibility between online and face-to-face delivery modes. Many students return to online colleges in adulthood to focus on improving their lives and career opportunities through education. A majority of online learners have multiple social responsibilities, yet choose to attend college with intentions for career improvement. Recruiters act as the gatekeepers of the hiring process by evaluating the academic credentials of applicants. Organizational leaders have high expectations of graduates entering the workplace and expect them to demonstrate knowledge and skill expertise during interviews and throughout the entire hiring process.

Students' abilities to transfer academic learning to the workplace are beneficial to employers and demonstrate readiness to succeed in an organization. Graduates' workplace and leadership readiness may improve based on favorable academic outcomes throughout their postsecondary education. The meaning of academic rigor and educational quality in online and face-to-face credential programs are sources of conflict in the academic community. Perhaps recruiters' decision-making tendencies favor the historical, comfortable norms of face-to-face learning; particularly relevant because disruptive technological advances in education threaten paradigm change in the postsecondary education industry. Choosing to attend any college does not guarantee graduates a valuable employment outcome or return on investment that matches potential job opportunities with the cost of an academic credential program.

Chapter 2: Literature Review

Recruiters' perceptions regarding differing education delivery modes, online and face-to-face credential programs as indicators of workplace and leadership readiness, and the trustworthiness of postsecondary academic credentials are relatively unknown. Online education continues to expand and diversify because 81% of online students are adults over the age of 25 and choose online delivery mode to continue their education, while enrollment in face-to-face colleges is declining (Allen, Seaman, Poulin, & Straut, 2016; Best Colleges, 2019; College Atlas, 2017; Legon & Garrett, 2017; Marcus, 2017; Seaman, Allen, & Seaman, 2018). The increasing popularity and inclusion of online coursework in the curricula of face-to-face colleges with superior reputations suggest that online education contributes to positive social change as a value-added experience in the realm of education (Gregori, 2015). However, Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner, (2012) stated that students' impressions regarding the advantages of completing online college degree programs as a means of advancing career growth may not match recruiters' opinions of online credentials as academically rigorous, quality, and credible indicators of workplace and leadership readiness. Despite increases in online college attendance, the number of graduates from online universities, and a majority of academic leaders who believe that online and face-to-face learning programs are comparable, social perceptions about the lack of academic rigor and educational quality in online academic programs challenge recruiters' perceptions of online education delivery mode (Allen et al., 2016; BonVillian & Singer, 2013; Nguyen, 2015).

The purpose of this study was to investigate differences in recruiters' perceptions of online and face-to-face higher education credentials as indicators of applicants' workplace and leadership readiness. Quantitative methodology and a non-experimental cross-sectional comparative survey design were used in this study. Increasing numbers of adults are returning to college in pursuit of workplace opportunities and advancement, even though committing to the completion of an accredited postsecondary credential program through any higher education delivery mode is a significant time and monetary investment (Gambescia & Paolucci, 2015; Linardopoulos, 2012). Technological changes have diversified postsecondary education and expanded the availability of online and face-to-face academic programs. Applicants' goals of leveraging academic credentials toward securing gainful employment in the workplace or preparing themselves for leadership positions may be complicated by their choice of degree (Cruzvergara et al., 2018; Helyer & Lee, 2014; Holmes, 2015; Jackson, 2013; Kaupins et al., 2014; Tewari & Sharma, 2016). This study used an online survey to elicit recruiters' perceptions of postsecondary education delivery mode and applicants' workplace and leadership readiness. Recruiters' perceptions regarding the worth of academic credentials and their applicability to applicants' workplace and leadership readiness is a substantial gap in research worthy of investigation.

Cai (2013), Fogle & Elliott (2013), Gambescia & Paolucci (2015), Kaupins et al. (2014), Nguyen (2015), Tabatabaei & Gardiner (2012), and Ward & White (2015) indicated that recruiters' perceptions regarding the academic rigor and educational quality in online education delivery mode were consistent with societal objections to online

college degree programs. Increasing enrollment in online higher education programs as the impetus for improving students' pathways to employment provides good cause for filling a gap in research by conducting a current and deeper analysis of education delivery mode and credential trustworthiness. Analyzing recruiters' perceptions of college degree importance, the applicability of academic credentials, academic rigor, and educational quality in online and face-to-face academic programs as indicators of applicants' workplace and leadership readiness may help explain recruiters' views regarding the trustworthiness of postsecondary academic credentials.

Literature provides a gateway for exploration and grounds this study in scholarly research. This section provides the literature search strategy, conceptual framework, and theoretical foundation. A literature review related to key concepts and variables is also presented.

Literature Search Strategy

Locating literature applicable to recruiters' perceptions of online and face-to-face education delivery mode and applicants' workplace and leadership readiness required searching multiple subject areas. I conducted searches using the Walden University Library and Google Scholar with numerous keywords related to education, leadership, recruiting, workplace expectations, and career readiness to locate literature written between 1988 and 2019. Academic Search Complete, Business Source Complete, EBSCOHost, Education Source, Emerald Insight, ERIC, ProQuest Central, Research-Gate, SAGE Journals, Taylor and Francis Online, and Thoreau Multi-Database Search contained the referenced journal articles. Searching the World Wide Web allowed

retrieval of other pertinent literature. Specific keywords used as search terms were: *academic rigor, accreditation, college attendance, college degree programs, college degree value, college graduates' workplace expectations, college worth, educational leadership, educational quality, education theoretical frameworks, employability skills, face-to-face education, leadership readiness, military leadership, online education, online education in the military, organizational complexity, organizational leadership, recruiter expectations of college graduates, recruiters' perceptions of online as opposed to face-to-face learning, recruiting theories, signaling theory, transformational leadership, transformative learning theory, and workplace readiness*. My search provided sources from academic journals, books, dissertations, magazines, newspaper articles, and periodicals.

Most academic literature was peer-reviewed journal articles between 2014 and 2019. The over-arching research about the importance of earning a college degree was retrieved from the World Wide Web and includes studies by Gallup (2014, 2017, 2018) and Pew Research Center (2014). One of the research topics, recruiters' perceptions of online as opposed to face-to-face learning, yielded a limited number of recent peer-reviewed articles. Three studies are the most current from this search, but recruiters were the population in only one study (Tabatabaei & Gardiner, 2012). Hiring managers (Fogle & Elliott, 2013) and human resource professionals (Kaupins et al., 2014) were the populations in the other two studies. To mitigate the lack of direct research on this topic, literature about online learning education modes and online college degree completion supports this study. Several articles concerning academic rigor, educational quality,

accreditation, and educational leadership applied to the study. Signaling theory was referenced from works by Ashuri and Bar-Ilan (2017), Celani and Singh (2011), Cole, Rubin, Feild, and Giles, (2007), Connelly, Certo, Ireland, and Reutzel, 2011, Ehrhart and Ziegert (2005), Karasek and Bryant (2012), Krassén (2014), and Spence (1973, 2002).

Conceptual Framework/Theoretical Foundation

Signaling Theory

Signaling theory originated in the study of economics by Spence (1973) when educational achievements were viewed as indicators that reduced the financial risk for organizational hiring. Spence (1973) compared employers' hiring risks with games of chance and probabilities, citing the fact that job training was costly, and productivity would take time for any newly hired employee to learn. This dilemma caused uncertainty for employers who looked toward the observable behaviors of job applicants to help resolve problems. To mitigate employment risks, employers viewed postsecondary education as signals of knowledge acquisition and skills development, which increased employer confidence for selecting the right applicants to hire. Signals, like postsecondary education, are items in a person's control and are alterable, usually involving a cost. Immutable characteristics termed indices by Spence (1973) are non-alterable characteristics affecting employment potentiality. Examples of indices cited by Spence (1973) are gender, race, age, employment history, and criminal background. The tenet of indices is innate to signaling theory because of the effects indices have on hiring. These indices are known today as demographics and background information and may have a significant impact on applicants' employability and wages offered. Differences in wage

offerings based on demographics continue to incite some claims of hiring bias based on applicants' immutable characteristics.

Recruiters review applicant resumes to assess job qualifications, yet recruiters' judgment of postsecondary academic credentials on resumes is inconsistent. In a study about recruiters' resume reviews, hiring decisions were dependent on interactive combinations of education, grade point averages, work experience, and extra-curricular activities. Counter-intuitively, recruiters' judgment of these signals did not always reflect in logical predictions of applicants' future performance or result in hiring decisions congruent with applicants' resumes. Demographics played a major role in recruiters' hiring decisions, particularly recruiters' gender, age, and education level, as well as the gender of job candidates. Recruiters' resume reviews lack any empirical or transparent system of interpretation across the recruiting industry (Cole et al., 2007).

Applicants' confusion about the benefits associated with online or face-to-face academic credentials on resumes contributes to the complex and ambiguous signals regarding recruiters' expectations of applicants' workplace and leadership readiness. In today's recruiting environment, the use of AI to screen resumes may disqualify highly qualified applicants because of the absence of keywords matching the search parameters computer recruiting programs require. If an applicants' resume is rejected electronically, education signaling on resumes has no chance to affect workplace or leadership readiness because a human recruiter will likely never see the applicant's resume (Cole et al., 2007; Ehrhart & Ziegert, 2005).

The rationale for using signaling theory involves its reciprocating qualities that facilitate its use in one-to-one relationships, in this application, between job applicants and recruiters, evident in scholarly literature (Ashuri & Bar-Ilan, 2017; Celani & Singh, 2011; Krassén, 2014; Spence, 1973). College degree attainment signals to recruiters that graduates have invested monetarily toward developing skills and competencies relevant to the academic credential programs chosen. Celani & Singh (2011), Connelly, Certo, Ireland, & Reutzel (2011), and Karasek & Bryant (2012) conducted studies concerning recruiters' reliance on signaling theory. Their findings primarily focused on recruiters' use of organizational branding, industry reputation, corporate values, and employment outcomes as recruiting tools to help organizations attract better candidates. Celani & Singh (2011) recognized that their research results conveyed only organizational perspectives and recommended the further study of signaling theory from the standpoint of applicants.

Investing in online or face-to-face college education is an observable action by applicants. College attendance can become more worthy if graduates can couple degree attainment with demonstrating the career readiness competencies prescribed by NACE as credible signals of workplace and leadership readiness (Cruzvergara et al., 2018; Spence, 1973). Perhaps for recruiters, the asymmetrical information in the signals sent by online and face-to-face degree completion exists in the unobservable characteristics regarding the trustworthiness of postsecondary academic credentials for providing highly skilled and competent career-ready applicants to their clients.

Choosing to complete online or face-to-face academic credential programs are actions that signal graduates' willingness to engage in educational behaviors as investments to improve future workplace or leadership opportunities. Participation in higher education is often seen through the lens of societal improvement; upon graduation, students will benefit society by virtue of a transformational college experience. Yet students' expectations of engaging in postsecondary education may reflect a different core purpose; seeking a career path that leads to financial sustainability through career readiness and workplace advancement (McKenzie, 2017). Competition, globalization, and the speed of technology have altered the pace and stakes in the business environment. Changes in the delivery mode of education attempt to match the increased demands of employment markets (Church, 2014). Much more than purely a social shift, today's job applicants must have superior skills and competencies to survive the complexities of the organizational environment. Online education delivery is a source of pride for the academic community due to improvements in the worldwide accessibility of education; however, societal concerns about the academic rigor and educational quality of online degree programs seems to undermine its benefits and convey negative signals about its trustworthiness (Fogle & Elliott, 2013; Gambescia & Paolucci, 2015; Gaskell & Mills, 2014; Kaupins et al., 2014; Krassén, 2014; Natale et al., 2015).

Academic rigor, educational quality, and accreditation of college degree programs represent higher education signals of the credibility and legitimacy of academic credentials; however, recruiters may debate their worth. Society has now become burdened with college graduates in substantial debt without access to a sustainable career

path. In some cases, public displays of unacceptable social behaviors cause the questioning of educational systems. Communities would benefit economically by improving the quality of education and teaching workplace and leadership readiness to its students (Krassén, 2014). If increases in the accessibility of online college degrees signal devaluation of college credentials to recruiters and organizations in the fast-paced age of the Internet, the societal outcomes and system for earning academic credentials deserves to be viewed from an alternative modern-day lens.

Perhaps the reasons for attending college have shifted in favor of students' needs to secure sustainable careers; imploring recruiters to consider signals which affirm the skills and competencies of job applicants' workplace and leadership readiness (Gallup, 2018). Applicants' career readiness and ability to sustain their lives economically in the workplace may signal new practical and social outcomes for all stakeholders involved in higher education. Trustworthy education programs and academic credentials in all delivery modes that promote and empower personal social responsibility could emerge by taking a different approach focused on ensuring students' workplace readiness.

Literature Review Related to Key Concepts and Variables

The literature review synthesizes studies and articles relevant to this study about recruiters' perceptions of education delivery mode and applicants' workplace and leadership readiness. The key concepts and variables of education delivery mode: Online and face-to-face, the type of postsecondary academic credential: Online college degree or face-to-face college degree, hiring gatekeepers and education mode, academic rigor, and educational quality are presented.

Completing a postsecondary college degree program is considered a differentiator in one's opportunities in the workplace and is forecasted to become increasingly important for leveraging organizational leadership opportunities (Pew Research Center, 2014; Spence, 1973, 2002). Increases in the costs of attending college, coupled with the uncertainties of the employment market, continue to fuel skepticism about the value of completing academic credential programs (Pew Research Center, 2014). Yet surveys of college graduates in the cohort groups of Baby Boomers, Generation Xers, and Millennials found that the majority of college graduates believed their education has been worthwhile and valuable in improving the quality of their lives and improved employment opportunities after graduation (Gallup, 2014, 2018). Complicating matters further is the continual expansion of fully online learning, a popular mode of education among students who cannot commit to attending face-to-face colleges because of their work schedules, disabilities, family responsibilities, or other life challenges (Allen et al., 2016; Brandau-Brown, 2013; Gambescia & Paolucci, 2015; Tabatabaei & Gardiner, 2012). Many students who select the mode of online learning are adults with families, active members of the workforce, or military personnel, whose core responsibilities make online education, because of its flexibility and asynchronous delivery, the only practical and realistic option for completing a college degree program (Lauver et al., 2013; McPherson & Bacow, 2015).

In recent years, many face-to-face institutions with superior reputations have added online courses to face-to-face academic programs or introduced fully online degree programs, indicating that higher learning administrators consider online delivery mode a

value-added proposition for students (Bristow et al., 2011; Gregori, 2015). Some educators believe that academically strong students gravitate toward face-to-face learning, while weaker learners prefer online education. However, when students with high scholastic results in face-to-face learning mode answered questions about the ease of online education more than 70% stated they were overwhelmed by the demands, accountability, time management, and personal discipline required for the successful completion of online courses and degree programs (Gambescia & Paolucci, 2015; Gomez, 2013; McPherson & Bacow, 2015; Moore & Morton, 2017; Nash, 2015; Natale et al., 2015).

Education Delivery Mode: Online or Face-to-Face

Joining online learning communities continues to increase in popularity. 6.5million students, representing 33% of all college attendees, are engaged in online learning because they have multiple responsibilities and lead busy lives. More than 71% of academic leaders believe that online and face-to-face learning outcomes are comparable (Allen et al., 2016; Best Colleges, 2019; Brandau-Brown, 2013; Lee English, 2013; Reamer, 2013; Tabatabaei & Gardiner, 2012) Flexibility and convenience are two of the most important factors when deciding to return to higher education by enrolling in a postsecondary academic credential program (Gambescia & Paolucci, 2009; Lauver et al., 2013). The design of online learning requires diligence and commitment in a time-sensitive environment; presence is monitored and expected with a lack of accountability leading to academic failure. The accreditation of online universities aims to demonstrate educational worthiness to people outside of the accrediting organization in the business

community (Gambescia & Paolucci, 2015; Gaskell & Mills, 2014). Perhaps the flexibility and convenience preferred by students coupled with the brand marketing of online learning and the perceived ease of online coursework influence public opinion and recruiters' perceptions about the lack of credibility, value, and legitimacy of online degree programs (Fogle & Elliott, 2013; Kaupins et al., 2014; Natale et al., 2015).

Postsecondary online and face-to-face education delivery modes attract students from very diverse lifestyles with a focus on degree completion to improve their life circumstances (Hagelskamp et al., 2013). However, the acceptance of online college degrees polled less favorably with employers than face-to-face degrees, driven by lower perceptions of academic rigor, educational quality, and the quality of faculty (Gallup, 2014). Contrary to the critics of online education, some educators believe online learners can outperform face-to-face students because of their ability to access differentiated online learning tools, their extensive access to scholarly literature; and, the requirements of online discussions as relevant, substantive, and contextually knowledgeable communication to and from a global group of classmates (Gregori, 2015; Nguyen, 2015). Literary comparisons between online and face-to-face college degree programs are popular opinion pieces or present analysis on the differences between online and face-to-face learners. Few research studies have sought to uncover the reasons at the root of the education delivery controversy, highly relevant as well-known face-to-face college programs add an abundance of online elements to their course structures or create fully online degree programs (Caza, Brower, & Wayne, 2015).

Research about online learning reveals that critics anchor their arguments on premises that academic credentials from online colleges are flawed and lack credibility for multiple reasons, including online college marketing strategies, and inferior academic rigor and educational quality (Gambescia & Paolucci, 2015). Concerns about the teaching methods of adjunct and permanent faculty members, online modalities eventual replacement of face-to-face education, online college being less difficult than face-to-face colleges, individualized online learning lacking relationship building, the inherent inability of online schools to control plagiarism, and disagreements about the validity of grading and assessment of student work dominate the literature (Borges & Forés, 2015; Fogle & Elliott, 2013; Gaskell & Mills, 2014; Haynie, 2014; Kaupins et al., 2014; Lauver et al., 2013; McPherson & Bacow, 2015; Natale et al., 2015).

Gambescia & Paolucci (2015) and Natale et al. (2015) compared online and face-to-face learning delivery and provided extensive support for the challenges students face in completing online academic programs and the demands of online curricula. According to Natale et al. (2015), online for-profit-colleges have modified the framework which characterizes education as a socially beneficial commodity because of the popularization of the college experience and for-profit business models; thereby, creating ethical conflicts between students and faculty. She claimed that grading expectations were influenced monetarily. The commercialization and economic prioritization of an online college education seemed to create distrust among hiring managers, with only half of them perceiving that online degrees were legitimate credentials, a subjective view with real-life consequences for online graduates. For-profit online colleges insist they focus on

preparing students for the workplace as the foundation of their programs; a positive approach designed to improve learners' prospects for employment, matching the reasons of more than 71% of online college enrollees (Best Colleges, 2019; Desai et al., 2016).

Natale et al. (2015) asserted that knowledge was the only true product in the data-driven approach at for-profit online schools and argued that social discourse and converting knowledge into wisdom is limited to face-to-face schools because of the human support system that only face-to-face colleges possess. The opinions of Natale et al. (2015) implied that the application of knowledge and wisdom as a critical thinker was inadequate in the online learning environment. For-profit online colleges were perceived as privatizing college education with little market value in exchange for monetary gain; a murky unethical tradeoff. Arguments concerned the lack of ethics in for-profit online education mode, insisting the system delivered merely rote dissemination of knowledge which indoctrinated students over the Internet, without institutions owning the responsibility for students' to use their education for social benefit and community development (Reamer, 2013).

Gambescia and Paolucci (2015) studied the marketing strategies of online colleges. They compared the marketing practices of more than 200 online colleges offering fully online degrees. The results indicated that the marketing message of nearly 80% of online colleges overwhelmingly stressed the importance of flexibility and convenience as opposed to the quality of faculty and online course content in comparison to face-to-face schools and the life-changing benefits of college degree attainment. Perhaps the marketing strategies of online colleges are a source of perceived distrust of

online degrees because, as common with marketing claims like new and improved or best in class, consumer judgment precludes both trial and acceptance (Gambescia & Paolucci, 2009; Natale et al., 2015).

Advertised images of life-altering, time-demanding academic responsibilities that couple online learning and mobile technologies with childcare responsibilities, vacation enjoyment, or carefree dining experiences send controversial signals. Characterizing online degree completion as easily integrated into a learner's schedule may intensify concerns regarding educational integrity; a preeminent demand of worthy academic credentials. The perception of simplified postsecondary credential attainment contradicts the normalized socially-acceptable dynamic of classroom presence as the optimal venue for academic learning (Cai, 2013; Gambescia & Paolucci, 2015; Reamer, 2013). In actuality, fully online graduate degree programs are a considerable endeavor requiring time management, persistence, and active engagement; yet in contrast, the marketing of online learning portrays online college as a simple lifestyle addition completed at the learner's convenience. Perhaps transparency in mass messaging which focuses on academic integrity, the equality of online and face-to-face learning, and a student's multiple investments toward degree completion, would illustrate the online education industry's commitment to high academic standards and change the public perception concerning the value, credibility, and legitimacy of online degrees (Fogle & Elliott, 2013; Gambescia & Paolucci, 2015; Kaupins et al,. 2013; McPherson & Bacow, 2015).

In 2000, The United States Army officially approved Internet learning as a core component of a soldier's continuing education program so military personnel could earn

college degrees and professional certifications while they served the country because of the accessibility of online platforms from anywhere in the world. The Army's top leadership believed that online learning would become a critical difference-maker in advancing knowledge and skills in the quest to improve soldiers' scholastic abilities and leadership capabilities (Eskey, 2002). The Army's successful integration of online learning led to its implementation by The United States Marines, Air Force, and Navy, along with United States Intelligence agencies (Dubik & Allen, 2015; Eldridge, 2013; Vleck, 2013).

The Army's approach to leadership training consists of online discussion forums and simulations pertinent to leadership decision-making, and peer learning, which brings soldiers of all experience levels together, similar to face-to-face after action-reviews at a military base (Eskey, 2002; Hesselbein et al., 2004). Beginning in 2005, the Navy implemented online courses in orientation, history, ethics, and policy as required basic training and rank-based online professional development courses; in addition to creating an online reference library applicable to all military personnel (Vleck, 2013). The Air Force has used online leadership skill training for more than 10 years, and the always-accessible, self-paced online courses and development programs continue to attract military members at a rapid pace (Mahoney-Norris & Ackerman, 2012). United States' Intelligence agencies offer multiple opportunities for their personnel to earn security certifications online (Eldridge, 2013). The United States military's continual use and expansion of online learning speak demonstratively to the legitimacy and credibility of online learning in the public domain.

Student perceptions concerning the equality of learning experiences in online and face-to-face classes continue to improve, attributable to the levels of engagement, reflexive communication, and discipline required of online students (Kelly & Rebman Jr., 2014; Preston, 2014). The mode of education delivery as a differentiator in student success in college degree programs may be of lesser concern to academic administrators than the study of the human trait of motivation. Examining student motivations, diverse learning environments, and educational outcomes of online learners may benefit the academic community (Gaskell & Mills, 2014; Gregori, 2015; Tichavsky et al., 2015). Motivation is a dominant topic in scholarly literature in comparisons of student preferences between online and face-to-face education delivery modes (Brandau-Brown, 2013; Sitzmann, Brown, Ely, Kraiger, & Wisher, 2009; Tichavsky et al., 2015).

Establishing students' tendencies to perform well academically through personal identification with online or face-to-face education delivery modes shows signs of links to intrinsic and extrinsic motivation (Brandau-Brown, 2013; Hartnett, 2012; Tichavsky et al., 2015). Intrinsic motivation, the internal desire to accomplish something for personal satisfaction, seems to align with online learning because of the independence of its design, the deeply reflexive nature of its construct, its self-determination style for completion, active learning, and the need for meeting time accountabilities in the virtual environment (Daloz, 1986; Kelly & Rebman Jr., 2014; Preston, 2014; Sitzmann et al., 2009). Extrinsic motivation, engaging in an activity because of an external stimulus for reward, may be an indicator of a student's face-to-face learning preference dependent on human interaction, in-person coaching and feedback, and immediate validation of

assignments. The possibility of passive learning is always possible in face-to-face environments, whereas online learning is an active process (Hartnett, 2012; Sitzmann et al., 2009; Tichavsky et al., 2015). Learners in face-to-face environments have the benefit of building a face-to-face relationship with an instructor; however, they risk being held back intellectually if some students in the class prevent the forward progress of the course curriculum (Gregori, 2015; Lee English, 2013).

The element of motivation further complicates the debate between students' acclimation to online and face-to-face education because changing social circumstances often alters impetus as people develop into adulthood and face challenges throughout their lifetimes (Cranton, 2006; Daloz, 1986; Mezirow, 1990; Turner & Patrick, 2008). One of the most influential factors for attending college is gaining advantages in the employment market (Church, 2014; Gallup, 2018; Jackson, 2016). Personal and career improvements are two compelling reasons people choose to return to college with goals of earning a degree (Gainey & Dukes, 2013; Kriner et al., 2015; Preston, 2014). The designers of academic online curricula strive to align college learning outcomes with many of today's crucial workplace skills like critical and strategic thinking, effective written communication, self-discipline, adaptability, flexibility, results-oriented engagement, and the ability to participate in virtual teams located throughout the world (Iordanoglou & Ioannidis, 2014; Zheng & Warschauer, 2015).

In 2016, faculty associates at a western United States university conducted a qualitative study about perceptions of the online group mode of learning and team interaction. The results of the study indicated that more than 80% of the teachers believed

the group environment had a positive effect on learning. However, the most disconcerting outcome was a lack of trust within groups because of low participation rates, failure to meet group imposed deadlines, and disdain for accountability to the group leader. Recommendations included the individualizing of grading rubrics to include more elements of participation and accountability for each team member (Wade et al., 2016). The team experiences in online learning test the resolve of learners who may have to carry multiple life responsibilities during assignment completion, representative of encountering more than their share of the workload in organizational environments.

Research demonstrated that some college faculty members might ease students' behavioral or academic requirements to the detriment of their workplace and leadership readiness, perhaps contributing to some graduates' laissez-faire attitudes of indifference; possibly leading to a resistance for discipline (Holmes, 2015; Jackson, 2016; Schnee, 2008; Smith & Worsfold, 2015; Wade et al., 2016). High expectations are common in the workplace because of the impact that ineffective or inappropriate communication, poor decision making, and unprofessional behaviors have on multiple stakeholders of an organization, including customers, co-workers, and management (Bonaiuto, De Dominicis, Illia, Rodríguez-Cánovas, & Lizzani, 2013). Organizational brand sustainability may also be at risk if corporate policies are not enforced consistently and effectively for all workers (Campana & Peterson, 2013; Schein, 1999). Employers expect well-mannered productive employees in the workplace environment, often demanding more rigorous performance in comparison to academic settings (Jackson, 2016). In the virtual learning mode, technology presents educators with opportunities to leverage

differentiated learning strategies and create realistic simulations applicable to business challenges and conflict resolution skills for the benefit of students.

Designing a course to mirror a business environment has proven to be an effective method of teaching students to experience the workplace in a holistic manner rather than strictly from an academic viewpoint. Elements of one particular class included high levels of accountability for communication when writing emails to fictional employees about challenging legal topics, conducting a proposal for a prospective client, and presenting work to the instructors in a professional business manner. Following workplace policies and engaging in ethical behaviors were part of the grading criteria, and students received feedback on assignments from a business perspective instead of grading on an academic curve. Incomplete assignments received a score of zero, and instructors did not accept late work (Campana & Peterson, 2013).

Students in the class completed surveys toward the beginning and at the end of the class. More than 80% of the respondents liked the class design and felt their accountability, and self-determination for success were beneficial. More than 70% of the students indicated they felt better prepared for the workplace as a result of the course. Eighty percent of students believed they could apply the business concepts in the real-world and stated the course should continue in the school's learning curriculum (Campana & Peterson, 2013). Students considering a return to higher education are well-advised to examine real-world interests and choose college degree programs that align course outcomes to their chosen careers (Holmes, 2015; Jackson, 2015; Klebnikov, 2015).

College attendance is significantly more complicated for adult learners aged 25-54 seeking to return to a learning program that will support improvements in their social standing, learn skills to replace a job made obsolete by the economy or globalization through no fault of their own, or make a career change (Caza et al., 2015; Gregori, 2015; Jackson, 2016; Potgieter & Coetzee, 2013). The debate between online and face-to-face college delivery seems fueled by doubts about alternative modes of education, dislike of college marketing strategies, disagreements about the quality and rigor of online programs, and concerns regarding student performance assessment and grading consistency. Allegations that online degree providers are purposefully glamourizing the college experience and presumptive opinions that face-to-face degrees are better because historically, they have always been better are common arguments. When questioned, many college students state that online learning is more difficult than face-to-face learning because of the autonomy, demands on time management, and high accountability for meeting online course requirements (Gambescia & Paolucci, 2015; Gregori, 2015; Meskill, 2013).

Hartnett (2012) and Tichavsky et al. (2015) indicated that student learning preferences and motivation often dictate student success in a particular mode of educational delivery. Gambescia & Paolucci (2015), Natale et al. (2015), and Reamer (2013) stated that online graduation rates were lower than in face-to-face environments, and some researchers argued that faculty standards and academic expectations conflicted with profit motives in the online environment. While making comparisons between the modes of education delivery is natural and responsible, perhaps shifting the focus to

developing effective measurements of all college graduates' knowledge, skills, and readiness for the workplace, which reflect students' aspirations for earning postsecondary education credentials, would provide a more objective evaluative process concerning the learning outcomes of differing educational delivery modes.

Credential Type: Online College Degree or Face-to-Face College Degree

Higher education academic programs strive to provide foundational knowledge and promote skill mastery. The importance of earning a postsecondary academic credential faces scrutiny as public demands for predictable financial returns from college attendance cause potential students to question the worth and value of academic credentials. Some high school graduates may attempt to join the workforce to pursue career opportunities and avoid the monetary and time commitments of attending college (Deterding & Pedulla, 2016; McKenzie, 2017). Employers insist that employees need a combination of technical skills, soft skills, critical thinking, and strategic decision-making abilities to succeed in the workplace because computer systems and organizational complexity have become an integral part of business operations (Desai et al., 2016). Online academic programs give students the flexibility to complete academic learning without the logistical conflict or geographic boundaries of face-to-face education. Providing graduates with skills and knowledge to be competitive and competent candidates in the workplace is a worthy goal of all institutions of higher learning. Guiding students toward career opportunities that help them prosper in society is necessary to empower future economic sustainability.

The emergence of microdegrees earned from MOOCs offer alternatives to 4-year degree programs. MOOCs utilize faster technologies, digitized communications, and social media to deliver credentials (Etherington, 2017). In online and MOOC learning environments, sharing genuine business experiences in online discussions provides real-world context to course content; and multiple examples of real-life situations serve to add value to virtual classrooms and educate other students about workplace realities (Gregori, 2015; Helyer & Lee, 2014; Rosch & Caza, 2012). Acknowledging recruiters' roles as powerful and decisive gatekeepers of the interview process and including recruiters in the discussion of graduates' abilities to successfully cross the boundary between education and the workplace may add valuable perspectives beneficial to academic administrators, faculty, and industry.

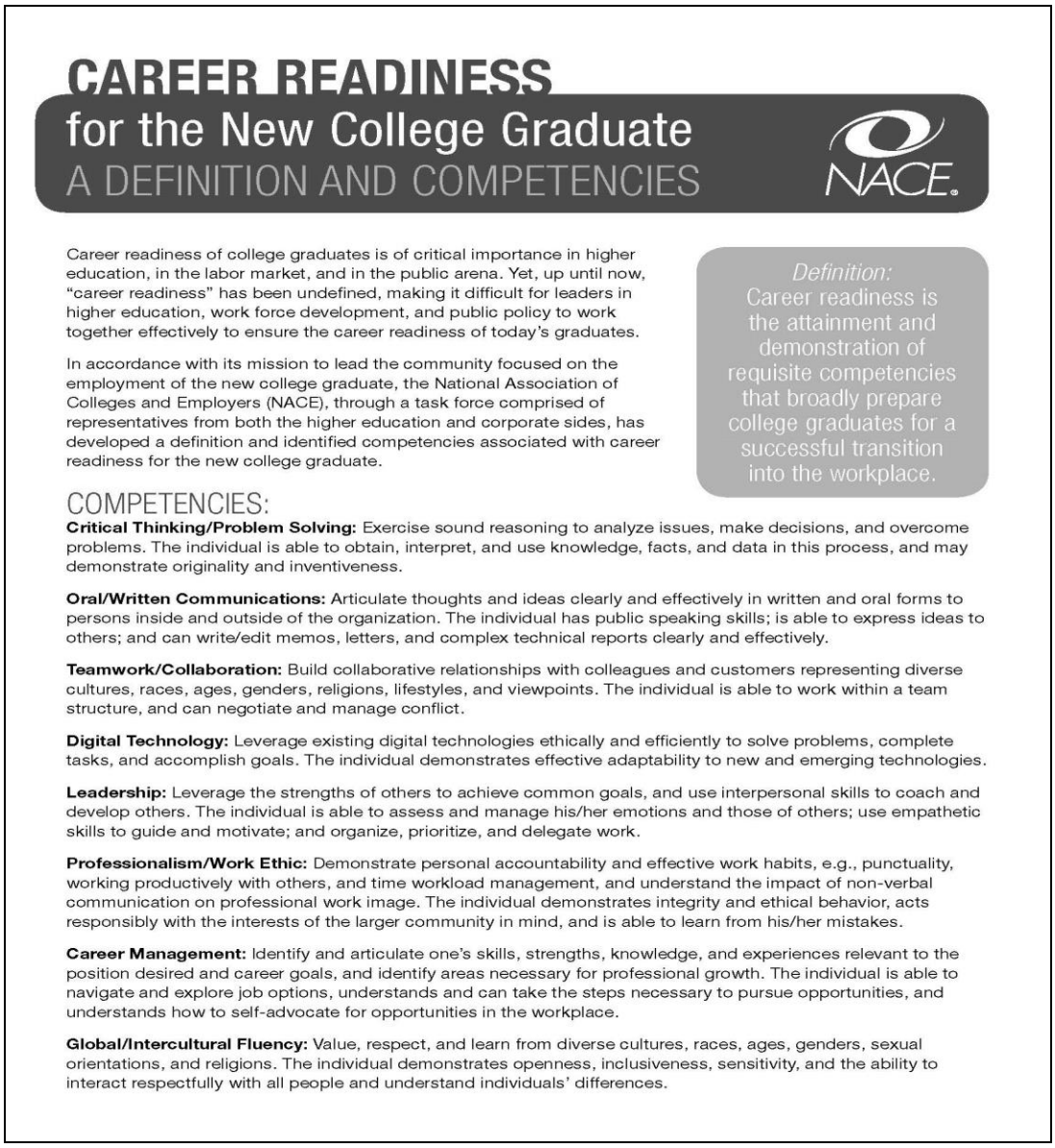
Hiring Gatekeepers and Education Delivery Mode

Earning a college degree either online or face-to-face, may seem rigorous to students during their programs, and accreditation may confirm the positive reputation of a college to the academic community. However, recruiters' opinions of a particular learning institution may influence their consideration and recommendation of applicants to employers. Recruiters evaluate graduates' readiness and potential for successful performance when considering applicants for any workplace position (McMurray et al., 2016; Mishra, 2014).

Completion of a college credential program does not guarantee that graduates would obtain a job commensurate with their personal perception of the degree, nor ensure their ability to meet an employer's job requirements (Silva, Lourtie, & Aires, 2013). Both

online and face-to-face schools could consider adding workplace competency programs with elements of experiential learning to help support student goals of career readiness and post-college employment to promote educational return on investment (Helyer & Lee, 2014; Johnston, 2017; McKenzie, 2017). Although nearly 100% of today's college administrators believe higher education programs prepare students for the workplace, less than 12% of recruiters deem graduates ready to succeed in organizational settings after graduation (Cruzvergara et al., 2018). College graduates' lack of business etiquette remains a key concern for employers who cite problems with customer communication, professional courtesy, tardiness and absenteeism, and, poor ethical standards as overarching employee issues (Church, 2014).

Higher education leadership has been under pressure from many stakeholders: Parents, students, business owners, and elected public officials, to provide college experiences resulting in graduates' job readiness. In 2014, NACE began developing an empirical definition of career readiness by identifying and recommending educational core competencies necessary for college students to acquire to succeed in transitioning and transferring learning to the workplace. NACE conducted several employer surveys to gain career readiness perspectives from outside of academia. The agreed-upon competencies mirror the skills that many employers believe college graduates lack after completing degree programs (Cruzvergara et al., 2018; National Association of Colleges and Employers, 2018b). In 2018, NACE considered eight core competencies (see Figure 1) essential to career readiness.



CAREER READINESS
for the New College Graduate
A DEFINITION AND COMPETENCIES

NACE

Career readiness of college graduates is of critical importance in higher education, in the labor market, and in the public arena. Yet, up until now, "career readiness" has been undefined, making it difficult for leaders in higher education, work force development, and public policy to work together effectively to ensure the career readiness of today's graduates.

In accordance with its mission to lead the community focused on the employment of the new college graduate, the National Association of Colleges and Employers (NACE), through a task force comprised of representatives from both the higher education and corporate sides, has developed a definition and identified competencies associated with career readiness for the new college graduate.

Definition:
Career readiness is the attainment and demonstration of requisite competencies that broadly prepare college graduates for a successful transition into the workplace.

COMPETENCIES:

Critical Thinking/Problem Solving: Exercise sound reasoning to analyze issues, make decisions, and overcome problems. The individual is able to obtain, interpret, and use knowledge, facts, and data in this process, and may demonstrate originality and inventiveness.

Oral/Written Communications: Articulate thoughts and ideas clearly and effectively in written and oral forms to persons inside and outside of the organization. The individual has public speaking skills; is able to express ideas to others; and can write/edit memos, letters, and complex technical reports clearly and effectively.

Teamwork/Collaboration: Build collaborative relationships with colleagues and customers representing diverse cultures, races, ages, genders, religions, lifestyles, and viewpoints. The individual is able to work within a team structure, and can negotiate and manage conflict.

Digital Technology: Leverage existing digital technologies ethically and efficiently to solve problems, complete tasks, and accomplish goals. The individual demonstrates effective adaptability to new and emerging technologies.

Leadership: Leverage the strengths of others to achieve common goals, and use interpersonal skills to coach and develop others. The individual is able to assess and manage his/her emotions and those of others; use empathetic skills to guide and motivate; and organize, prioritize, and delegate work.

Professionalism/Work Ethic: Demonstrate personal accountability and effective work habits, e.g., punctuality, working productively with others, and time workload management, and understand the impact of non-verbal communication on professional work image. The individual demonstrates integrity and ethical behavior, acts responsibly with the interests of the larger community in mind, and is able to learn from his/her mistakes.

Career Management: Identify and articulate one's skills, strengths, knowledge, and experiences relevant to the position desired and career goals, and identify areas necessary for professional growth. The individual is able to navigate and explore job options, understands and can take the steps necessary to pursue opportunities, and understands how to self-advocate for opportunities in the workplace.

Global/Intercultural Fluency: Value, respect, and learn from diverse cultures, races, ages, genders, sexual orientations, and religions. The individual demonstrates openness, inclusiveness, sensitivity, and the ability to interact respectfully with all people and understand individuals' differences.

Figure 1. Career readiness for the new college graduate: A definition and competencies. National Association of Colleges and Employers (2018). Retrieved from http://www.naceweb.org/career-readiness/competencies/career-readiness-defined/

Educational leaders, academic administrators, and faculty deserve high praise for empowering career services departments to help students achieve career readiness. Many institutions of higher learning now prioritize the support of career services departments

and expect counselors to help ensure student career and workplace readiness after graduation. The career service departments of some colleges embrace the NACE career readiness competencies and accept responsibility for teaching and counseling students to achieve the career competency outcomes. However, career service departments may not understand or consider recruiters' perceptions of education delivery mode or their perceptions of applicants' workplace and leadership readiness. College graduates would certainly gain advantages by learning the NACE competencies during college and demonstrating knowledge of those competencies during interviews. Inexplicably, recruiters' assessment of educational experiences and academic credentials remains a subjective and unpredictable element of the applicant evaluation process (Cruzvergara et al., 2018).

Graduates' skill sets are a crucial component of applicant evaluation by recruiters, and communication skills are a cornerstone of advancing in an interview process (Hill, Mehta, & Hynes, 2014; Holmes, 2015; Lazarus, 2009). The demands of the employment market could edify college curriculums, and online and face-to-face schools would benefit by constantly updating the content of college degree programs to provide graduates with current and relevant academic coursework useful to job procurement after graduation (Cai, 2013; Chertkovskaya, Watt, Tramer, & Spoelstra, 2013; Jackson, 2013; Klebnikov, 2015; Tewari & Sharma, 2016). College curriculums would benefit students by teaching them the core responsibilities of the workplace and promote a thorough understanding of leadership principles and skill sets that affect organizational performance (Marx, 2014). Concerns about student demands for a measurable return on

investment in postsecondary higher education learning are a critical factor in college attendance (Gallup, 2017, 2018; McKenzie, 2017). Assumptions that recruiters understand the meaning of academic rigor and educational quality in college degree programs may bring additional uneasiness to college graduates as they present applications for employment because recruiters' assessments of educational qualifications as they relate to college graduates' workplace and leadership readiness is not established.

Academic Rigor

Scholarly literature portrays academic rigor in education as an abstract challengeable and changeable concept with varying interpretations of its definition from both faculty and student perspectives. Heated debates concerning academic rigor grew out of K-12 elementary education and the No Child Left Behind Act of 2001 (Draeger et al., 2013; Duncan et al., 2013; Schnee, 2008). The law intended to increase student learning and improve faculty accountability by implementing federal minimum standards in math and reading measured by standardized testing with the goal of continuous improvement in student test results. The rigorous teaching of knowledge, formulas, and factual content in school curriculums meant that students would be more prepared for college and adulthood (Schnee, 2008; Strauss, 2015). Acknowledging and embracing the focus on elementary and high school students, colleges and universities began to evaluate and attempt to define academic rigor within their institutions as a means of improving postsecondary learning and ensure students were gaining expected marketable advantages from academic credentials (Cai, 2013; Draeger et al., 2013; Duncan et al., 2013).

Academic rigor is a set of scholarly standards and expectations common to the academic community. Lacking a distinct definition, academic rigor seems to have become a moving target so students feel challenged with coursework at a flexible level, their capacity for achievement characterized by the notion that educators can only identify academic rigor when students display it as part of their academic behavior (Draeger et al., 2013; Duncan et al., 2013; Schnee, 2008). The fact that academia cannot state a universal definition of academic rigor seems to place recruiters in a disadvantaged position to assess rigorous learning as an indicator of college graduates' workplace and leadership readiness and potential for achieving organizational success.

In a qualitative study of a union-sponsored college worker education program (WEP), faculty and student interviews revealed a suspect system of ensuring academic rigor was in-place for training and developing students. This particular program attracted a group of female enrollees more than 45 years old who were experienced in the workplace, out of school for more than 20 years, and unprepared for the demands of college work. Students paid a fee to attend the program with goals of improving their workplace opportunities. Reputable faculty hired from major area universities disagreed about the participants' abilities to maintain rigorous academic standards, particularly when presented with students who were ill-prepared to pass the courses (Schnee, 2008).

A conflict emerged when students began challenging grading; believing they always deserved excellent grades because they were paying for the program, regardless of their inabilities to meet academic standards when attending the classes. One group of faculty members explained that empathy for the participants convinced them to lower

academic standards. Students who did not accomplish the rigorous expectations of WEP, which were on-par with faculty's full-time academic programs, were still given passing grades. Another group of teachers stated that the lack of educational resources at WEP created roadblocks to student development. WEP's administrators insisted they recognized the problem and were working to reconcile faculty members' compassion for students and their grading inconsistencies with the standards of the program's rigor expectancy and grading accountabilities (Schnee, 2008).

Although low academic standards have been synonymous with poor educational outcomes in multiple communities, this group of WEP faculty members played a major role in facilitating lower standards because they allowed students to turn in work that was inferior to the program's stated course outcomes. However, other instructors at WEP refused to lower the expected standards of academic rigor and held to the same standards required by their full-time on-campus programs. When a group of students challenged these instructors about their grading practices, the instructors responded to the students using a social justice platform. They argued that students paying for education expected the best value for their money, and randomly lowering standards did not provide students with the potential for the quality of life improvements students deserved when completing educational programs (Bristow et al., 2011; Nash, 2015; Schnee, 2008).

Schnee's (2008) study highlighted many troubling circumstances regarding faculty adherence to the standards of academic rigor applicable to any mode of education. Academic expectations and outcomes must be made clear to students by education providers, and 100% of faculty must be held accountable by academic administrators to

grade student work honestly; based on course expectations and systematic grading criteria to ensure educational integrity. Faculty grade manipulation or lowering of standards to accommodate low student performance illustrates serious concerns for administrators, which could result in disciplinary actions to faculty (Nash, 2015). Ethically, student and faculty recognition of the need for honesty and transparency in communications may help build sustainable methods for encouraging, supporting, and developing classrooms of fully engaged learners who strive for continual excellence in their educational journeys.

Employers view academic rigor much differently than achieving course outcomes by meeting a set of common educational standards; suggesting that educational testing alone may not be adequate to meet the needs of the modern workplace. In terms of practical business expectations, rigor manifests as critical thinking, effective communication, and strategic actions. These competencies are essential to demonstrating agility, adapting, analyzing, and innovating solutions to problems in increasingly complex organizational environments (Uhl-Bien, Marion, & McKelvey, 2007; Wagner, 2008). Multiple business leaders have expressed that one of the most sought-after characteristics of workers is their ability to engage in results-oriented discussions and ask excellent questions (Church, 2014; Wagner, 2008).

Collaboration is becoming exceptionally important because of the lean business models and geographical distancing of offices demanding more use of technology, virtual software, web-meetings, and synchronous computer systems (Hill et al., 2014; Wagner, 2008). The ability to rapidly process information is a necessity in today's workplace, and

organizations expect new workers to leverage technologies, improve efficiencies, and demonstrate technological expertise (Moore & Morton, 2017; Morrison, 2010). This business perspective of academic rigor focuses on teaching students to compete in the global workplace; requiring academic content which allows teachers to structure curriculums that inspire student's critical thinking, encourage problem-solving, challenge learners to demonstrate practical application, and promote accountability from students at all levels of postsecondary education (Morrison, 2010; Wagner, 2008).

Many organizational leaders recommend the expansion of online student testing to include completion of the College and Work Readiness Assessment (Wagner, 2008). Educational systems need to adapt to the fast movements of the knowledge economy by teaching the managerial complexities indicative of economic success (Morrison, 2010; Stukalina, 2008). Loose definitions of academic rigor encourage multiple interpretations of educational standards, inferring that non-elite colleges or online colleges lack academically rigorous degrees. This societal perception is detrimental to graduates' opportunities because recruiters may not view job candidates with differing academic credentials equally in the employment marketplace (Fogle & Elliott, 2013; Kaupins et al., 2014; Knoedler, 2015; Lee English, 2013; Natale et al., 2015).

In 2011, graduate students completed surveys, and faculty conducted focus groups as participants in a mixed-methods study to assess academic rigor in the online component of a blended learning (face-to-face and online) course at The University of Wyoming (Duncan et al., 2013). The study intended to understand students' perceptions of academic rigor ahead of the university's expansion of online course delivery. The

debate created by the No Child Left Behind Act of 2001 is referenced in the discussion of rigor, which the researchers agree is a complex term involving both students and faculty, academic challenge, and curriculum design (Duncan et al., 2013). The literature review and subsequent structure of academic rigor used in the study include Schnee's (2008) observations of deep learning, critical processing, reflective applicability, and Wagner's (2008) conceptions of rigor from a business view considered necessary in all levels of postsecondary education. Academic challenge, scholastic demand, and content difficulty are also discussed relative to the concept of academic rigor, articulating the disagreement synonymous with the lack of empirical information about rigorous outcomes in online and face-to-face learning. Students expected excellent organization in the design and instructional content of the online portion of a course, perceiving the extra time spent searching for assignment directions as irresponsible teaching, which monopolized their time (Duncan et al., 2013).

The student surveys in the correlational analysis indicated that students perceived academic rigor as the difficulty of the courses and the demands on their time to complete the coursework. There was a low correlation between academic rigor and the overall learning occurring in the course; however, a different picture of academic rigor emerged from open-ended comments by focus group participants (Duncan et al., 2013). Although students had significant preferences regarding the delivery mode of learning, they stated that delivery mode did not control the academic rigor of the course. Student and faculty engagement were shown to be important reciprocal elements of academic rigor. Online instructors stimulated learning by participating in course discussion forums, presenting

topics for students to discover, critically evaluate, and apply; thereby encouraging students to construct new knowledge through reflection (Daloz, 1986; Mezirow, 2000). Focus group comments indicated that academic rigor depended on instructors' abilities to create challenging learning materials and students' abilities to produce exceptional learning experiences as a result. This interpretation of academic rigor revealed that a collaborative learning partnership between students and faculty is necessary. The responses of the focus group students made very clear that their beliefs concerning academic rigor grew out of the quality of teaching and organization of the learning curriculum (Duncan et al., 2013). Accountability is seen as an essential element of academic rigor because students must make bold commitments to accept personal responsibility to apply their learning with goals to add value to society.

This view of academic rigor proposed a definition that encompasses multiple ideas about student motivations for learning, the student and teacher dynamics involved in rigorous learning, the content and challenge of the curriculum, and the organization of the coursework; without regard or mention of the mode of education delivery. From the testing and observations presented by Duncan et al. (2013), the argument that online learning lacks academic rigor seems to challenge the actions of both students and faculty. Failure by students or faculty to accept a stake in student learning and accentuate the potential for beneficial outcomes prevents the formation of a dynamic and engaging learning environment necessary in any rigorous learning experience. The pursuit of academically rigorous learning inspired other colleges and universities to chart a course of improvement in their strategic planning initiatives.

In 2009, a Buffalo State University research team conducted a mixed-methods study using the National Survey of Student Engagement (NSSE), a survey measuring student perceptions of academic challenge across the higher institution network, as a baseline toward improving the concept of academic rigor at the school. A departmental cross-section of faculty took part in initial discussions focused on the definition of academic rigor. Without agreeing on a definitive definition, participating faculty members contributed multiple ideas toward the tenets of its construct. Focus groups compared the faculty's ideas of rigor against the NSSE survey answers and qualitatively coded the results, then created a survey distributed to all school faculty members of the top results emerging from the coding. With more than 100 survey responses from tenured faculty, the quantitative analysis yielded multiple teaching and learning academic elements as the ingredients of academic rigor. Critical and higher-order thinking, faculty organization of materials, student preparation and synthesis of materials, and transformative learning through student engagement were all considered essential elements of academic rigor (Draeger et al., 2013). At the conclusion of the study, Buffalo State University adopted the philosophy that academic rigor is "… for students to learn meaningful course content actively with higher-order thinking at the appropriate level of expectation" (Draeger et al., 2013, p. 275). This model of academic rigor applies to any delivery mode of education; online or face-to-face, and is illustrated by the diagram in Figure 2 (Draeger et al., 2013; Duncan et al., 2013).

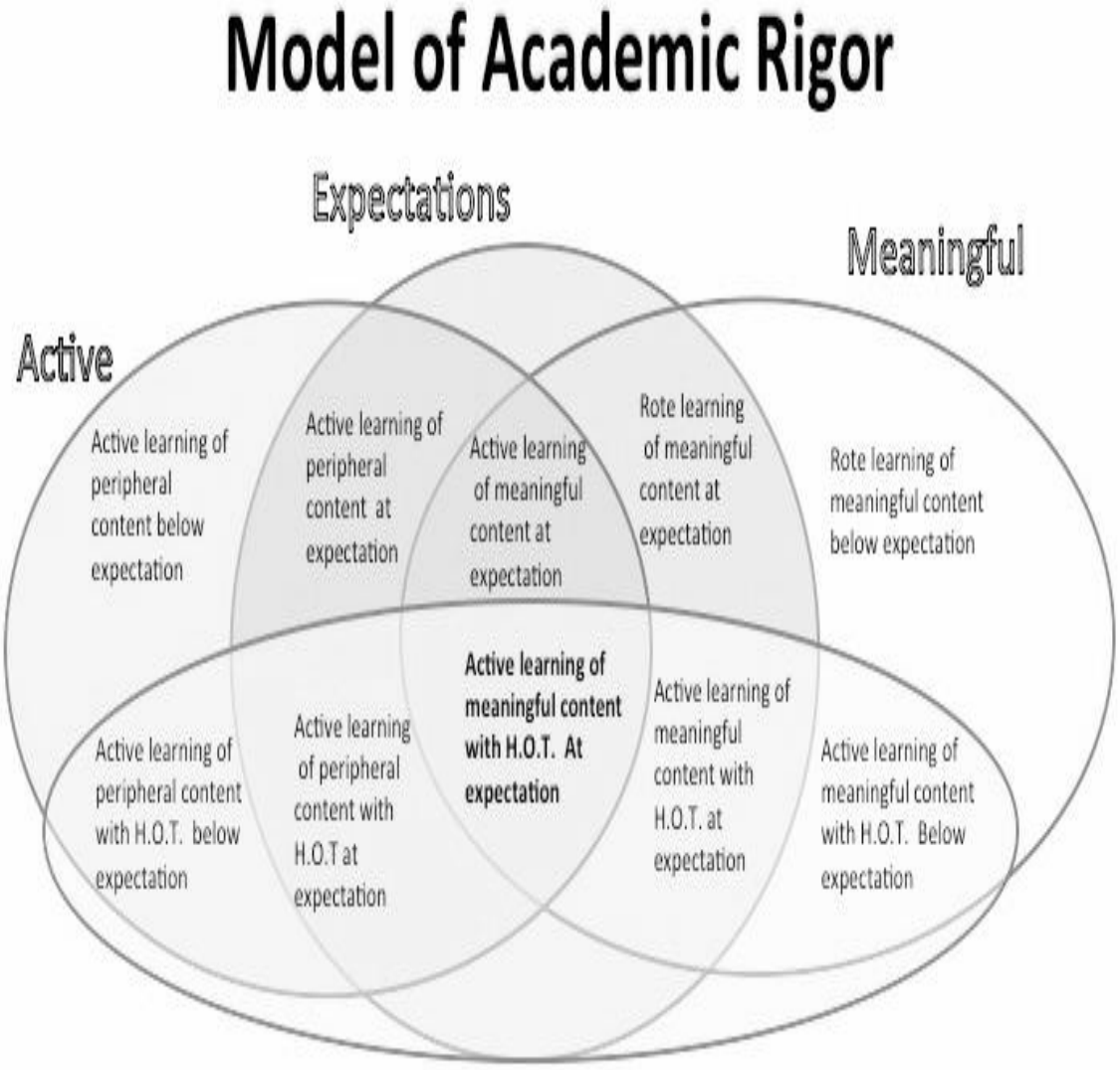


Figure 2. Overlap between meaning, active learning, higher-order thinking, and expectations. (Draeger et al. 2013). The anatomy of academic rigor: The story of one institutional journey. *Innovative Higher Education*, *38*(4).

Continually challenging the definition of academic rigor underscores academia's potential to pursue and constantly restate an empirical definition from a scholarly perspective; yet creates questions for recruiters who have no method of confirming or

substantiating that academic rigor exists in any particular college degree program. Measuring academic rigor in workplace assessments seems a more difficult task. If recruiters' use of assessments to measure knowledge, personality, and soft skills lead to better applicant selection, then colleges could embrace policies to teach rigorous workplace and leadership readiness competencies to better serve its students. Questions then arise about how employment recruiters would measure college graduates' rigorous learning applicable to the position the applicant is seeking. This remedy assumes that recruiters can assess candidates' work in an academic light without benefit of a strict understanding of the definition of academic rigor.

One's unique perspectives of academic rigor, perhaps gleaned through prior education experiences, or socially accepted perceptions based on a school's name or history, may affect graduates' workplace opportunities. A major factor in recruiters' trustworthiness of a college degree is a school's reputation and societal recognition, a reflection of its perceived academic rigor and educational quality (Fogle & Elliott, 2013; Kaupins et al., 2014; Tabatabaei & Gardiner, 2012). The process of determining a college's educational quality seems a different discussion than the quest for academia to universally define academic rigor, and involves government expectations, accreditation reviews, and learning commission evaluations which lead to accreditations for operating within academically steadfast scholastic guidelines and upholding educational integrity.

Educational Quality

Educational quality is defined as the vigor and energy education administrators and faculty devote toward fulfilling the mission of higher education; the result of student

achievements in course, academic program, and institutional learning outcomes dependent on teaching and learning (Cobo, 2013; Jackson, 2016; McKenzie, 2017). The goal of continuously improving learning outcomes is paramount to ensuring excellence in all educational experiences (Gaskell & Mills, 2014). The Association of Governing Boards of Universities and Colleges (AGB) have tremendous oversight responsibilities for ensuring educational quality in higher learning institutions, defined as ensuring that the mission of higher education is met and confirming the accreditation process (Association of Governing Boards of Universities and Colleges, 2017). One of AGB's main goals is to understand the role of faculty and know the curriculums of the college programs overseen (Johnston, 2017). In the United States, a team of AGB commissioners and faculty from similar universities conduct site audits and interviews with students from both online and face-to-face programs (Bristow et al., 2011; Brittingham, 2009).

Historically, accreditation methods for new schools or renewals involve academic self-monitoring of standards. Evidentiary proof of the quality of learning consistent with the academic fabric and ethical operations required by the U.S. Department of Education must be demonstrated. In some accrediting agencies, the process may take up to 9 years to complete (Bristow et al., 2011; Brittingham, 2009; Friedman, 2016; Johnston, 2017). Technology continues changing the pace of education, while accrediting organizations are lagging far behind in their processes for confirming educational quality. Many face-to-face college degree programs consist of 4-years of study while online students often complete an equivalent program in less than 4 years. Timelines of credential completion can be incongruent with school accreditation because the certification process may

emerge slowly and take an excessive amount of time. If a learning institution lacks academic preparedness during a review, the accreditation evaluation process must be repeated (McKenzie, 2017). Transparency in the expectations of educational quality in technologically accessible written form may have the potential to better prepare colleges for the AGB evaluation and help streamline the accreditation process.

For students, achieving the course learning outcomes established by the AGB signifies the fulfillment of the scholastic requirements of their chosen academic degree program and validates the awarding of their academic credentials. Recruiters may recognize that accreditation confirms academic learning outcomes, yet remain skeptical of credential worthiness and value to the workplace. The recent closures of multiple postsecondary schools, some occurring in the midst of students attending classes, is evidence of a breach of trust in educational integrity; a problematic challenge in need of academic and perhaps regulatory solutions to ensure students a positive return on investment from postsecondary higher education (Bristow et al., 2011; Johnston, 2017; Quintana, 2019).

The fact that the U. S. Department of Education had to close numerous colleges due to breaches of trust further complicates the valuation and trustworthiness of postsecondary education programs. Financial liabilities incurred by students and the damaged reputation of the AGB are signs of weakness in the enforcement of educational integrity across the higher education industry from accreditor and administrative levels (Quintana, 2019). Socially, the understanding of educational quality, academic rigor, and the quality of education are subjective because the value of the academic model is under

pressure in the public domain (Lederman, 2007; McKenzie, 2017). When students have the potential to complete college degrees in half the time it takes to accomplish the accreditation process, the lack of speed, efficiency, and transparency of the academic accreditation process seems to compromise the integrity and credibility of the entire higher education system. For many college graduates, their purpose for attending online or face-to-face college is improving workplace and leadership skills. Credential earners hope that the collegiate learning experience, academic rigor, and educational quality of their higher education programs help them secure meaningful degree-related employment, advance at their current workplace, or successfully change careers.

The purpose of this study was to investigate differences in recruiters' perceptions of online and face-to-face higher education credentials as indicators of applicants' workplace and leadership readiness. Quantitative methodology and a non-experimental cross-sectional comparative survey design were used in this study. Increasing numbers of adults are returning to college in pursuit of workplace opportunity and advancement even though committing to the completion of an accredited postsecondary credential program in any higher education delivery mode is a significant time and monetary investment (Gambescia & Paolucci, 2015; Linardopoulos, 2012). Technological changes have diversified postsecondary education and expanded the availability of online and face-to-face academic programs. Applicants' goals of leveraging academic credentials toward securing gainful employment in the workplace or preparing themselves for leadership positions may be complicated by their choice of degree (Cruzvergara et al., 2018; Helyer

& Lee, 2014; Holmes, 2015; Jackson, 2013; Kaupins et al., 2014; Tewari & Sharma, 2016).

This chapter included the strategy for searching the literature relevant to this study. An explanation of the theoretical foundation of the research and a review of the key variables in a literature review were also presented. A summary of emergent themes ends Chapter 2.

Summary and Conclusions

One of the most important roles of the higher education system is providing transformative educational experiences that support the widening of students' worldviews with academically rigorous content and educational quality. Stakeholders in higher education view graduates' attainment of postsecondary college credentials as credible indicators of academically rigorous and quality educational achievement. Recruiters' assessments of academic rigor and educational quality, their personal educational experiences as learners, and prior results with graduates from various education delivery modes affect their perceptions of applicants' employment qualifications. Online education has continually received lower ratings of academic rigor and educational quality compared to face-to-face academic programs. Questions concerning the academic rigor and educational quality in comparisons between online and face-to-face schools may initiate bias against online graduates. Previous researchers called for a more detailed study on recruiters' perceptions of academic rigor and educational quality in online and face-to-face education delivery modes and noted that the passage of time might alter some of the outcomes of their studies.

The empirical meaning and application of academic rigor and educational quality in the context of education remain a source of contention in the academic community. A paradox concerning the criticism of academic rigor and educational quality of online education causes concerns in the entire educational system because of the continually subjective conflicts regarding empirical definitions of both academic rigor and educational quality. The entire debate over academic rigor and educational quality seems founded on human perceptions and ambiguity because no standard measurements of evaluation are consistent or customary for either online or face-to-face education.

The absence of empirical standards of academic rigor and educational quality throughout the higher education system seems to indicate that each academic entity has the freedom to develop unique interpretations of a student's academic performance. A dilemma that may contribute to an inaccurate assessment of the holistic value of any college credential earned in any education delivery mode, based on the fact that the metrics of academic rigor and educational quality remain subject to interpretation and universally undefined in the field of education. The increasing popularity of online education provided good cause for filling a gap in research by conducting a current and deeper study of recruiters' perceptions of education delivery mode and applicants' workplace and leadership readiness and striving to understand recruiters' perceptions of the academic rigor and educational quality of online and face-face postsecondary academic credential programs.

In Chapter 3, I present the research method. I took a quantitative approach to data analysis using non-parametric Mann-Whitney *U*, Kruskal-Wallis *H*, and parametric one sample *t*-testing. A test of reliability is also included.

Chapter 3: Research Method

The purpose of this study was to investigate differences in recruiters' perceptions of online and face-to-face higher education credentials as indicators of applicants' workplace and leadership readiness. Quantitative methodology and a non-experimental cross-sectional comparative survey design were used in this study. Increasing numbers of adults are returning to college in pursuit of workplace opportunities and advancement, even though committing to the completion of an accredited postsecondary credential program through any higher education delivery mode is a significant time and monetary investment (Gambescia & Paolucci, 2015; Linardopoulos, 2012). Technological changes have diversified postsecondary education and expanded the availability of online and face-to-face academic programs. Applicants' goals of leveraging academic credentials toward securing gainful employment in the workplace or preparing themselves for leadership positions may be complicated by their choice of degree (Cruzvergara et al., 2018; Helyer & Lee, 2014; Holmes, 2015; Jackson, 2013; Kaupins et al., 2014; Tewari & Sharma, 2016). This study used an online survey to elicit recruiters' perceptions of postsecondary education delivery mode and applicants' workplace and leadership readiness. Recruiters' perceptions regarding the worth of academic credentials and their applicability to applicants' workplace and leadership readiness is a substantial gap in research worthy of investigation.

Chapter 3 discusses the research design and rationale of the study. Quantitative methodology and the operationalization of the variables are presented. Procedures to

ensure reliability and prevent threats to validity and ethical procedures used in the study are discussed.

Research Design and Rationale

A non-experimental cross-sectional comparative survey design was the approach taken to study comparisons between recruiters' perceptions of education delivery mode and applicants' workplace readiness. The independent variables were chosen based on a review of studies by Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner (2012) concerning the hiring of graduates with online and face-to-face college degrees. The dependent variables emerged from the research questions and are factors that affect decision-making by recruiters based on their perceptions of applicants' online or face-to-face academic credentials.

Independent Variables

- Recruiter's age, gender, and industry.
- Type of postsecondary academic credential: Online college degree, face-to-face college degree, or professional certification.
- Recruiter's highest earned credential: Bachelor's degree, master's degree, doctorate degree, professional certification, or no college degree.
- Recruiter's experience with education: Face-to-face only, online only, or blended: a combination of online and face-to-face.
- Education delivery mode: Online or face-to-face.

Dependent Variables

- Recruiters' perceptions of applicants' workplace readiness.

- Recruiters' perceptions of applicants' leadership readiness.
- Recruiters' perceptions of the academic rigor in online and face-to-face postsecondary academic programs.
- Recruiters' perceptions of the educational quality in online and face-to-face postsecondary academic programs.
- Recruiters' perceptions of the trustworthiness of online and face-to-face postsecondary academic credentials.

Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner (2012) conducted research regarding recruiters' attitudes toward online and face-to-face college degrees that used Likert-style surveys and some method of quantitative analysis. Their studies measured employment recruiter, human resource manager, and hiring manager opinions regarding online and face-to-face education, online and face-to-face college degree holders' attractiveness in the job market, and the credibility of online and face-to-face academic credentials. This study will advance knowledge in this field by determining differences in recruiters' perceptions of education delivery mode, academic rigor, educational quality, academic credential trustworthiness, and applicants' workplace and leadership readiness.

The career worth of postsecondary academic credentials and return on investment of college attendance have both been called into question by educators, social scientists, government, and the popular media in the United States. Workplace complexities and organizational demands for competent work-ready job candidates and competent leaders

may place some college graduates at a disadvantage in the employment marketplace depending on recruiters' assessments of academic credentials (Campana & Peterson, 2013; Holmes, 2015; Wagner, 2008). Online college degree programs continue to increase in popularity and are viewed as a resource for self-improvement, inspiring approximately 6.5million college students, 33% of all college attendees, to enroll in online courses. Adult learners over age 25 comprise 81% of this online student community, pursuing unearned academic credentials, improved workplace opportunities, or career advancement (College Atlas, 2017; Best Colleges, 2019; Center for Online Education, 2019). These facts challenge recruiters' viewpoints regarding the worth of graduates' academic credentials, job skills, competencies, and qualifications deemed transferrable to the workplace.

A cross-sectional online Higher Education and Workplace Readiness Survey posted on Survey Monkey gave all recruiters across the global employment marketplace the opportunity to complete surveys at their convenience within a designated time frame. Internet technology minimized time and resource constraints because the survey was available and accessible to participants via the Survey Monkey web site 24 hours a day. A survey design was chosen to collect data about the current state of recruiters' perceptions of education delivery mode and applicants' workplace and leadership readiness. The Higher Education and Workplace Readiness Survey (see Appendix B) elicited responses about recruiters' perceptions of education delivery mode and applicants' workplace and leadership readiness. Lodico et al. (2010) stated that surveys using Likert-style scales were excellent instruments to measure attitudinal data because

they ask closed-ended questions, and participants' answers are required to be within an ordinal range on the answer scales.

Quantitative methods were used to analyze collected data to understand the numeric values of the answers and used the results to accept or reject the null hypotheses. This study explored differences in recruiters' perceptions of education delivery mode, online and face-to-face, and applicants' workplace and leadership readiness. This study took a quantitative approach to analyze the topic of online education. Mann-Whitney *U* and Kruskal-Wallis *H* tests are non-parametric tests appropriate for measuring differences in two samples that may result in non-normal distributions in the significance curve. This testing method allowed for the ranking of the survey answers, an important consideration for reducing the effect of outlier responses, which skew data distribution. Rankings present more accurate results when studying online education (Allen & Seaman, 2007). After ranking the variables by comparing the groups, the Mann-Whitney *U*-test revealed whether two variables indicated significant statistical differences were present. The Kruskal-Wallis *H* test allowed for comparing two or more groups in one independent sample. The one sample *t*-test analyzed the mean of the collected data with the known test value on a differential scale by using an exact mid-point between the extremes on the Likert-type scale (Lakens, 2017; Shieh et al., 2006). Visual representations of the quantitatively analyzed data resulted in the generation of tables, figures, and percentages.

Methodology

Population

The target population for this study was all recruiters across the global employment marketplace. An Internet search of professional recruiter groups on numerous websites gave me access to a worldwide population of recruiters in multiple industries, improving the chances for high participation in the study. A search on LinkedIn of recruiters yielded a potential population size producing more than 70,500 results, including the U.S. and international networks such as Recruiter.com and Recruiter's Connection LLC, which offered a global directory of recruiting firms. A search of recruiters on Google yielded more than 100,000 results. I invited recruiters found in the LinkedIn and Google searches and those listed in the global directory of recruiting firms with the goal of maximizing participation in this study (LinkedIn, 2017; Middleton, Bragin, & Parker, 2014). Additionally, I networked with recruiters via telephone and in-person to encourage participation and asked them to encourage their colleagues to participate, thereby spreading awareness of the study by word of mouth.

Sampling and Sampling Procedures

Comprehensive self-selected sampling allowed recruiters in any industry to participate, and all respondents had an equal opportunity for inclusion in the study. The justification for using comprehensive self-selected sampling was its ability to help me minimize researcher bias and support the goal of generalizing the results to the larger recruiter population provided representativeness of the population was possible (Pawliszyn, 2012). The survey design supported the choice of comprehensive self-

selected sampling because of ease of accessibility to the Higher Education and Workplace Readiness Survey (see Appendix B) and the potential to attract a large participant group. Upon logging in to Survey Monkey and clicking on the survey link, the participants were asked to complete an informed consent before completing the survey.

I used the Mann-Whitney *U*, Kruskal-Wallis *H*, and one-sample *t*-tests to analyze the collected data. Comprehensive self-selected sampling exceeded the minimum of 154 participants accorded by a sample size table based on balanced group sizes and the exact variance method with a significance level of $p = .05$ at a power of .90 (Shieh et al., 2006). Efforts were made to increase the sample size by e-mailing large numbers of recruiter websites, thereby reducing the margin of error and yielding better accuracy when generalizing the results to the larger recruiter population. The sample size needed to be large enough to give adequate power for rejecting the null hypotheses. I received 159 responses, making the analysis procedure applicable based on the small sample size provisions of Mann-Whitney *U* and Kruskal-Wallis *H* non-parametric testing, and the one-sample *t*-test (Lakens, 2017; Shieh et al., 2006).

Procedures for Recruitment, Participation, and Data Collection

I used the Internet to recruit participants by e-mailing letters to recruiting organizations identified by a search for recruiters on LinkedIn and Google. Professional recruiting firms and their members were e-mailed invitations explaining the study and asking them to voluntary participate (see Appendix A). The Internet provided access to a large population of recruiters, improving the chances for high participation in the study (Middleton et al., 2014). I contacted recruiters using social media websites Facebook,

LinkedIn, and Twitter and used the global directory of recruiting firms which is available on the LinkedIn website. Additionally, I networked with recruiters via telephone and in-person to affirm my identity, encourage participation, and seek their endorsements by asking recruiting colleagues to participate; thereby spreading awareness of the study by word of mouth. I followed up networking visits with reminder e-mails. Participation in this study was voluntary. Demographic variables collected by the survey were recruiters' age, gender, industry, highest earned credential, and recruiters' experience with education: Face-to-face only, online only, or blended: a combination of online and face-to-face.

An informed consent was attached to the survey link on the Survey Monkey website and informed respondents that data were collected anonymously, that the Higher Education and Workplace Readiness Survey (see Appendix B) was being conducted as part of a dissertation, that answers would not be shared with anyone else, and no one else would have access to their answers. The informed consent also stated that their responses would be included as a part of data analysis captured through automatic polling tools on the Survey Monkey website and stated they would be able to contact me at alanfaingold@WaldenU.edu or through the IRB at Walden University (approval number 01-04-19-0327408) with any questions. After consenting, the participants were taken to the survey. Data was collected with the survey posted on the Survey Monkey website (Survey Monkey, 2017). The participants exited the study after completing the Higher Education and Workplace Readiness Survey (see Appendix B), and no follow-up participation was required. As the participants were exiting the survey, I thanked each

recruiter for participating and informed them that the results of the study would be published in a dissertation and in academic or business journals at a future date.

Instrumentation and Operationalization of Constructs

Instrumentation. I developed the Higher Education and Workplace Readiness Survey (see Appendix B) used in this study. The survey was informed by studies conducted by Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner (2012) regarding human resource managers, hiring managers, and recruiter perceptions concerning the attractiveness, hiring, and promotion of online and face-to-face college degree holders.

Qualifying factors contributing to applicant attractiveness for hiring by information technology recruiters' and their online educational experiences was the topic of a study by Tabatabaei and Gardiner (2012) and informed section 1 of the Higher Education and Workplace Readiness Survey (see Appendix B): Perceptions of postsecondary online and face-to-face education delivery mode. Section 2 of the Higher Education and Workplace Readiness Survey (see Appendix B): Perceptions of academic rigor of college degree programs was informed by studies by Fogle and Elliott (2013) and Kaupins et al. (2014). Section 3 of the Higher Education and Workplace Readiness Survey (see Appendix B): Perceptions of educational quality of college degree programs was informed by studies by Fogle and Elliott (2013) and Kaupins et al. (2014). Societal objections regarding the lack of academic rigor and educational quality of online college programs substantiated an investigation into recruiters' perceptions of those pillars of education (Fogle & Elliott, 2013; Kaupins et al., 2014). Section 4 of the Higher

Education and Workplace Readiness Survey (see Appendix B): Perceptions of postsecondary education trustworthiness was informed by Fogle and Elliott's (2013) study about the value, legitimacy, and credibility of online degrees, and Kaupins et al.'s (2014) study about the hiring and promotion decisions of hiring managers.

Articles concerning the worth of college degrees and workplace and leadership readiness presented in the literature review (Campana & Peterson, 2013; Hagelskamp et al., 2013; Moore & Morton, 2017) informed many of the survey questions and were essential to the design of the Higher Education and Workplace Readiness Survey (see Appendix B). The survey questions depict multiple elements inherent to recruiters' responsibilities for evaluating applicants' workplace and leadership readiness. The survey was designed to reflect recruiters' assessments of education credentials presented on applicants' resumes, delving into recruiters' perceptions of postsecondary degree importance, the applicability of online and face-to-face academic credentials, the academic rigor of postsecondary academic programs, the educational quality of postsecondary academic programs, and applicants' workplace and leadership readiness. The Higher Education and Workplace Readiness Survey (see Appendix B) also asked questions about the trustworthiness of academic credentials, based on literature written by Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner (2012), which explained reasons for recruiters' online degree acceptance or resistance. These studies widened the scope of this study by exploring recruiters' understanding of the academic rigor and educational quality of online and face-to-face postsecondary academic credential programs.

Invitations to participate in the study were sent to recruiters using LinkedIn, Facebook, and Twitter and by e-mailing recruiters across the global employment market found when searching Google. I also handed out invitations and described the study during in-person office visits with recruiters. Construct validity was addressed by ensuring that my development of each construct was operationalized in a measurable way, and the scale labeling supported accuracy in the survey answers (Messick, 1995; Trochim, 2006). To ensure the internal consistency reliability of the Higher Education and Workplace Readiness Survey (see Appendix B); I conducted a pilot study with a group of recruiters selected from the LinkedIn website. Construct validity assured that the instrument was designed to measure actual recruiters' perceptions of postsecondary education delivery mode and applicants' readiness for the workplace and leadership positions (Lodico et al., 2010).

To reduce the threat of confounding variables and underrepresentation, definitions of the terms academic rigor and educational quality, which may be uncommon to recruiters' evaluation of applicants, were provided in the letter to recruiters (see Appendix A) inviting their participation in the study. Proof of construct validity was established by the results of the survey pre-test; all participants in the pre-test understood the wording in each question as they related to the constructs, which demonstrated that the survey questions measured the intended observations (Lodico et al., 2010; Messick, 1995; Trochim, 2006).

After survey data was collected, a reliability analysis was conducted in SPSS, yielding a Cronbach's alpha reliability coefficient to measure the internal consistency of

the questionnaire. A Cronbach's alpha coefficient was also calculated for each question on the Higher Education and Workplace Readiness Survey (see Appendix B) to ensure it measured the construct it was purported to measure (Preston & Colman, 2000). When survey questions yield consistent answers, the construct (variable) is considered reliable (Santos, 1999). Cronbach's alpha testing yields a score between -1 and 1; however, a negative number is never acceptable. In the social sciences, a minimum coefficient of .70 is acceptable, with the goal of .80 or higher being optimal (Preston & Colman, 2000). The reliability analysis for each construct on the Higher Education and Workplace Readiness Survey (see Appendix B) is presented in Table 1.

Table 1

Reliability Analysis

Survey Construct	Cronbach's Alpha	Number of Items
Perceptions of online and face-to-face delivery mode	.93	16
Perceptions of academic rigor	.89	7
Perceptions of educational quality	.82	7
Perceptions of trustworthiness	.58	3

Cronbach's alpha reliability coefficients above .80 for the constructs of online and face-to-face delivery mode, academic rigor, and educational quality indicated that the survey questions delivered consistent and reliable answers. The construct of perceptions of trustworthiness produced a reliability coefficient of .58. This low score is a reflection of two problems inherent to Cronbach's alpha testing; only 3 items were tested, and each question measured different elements of the same construct (Preston & Colman, 2000; Santos, 1999).

The Higher Education and Workplace Readiness Survey (see Appendix B) assessed the perceptions of the recruiters who participated in the study. Demographic variable data was collected through questions 2, 3, 4, 5, and 6 regarding recruiters' age, gender, industry, recruiters' highest earned credential, and recruiter's experience with education delivery. The remainder of the Higher Education and Workplace Readiness Survey (see Appendix B) used 7-point Likert-type scales to examine recruiters' perceptions directly applicable to the research questions. Section 1 of the survey consisted of 16 questions about postsecondary degree importance and perceptions of postsecondary education online and face-to-face credentials using ordinal Likert-type scales. Section 2 of the survey contained 7 questions about perceptions of the academic rigor of college degree programs using ordinal Likert-type scales. Section 3 of the survey contained 7 questions about perceptions of the educational quality of college degree programs using ordinal Likert-type scales. Section 4 of the survey contained 3 questions regarding perceptions of postsecondary education trustworthiness using ordinal Likert-type scales and 3 questions using differential scales to compare varying types of academic credentials.

Operationalization of Variables

The operationalization of the variables yielded the following numerical values regarding recruiters' demographic profile perceptions of education delivery mode and applicants' workplace and leadership readiness.

Independent Variables

Demographic variables. The demographic variables of age, gender, industry,

recruiters' highest earned credential, and recruiters' experience with education yield the following operational definitions.

Age. In a person, age is a measurement of the number of years of existence since birth.

Gender. Gender indicates whether the participant is a man (M) or a woman (W); measured nominally; 1 for men (M), and 2 for women (W).

Industry. Industry represents an employment sector of the workplace. Recruiters are responsible for resume evaluation, interviewing, and recommending the most qualified job applicants to employers in varying industries. The North American Industry Classification System (NAICS) is a coded list of employment sectors. Recruiters' answers to the survey question: What is the primary industry for which you recruit were coded into categories using NAICS industry codes (NAICS Association, 2018) (see Appendix C).

Recruiters' highest earned credential. The operationalization for this variable is 1 for a bachelor's degree, 2 for a master's degree, 3 for a doctorate degree, 4 for professional certification, and 0 for no college degree.

Recruiters experience with education. The operationalization of this variable is 1 for face-to-face only, 2 for online only, and 3 for blended: a combination of face-to-face and online.

Education delivery mode. The independent variable of education delivery mode is operationalized by the definitions of online and face-to-face college degree programs. Online delivery mode means attending a fully asynchronous college degree program

using digital technologies and requiring no physical presence in a classroom during the educational process (Allen et al., 2016; Gregori, 2015). Face-to-face educational delivery requires students' presence in a physical classroom, in the presence of an instructor (Gallup, 2018; Hagelskamp et al., 2013). Education delivery mode is measured nominally using the number 1 for online and the number 2 for face-to-face.

Types of credential degree programs. Types of credential degree programs included online or face-to-face bachelor's degrees, master's degrees, or doctorate degrees completed to fulfill the requirements of a college degree program; or a non-degree professional certification which requires no college attendance. This independent variable was measured on an ordinal scale using 1 for bachelors' degrees, 2 for masters' degrees, 3 for doctorate degrees, and 4 for professional certifications.

Dependent Variables

Academic rigor. Academic rigor was defined as a set of scholarly standards and expectations common to the academic community. For the purpose of this study, academic rigor emerged from the literature review as a collaborative association between academic leaders, faculty, and students producing the level of challenge of educational curricula coupled with the required intensity of students' engagement and quality of deliverable assignments that reflect one's potential behaviors and actions in the workplace (Draeger et al., 2013; Morrison, 2010; Wagner, 2008).

Educational quality. Educational quality was defined as the vigor and energy education administrators and faculty devote toward fulfilling the mission of higher education; the result of student achievements in course, academic program, and

institutional learning outcomes dependent on teaching and learning (Cobo, 2013; Jackson, 2016; McKenzie, 2017). For the purpose of this study, educational quality is the academic perception that the accreditation of online and face-to-face colleges and the excellent reputation of its faculty indicates that its students receive an exemplary, trustworthy, and transformative educational experience (Bristow et al., 2011; McKenzie, 2017).

Leadership readiness. Leadership readiness is an employer expectation that college graduates are prepared to lead other people in a managerial or senior leadership role (McCracken et al., 2016; Moore & Morton, 2017; Torrez & Rocco, 2015; Wagner, 2008).

Trustworthiness of college credentials. Trustworthiness of college credentials asserts that postsecondary academic credentials earned in online or face-to-face delivery modes are considered virtuous and indicate applicants' workplace or leadership readiness (Fogle & Elliott, 2013; Kaupins et al., 2014).

Workplace readiness. Workplace readiness is an employer expectation that college graduates have learned the necessary skills and knowledge for becoming a productive member of a hiring organization (Jackson, 2016; McCracken et al., 2016; Moore & Morton, 2017).

The Likert response scores represent recruiters' range of perceptions and opinions when answering the survey questions. I decided to use 7-point Likert-type scales to allow participants a wide range of discriminating power between endpoints on the scale (1-7). With the exception of the defining midpoint (4) in the differential questions in section 4

of the Higher Education and Workplace Readiness Survey (see Appendix B), no other scale labels were appropriate to use because of the imprecise distances between potential descriptors. This action allowed the respondents a greater degree of freedom to assess their perceptions. The scales elicited thoughtful responses when evaluating the constructs; Likert-type scales of 7, 9, and 10 points have been shown to yield the most reliable scores in the social sciences (Preston & Colman, 2000).

Each response was counted individually and of equal importance to the study. Each question was important to measure the constructs and equally weighted. In the four sections of the Higher Education and Workplace Readiness Survey (see Appendix B): perceptions of online and face-to-face delivery mode, perceptions of academic rigor in college degree programs, perceptions of educational quality in college degree programs, and perceptions of postsecondary education trustworthiness.

Fogle & Elliott (2013) and Kaupins et al. (2014) suggested recruiter bias against online college degree holders in favor of face-to-face college graduates except in cases when respondents had positive attitudes about their online education experiences. Potentially strong positive or negative attitudes about online and face-to-face educational delivery mode had the potential to elicit highly polarized survey responses. Attempting to analyze skewed data based on mean scores would produce inaccurate results and conceal the separation of responses. Averaging Likert ordinal data was not possible because the exact distance between the response buttons was imprecise and unknown (Allen & Seaman, 2007).

The inconsistency in the distance between the points on the answer scale and the potential for extreme outlier responses supported using the inter-quartile range (IQR) to measure the dispersal of the data and determine where the majority of answers were located in relation to the median to better understand the distribution of the survey scores. IQR was calculated by listing the numerical responses from the surveys and subsequently dividing them into four equal groups. The formula for calculating IQR is subtracting the first quartile from the third quartile; IQR = $Q_3 - Q_1$. Lower IQR numbers (1 or 2) demonstrate similarities in participant responses; higher numbers (3 or 4) indicate strongly polarized responses. Using IQR to measure the spread of data points from the median delivered greater accuracy and insight when interpreting the collected data (Decker, 2018).

Data Analysis Plan

Responses were electronically collected on the Survey Monkey website. The software tracked the number of participants who agreed to participate in the study and the number of completed surveys and displayed the percentage of recruiters who completed surveys. Survey Monkey data were transferred to SPSS software to conduct the reliability analysis, Mann-Whitney *U,* Kruskal-Wallis *H,* and one sample *t*-test statistical analyses.

The survey elicited responses to answer the following research questions:

Research Questions

RQ1 – Are there differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' workplace readiness?

Ho1 – There are no significant differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' workplace readiness.

Ha1 – There are significant differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' workplace readiness.

RQ2 – Are there differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' leadership readiness?

Ho2 – There are no significant differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' leadership readiness.

Ha2 – There are significant differences in recruiters' perceptions of postsecondary education degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion on applicants' leadership readiness.

RQ3 – Are there differences in recruiters' perceptions of applicants' workplace readiness attributable to postsecondary education online or face-to-face credentials?

Ho3 – There are no significant differences in recruiters' perceptions of applicants' workplace readiness attributable to postsecondary education online or face-to-face credentials.

Ha3 – There are significant differences in recruiters' perceptions of applicants' workplace readiness attributable to postsecondary education online or face-to-face credentials.

RQ4 – Are there differences in recruiters' perceptions of applicants' leadership readiness attributable to postsecondary education online or face-to-face credentials?

Ho4 – There are no significant differences in recruiters' perceptions of applicants' leadership readiness attributable to postsecondary education online or face-to-face credentials.

Ha4 – There are significant differences in recruiters' perceptions of applicants' leadership readiness attributable to postsecondary education online or face-to-face credentials.

RQ5 – Are there differences in recruiters' perceptions concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness?

Ho5 – Recruiters' perceive no significant differences concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness.

Ha5 – Recruiters' perceive significant differences concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness.

RQ6 – Are there differences in recruiters' perceptions concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness?

Ho6 – Recruiters' perceive no significant differences concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness.

Ha6 – Recruiters' perceive significant differences concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness.

RQ7 – Are there differences in recruiters' perceptions concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness?

Ho7 – Recruiters' perceive no significant differences concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness.

Ha7 – Recruiters' perceive significant differences concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' workplace readiness.

RQ8 – Are there differences in recruiters' perceptions concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness?

Ho8 – Recruiters' perceive no significant differences concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness.

Ha8 – Recruiters' perceive significant differences concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' leadership readiness.

RQ9 – Are there differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials?

Ho9 – There are no significant differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials.

Ha9 – There are significant differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials.

Mann-Whitney *U*-testing determined if a difference was present between the mean ranks of one independent variable and one dependent variable. Mann-Whitney *U* assumes two independent samples representing groups come from an identical population. Mann-Whitney *U* does not require a normal distribution of data for dependent variables. The Kruskal-Wallis *H* test extended the Mann-Whitney *U* because I was able to analyze two or more groups of one independent variable for one dependent variable. The one sample *t*-test analyzed the mean data against a known test value to compare

differences in recruiters' perceptions of trustworthiness between postsecondary online and face-to-face academic credentials. The analysis results and tables are displayed in the results section.

I used the results of the Mann-Whitney *U*, Kruskal-Wallis *H*, and one sample *t*-test analyses to draw conclusions regarding the probability of statistical differences or no differences as the indicators for accepting or rejecting the null hypotheses. Comprehensive self-selected sampling yielded 159 participants, more than the required minimum of 154 participants according to a sample size table based on balanced group sizes and the exact variance method with a significance level of $p = .05$ at a power of .90 using the Mann-Whitney *U* and Kruskal-Wallis *H* non-parametric and one sample *t*-tests to analyze the data (Lakens, 2017; Shieh et al., 2006). Effect size was measured in two ways: By calculating the difference in mean ranks between groups (Rovai, Baker, & Ponton, 2014) and by calculating an approximation of the *r* coefficient as suggested by Rosenthal (1991): $z/\sqrt{N}$. Effect size was interpreted using Cohen's (1988) criteria for estimating small, medium, and large effects sizes for different metrics: small > .10, medium > .30, and large > .50 (Fritz, Morris, & Richler, 2012). 95% confidence intervals were included to depict the true value of the mean of participants' answers between certain values on the scoring scale (Dunst & Hamby, 2012).

Threats to Validity

Using the Internet to post and collect survey data supported the validity of the study because I had no access to the participants' responses; reducing the potential for personal bias. The questions on the survey provided answers they were expected to

provide and measured what the survey was designed to measure, and the aggregation of the data was used for the validation or invalidation of hypothetical claims (Lodico et al., 2010; Messick, 1995). The reliability of the self-developed Higher Education and Workplace Readiness Survey (see Appendix B) was a threat to internal validity. This threat was mitigated during the development of the survey by taking a pilot approach and sending the surveys to a panel of practicing recruiters for feedback to ensure similarity to the target population and allowed for feedback via the pre-testing of the survey before beginning the data collection phase of the project. All participants in the pre-test understood the wording in each question as they related to the constructs indicating that the survey questions produced the intended observations (Trochim, 2006).

Threats to construct validity were underrepresentation, which allowed for unclear dimensions and differing interpretations of constructs by participants; and irrelevance, which allowed for scoring bias or hypothesis guessing by participants (Messick, 1995). The constructs of online and face-to-face education delivery and the trustworthiness of academic credentials are foundational elements of recruiters' assessments of job candidates. Recruiters' interpretations of the meanings of the terms academic rigor and educational quality may be inconsistent with the definitions provided in this study. To reduce the threat of underrepresentation, I included the definitions of academic rigor and educational quality in the letter to recruiters (see Appendix A). Evidence of construct validity was shown by the results of the survey pre-test. The ranges of answers on completed surveys in the pre-test provided evidence that hypothesis guessing by the test panel of recruiters was not evident. The threat of irrelevance due to scoring bias was

reduced by using a neutral and independent website to collect the data (Messick, 1995). Because the sample was of self-selected volunteers, the assumption of random sampling was being violated, a threat to external validity. External validity was not threatened by the sample size because the sample was large enough to generalize the results to the larger recruiter population, provided accurate representativeness of the population could be established. To mitigate the threat of external validity, results were interpreted conservatively.

Ethical Procedures

I was not involved in any personal or client relationship with the participants and had no knowledge of any prior participant involvement in this study. An informed consent informed respondents that data was collected anonymously, that the Higher Education and Workforce Readiness Survey (see Appendix B) was being conducted as part of a dissertation, that their answers would not be shared with anyone else, and no one else had access to their answers. Using Survey Monkey ensured the anonymity and confidentiality of the participants and my impartiality as the researcher; of significant importance because of my experiences as an online student and a business manager. Anonymity reduced the risk of harm to any participants in this study. The Institutional Review Board (IRB) expected participant protection. The participants completed the surveys voluntarily, and no coercion or payment was used to influence recruiter participation or influence answers. Individuals' survey answers were not shared with others and used solely for analysis in this study. My IRB approval number is 01-04-19-0327408.

Summary

Chapter 3 discussed the research design and rationale, the methodology, threats to validity, and ethical procedures used in the study. The non-experimental cross-sectional comparative survey design used Internet technology to capture, collect, and populate the data through Survey Monkey. The Higher Education and Workplace Readiness Survey (see Appendix B) was conducted by invitation to recruiters at a single point in time using multiple websites affiliated with the recruiting industry. A reliability analysis was presented. Mann-Whitney *U* and Kruskal-Wallis *H* testing examined differences in recruiters' perceptions of the independent variables on the dependent variables. The one sample *t*-test was used to analyze the mean data against a known test value for the differential question about differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials.

The self-developed and pre-tested Higher Education and Workplace Readiness Survey (see Appendix B), distributed among a group of recruiters before the study was conducted, ensured validity and reliability because each question was designed to measure what it was supposed to measure to answer the research questions. The chosen constructs were operationalized to yield accurate observations. After survey data was collected, a reliability analysis was conducted in SPSS to ensure the internal consistency and reliability of the Higher Education and Workplace Readiness Survey (see Appendix B). The ethical procedures ensured anonymity and confidentiality through the online delivery of the completed surveys. Participation was voluntary, and no coercion was used

to motivate participation in the study. In Chapter 4, I describe the data collection and survey results. Tables and figures depicting the data are also included.

Chapter 4: Results

The purpose of this study was to investigate differences in recruiters' perceptions of online and face-to-face higher education credentials as indicators of applicants' workplace and leadership readiness. RQ1 and RQ2 examined differences in recruiters' perceptions of degree importance based on recruiters' age, gender, industry, highest earned credential, and mode of completion associated with applicants' workplace or leadership readiness. RQ3 and RQ4 explored differences in recruiters' perceptions of applicants' workplace and leadership readiness attributable to postsecondary online or face-to-face credentials. RQ5 and RQ6 examined differences in recruiters' perceptions of applicants' workplace and leadership readiness associated with academic rigor in postsecondary online or face-to-face academic programs. RQ7 and RQ8 explored differences in recruiters' perceptions of applicants' workplace and leadership readiness associated with educational quality in postsecondary online or face-to-face academic programs. RQ9 investigated differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials.

Hypotheses for RQ1 and RQ2 stated there were, or were not, significant differences in recruiters' perceptions of degree importance based on recruiter's age, gender, industry, highest earned credential, and mode of completion associated with applicants' workplace or leadership readiness. The hypotheses for RQ3 and RQ4 stated there were, or were not, significant differences in recruiters' perceptions of workplace and leadership readiness attributable to postsecondary online or face-to-face credentials.

The hypotheses for RQ5 and RQ6 stated there were, or were not, significant differences in recruiters' perceptions of workplace and leadership readiness associated with academic rigor in postsecondary online or face-to-face academic programs. The hypotheses for RQ7 and RQ8 stated there were, or were not, significant differences in recruiters' perceptions of applicants' workplace or leadership readiness associated with educational quality in postsecondary online or face-to-face academic programs. The hypothesis for RQ9 stated there was, or was not, a difference in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials.

Chapter 4 consists of sections describing the data collection and demographic variable characteristics of the sample. Statistical data, interpretations of all research questions, and IQR calculations are also included. Tables and figures depicting the results of recruiters' answers to the Higher Education and Workplace Readiness Survey (see Appendix B) are presented.

Data Collection

Data collection was completed between January 17, 2019 and June 22, 2019. A total of 191 respondents began the survey, and 159 completed the survey, a participation rate of 82%. The survey questions were asked of a diverse group of recruiters in the global employment marketplace across multiple industries. I followed my collection plan by posting an introductory invitation (see Appendix A) and links to the survey on social media sites, Facebook, LinkedIn, and Twitter. I also posted the survey on my personal page on each of those sites. My collection strategy included conducting in-person visits

with recruiters to introduce the study and ask them to share the survey with their colleagues. No adverse events occurred during data collection.

Descriptive statistics (frequency, mean, standard deviation, and percentages) and rankings were used to examine the distribution of dependent variable data. The data was not normally distributed, so Mann-Whitney *U* and Kruskal-Wallis *H* tests were conducted. The one sample *t*-test was conducted on the differential question about academic credential trustworthiness (Lakens, 2017). Effect size was measured by calculating the difference in mean ranks between groups (Rovai et al., 2014) and by calculating an approximation of the *r* coefficient as suggested by Rosenthal (1991): $z/\sqrt{N}$. Effect size was interpreted using Cohen's (1988) criteria for estimating small, medium, and large effects sizes for different metrics: small > .10, medium > .30, and large > .50 (Fritz et al., 2012). Confidence intervals were calculated to establish with 95% confidence, the true value of the mean (central trend) of participants' answers to the survey questions (Cumming & Finch, 2005; Dunst & Hamby, 2012).

IQR was calculated to provide a description of participants' differing opinions regarding academic rigor, educational quality, and trustworthiness of credentials because the distances between answers on the 7-point Likert-type scale were imprecise. IQR improved the accuracy for assessing similarities between recruiters' responses by illustrating the distance from the median point on a 7-point Likert-type scale (4) and accounts for the actual distribution of responses. IQR values of 1 or 2 illustrated that recruiters' answers were similar, while 3 or 4 indicated responses that were far apart and highly polarized.

The demographic variables of the respondents were recruiters' age, gender, industry, highest earned credential, and experience with education. The study participants were 49% male (*n* = 78) and 51% female (*n* = 81). Ages of the participants were distributed in five groups: 18-24 (*n* = 6), 25-34 (*n* = 25), 35-44 (*n* = 30), 45-54 (*n* = 44), and 55 and above (*n* = 54).

On the Higher Education and Workplace Readiness Survey (see Appendix B), recruiters were asked the primary industry for which they recruited based on the NAICS code list (see Appendix C). For the analysis, I recoded the recruiting industries into five groups based on the placement of each industry into its proper economic sector. The primary sector (*n* = 2) is the raw materials sector and includes agriculture, forestry, fishing, hunting, and mining. The secondary sector (*n* = 25) consists of manufacturing, utilities, and construction. The tertiary sector (*n* = 80) is comprised of the wholesale trade, retail trade, transportation, warehousing, finance, insurance, real estate, health care, social assistance, arts, entertainment, recreation, accommodation, food services, public administration, and other services. The quaternary sector (*n* = 43) consists of educational services, information, professional, scientific, and technical services. The quinary sector (*n* = 9) includes executive staffing, which involves the management of companies, enterprises, and administrative personnel, support, and waste management remediation services (Rosenberg, 2019).

The survey questions regarding recruiters' educational experiences revealed their highest earned credential and mode of completion. Highest earned credential response data yielded the following results: recruiters with bachelor's degrees (*n* = 67), master's

degrees (*n* = 34), doctorate degrees (*n* = 10), professional certifications (*n* = 24), and no degree (*n* = 24). Participants' experiences with education response data yielded the following results: face-to-face only education (*n* = 69), online only (*n* = 4), and blended combination of face-to-face and online (*n* = 86).

Results

The total size of the sample is 159. The study required 154 participants to generalize the results to the larger recruiter population. A comparison to establish representativeness of the population of all recruiters across the global employment marketplace was not possible because definitive characteristics of all recruiters were not available. Table 2 displays descriptive statistics of the demographic variables of the sample.

Table 2

Demographic Variables of the Sample

Demographic Variables	*N*
Gender	-
Male	78
Female	81
Age	-
18-24	6
25-34	25
35-44	30
45-54	44
55+	54
Industry sector	-
Primary	2
Secondary	25
Tertiary	80
Quaternary	43
Quinary	9

(table continues)

Highest earned credential	-
Bachelors	67
Masters	34
Doctorate	10
Non-degree professional certification	24
No degree	24
Experience with education	-
Face-to-face only	69
Online only	4
Blended face-to-face and online	86

All four assumptions of Mann-Whitney *U* testing were met in the design of the study. The non-normal distribution was the reason I chose to use non-parametric testing. Assumption one was met because the dependent variables were measured using Likert-type scales on the ordinal level, which facilitated category rankings. Assumption two was met because each independent variable had two independent groups. The demographic variables of age, industry, and highest earned credential had more than two groups in one independent variable. For those analyses, the Kruskal-Wallis *H* test, an extension of the Mann-Whitney *U* was used. Assumption three was met because observations were independent, and no participant was in more than one group. Assumption four was met because the data had a non-normal distribution (Allen & Seaman, 2007).

Some demographic groups did not consist of enough participants to ensure Mann-Whitney *U*-test statistics yielded accurate results. In the recruiter's industry groups, primary (n =2) and quinary (n = 9) were not tested due to low numbers of participants. Recruiter's experience with education in online only mode (n = 4) was also not tested. The low number of recruiters in the age group 18-24 (n = 6) was combined with the 25-34 age group (n = 25) and tested as the 18-34 age group (n = 31). In the highest earned

credentials groups, masters (n = 34) and doctorate (n = 10) were combined and tested as one group (n = 44).

RQ1

Table 3 displays demographic variables of recruiters' perceptions of postsecondary degree importance and applicants' workplace readiness. Data were collected about recruiters' age, gender, industry, highest earned credential, and experiences with education. Mann-Whitney U and Kruskal-Wallis H tests were conducted between groups in each demographic variable category to analyze recruiters' perceptions of postsecondary degree importance and applicants' workplace readiness. Each Kruskal-Wallis H test showed 3 degrees of freedom (df = 3). No statistically significant differences in perceptions were found by age, gender, or education experiences.

Significant differences were found by recruiters' highest earned credential between recruiters with professional certifications and no degree groups and the masters/doctorate group. Significance was indicated at the level $p < .05$, the null hypothesis was rejected. The confidence interval revealed a 95% chance that the true mean (central value) of participants' responses on the answer scale of 1-7 were greater than 4.0 and lower than 5.0.

Recruiters with professional certifications, or no degree, perceived that postsecondary credentials were less important for applicants than recruiters possessing masters and doctorate credentials. Significant differences were also found between industry groups. Recruiters in the secondary and tertiary industry sectors perceived

postsecondary credentials less important than the quaternary group. The results observed in the highest earned credential group and industry group seem aligned because these groups may hire personnel for jobs that do not require advanced education.

Table 3

Demographic Variables Statistics of Recruiters' Perceptions of Postsecondary Degree Importance and Applicants' Workplace Readiness

Demographic Variables	*N*	Mean Rank	*U*	*z*	*H*	*df*	*p*	*r*	95% CI
Age									
18-34	31	65.63	-	-	-	-	-		
35-44	30	76.73	-	-	-	-	-		
45-54	44	78.43	-	-	-	-	-		
55+	54	91.34	-	-	-	-	-		
-	-	-	-	-	7.45	3	.06		[4.5, 5.0]
Gender									
Male	78	76.95	-	-	-	-	-		
Female	81	82.94	-	-	-	-	-		
-	-	-	2921.00	-.84	-	-	.40	.07	[4.5, 5.0]
Industry sector									
Primary	2	-	-	-	-	-	-		
Secondary	25	61.38	-	-	-	-	-		
Tertiary	80	70.17	-	-	-	-	-		
Quaternary	43	90.19	-	-	-	-	-		
Quinary	9	-	-	-	-	-	-		
-	-	-	-	-	9.33	2	.01		[4.5, 5.0]
Highest earned credential									
Bachelors	67	79.11	-	-	-	-	-		
Masters / Doctorate	44	98.26	-	-	-	-	-		
Professional Certification	24	61.56	-	-	-	-	-		
No Degree	24	67.44	-	-	-	-	-		
-	-	-	-	-	131.45	3	.00		[4.5, 5.0]

(table continues)

Experience with education									
Face-to-face only	69	75.52	-	-	-	-	-		
Blended face to-face and online	86	79.99	-	-	-	-	-		
-	-	-	2796.00	-.85	-	-	.40	.07	[4.5, 5.0]

RQ2

Table 4 displays demographic variables statistics of recruiters' perceptions of postsecondary degree importance and applicants' leadership readiness. Data were collected about recruiters' age, gender, industry, highest earned credential, and experiences with education. Mann-Whitney *U* and Kruskal-Wallis *H* tests were conducted to analyze differences in recruiters' perceptions of postsecondary degree importance and applicants' leadership readiness. No statistically significant differences in perceptions were found by recruiters' age, industry sector, highest earned credential, or education experiences.

Significant differences were found by gender. Female recruiters, more than males, perceived that possessing postsecondary credentials was important for applicants seeking leadership roles. Significant differences were evident from the p-value associated with the Mann-Whitney *U* at $p < .05$, the null hypothesis was rejected. The confidence interval indicated a 95% chance that the true mean (central value) of participants' answers on the scale of 1-7 were greater than 4.2 and lower than 4.7. The size of the difference in the answers between females and males was found to exceed Cohen's (1988) criteria for estimating small effect size (r =.17). This indicated that the answers given by female recruiters had a small effect on the statistical results (Fritz et al., 2012).

Table 4

Demographic Variables Statistics of Recruiters' Perceptions of Postsecondary Degree Importance and Applicants' Leadership Readiness

Demographic Variables	*N*	Mean Rank	*U*	*z*	*H*	*df*	*p*	*r*	95% CI
Age									
18-34	31	68.73	-	-	-	-	-		
35-44	30	83.07	-	-	-	-	-		
45-54	44	71.24	-	-	-	-	-		
55+	54	91.91	-	-	-	-	-		
-	-	-	-	-	7.45	3	.06		[4.2, 4.7]
Gender									
Male	78	72.31	-	-	-	-	-		
Female	81	87.41	-	-	-	-	-		
-	-	-	2559.00	-2.10	-	-	.04	.17	[4.2, 4.7]
Industry sector									
Primary	2	-	-	-	-	-	-		
Secondary	25	72.68	-	-	-	-	-		
Tertiary	80	69.52	-	-	-	-	-		
Quaternary	43	84.83	-	-	-	-	-		
Quinary	9	-	-	-	-	-	-		
-	-	-	-	-	3.75	2	.15		[4.2, 4.7]
Highest earned credential									
Bachelors	67	84.65	-	-	-	-	-		
Masters / Doctorate	44	80.94	-	-	-	-	-		
Professional Certification	24	74.25	-	-	-	-	-		
No Degree	24	71.04	-	-	-	-	-		
-	-	-	-	-	2.06	3	.56		[4.2, 4.7]
Experience with education									
Face-to-face only	69	74.64	-	-	-	-	-		
Blended face to-face and online	86	80.69	-	-	-	-	-		
-	-	-	2735.50	-.85	-	-	.40	.07	[4.2, 4.7]

RQ3

Table 5 displays test statistics of recruiters' perceptions of applicants' workplace readiness attributable to postsecondary education online or face-to-face credentials. Mann-Whitney *U* tests were conducted between postsecondary online and face-to-face education credential programs. Recruiters' viewed face-to-face postsecondary bachelors, masters, and doctorate credentials more applicable to applicants' workplace readiness than online postsecondary bachelors, masters, and doctorate credentials. Significant differences were evident from the p-value associated with the Mann-Whitney *U* at $p < .05$ for every level of credential, the null hypothesis was rejected. The confidence interval indicated a 95% chance that the true mean (central value) of participants' answers on the scale of 1-7 were greater than 4.7 and lower than 5.1. The size of the difference in recruiters' answers was found to exceed Cohen's (1988) criteria for estimating medium effect sizes (r =.43), (r =.37), and (r =.37) respectively, for each level of credential (Fritz et al., 2012).

Table 5

Test Statistics of Recruiters' Perceptions of Applicants' Workplace Readiness Attributable to Postsecondary Education Online or Face-to-Face Credentials

Credential Modality	*N*	Mean Rank	*U*	*z*	*p*	*r*	95 % CI
Bachelors Workplace Readiness							
Online	159	132.02	-	-	-		
Face-to-face	159	186.98	-	-	-		
-	-	-	8270.50	-5.46	.00	.43	[4.7, 5.0]
Masters Workplace Readiness							
Online	159	136.11	-	-	-		
Face-to-face	159	182.89	-	-	-		
-	-	-	8921.00	-4.67	.00	.37	[4.8, 5.1]
Doctorate Workplace Readiness							
Online	159	136.22	-	-	-		
Face-to-face	159	182.78	-	-	-		
-	-	-	8939.50	-4.62	.00	.37	[4.7, 5.1]

RQ4

Table 6 displays test statistics of recruiters' perceptions of applicants' leadership readiness attributable to postsecondary education online or face-to-face credentials. Mann-Whitney *U* tests were conducted between postsecondary online and face-to-face academic credential programs. Recruiters viewed face-to face postsecondary bachelors, masters, and doctorate credentials more applicable to applicants' leadership readiness than online bachelors, masters, and doctorate credentials. Significant differences were evident from the p-value associated with the Mann-Whitney *U* at $p < .05$ for every level

of credential, the null hypothesis was rejected. The confidence interval indicated a 95% chance that the true mean (central value) of participants' answers on the scale of 1-7 were greater than 4.4 and lower than 4.8. The size of the difference in recruiters' answers was found to exceed Cohen's (1988) criteria for estimating medium effect sizes (r =.43), (r =.38), and (r =.38) respectively, across each level of credential (Fritz et al., 2012).

Table 6

Test Statistics of Recruiters' Perceptions of Applicants' Leadership Readiness Attributable to Postsecondary Education Online or Face-to-Face Credentials

Credential Modality	*N*	Mean Rank	*U*	*z*	*p*	*r*	95 % CI
Bachelors Leadership Readiness							
Online	159	131.90	-	-	-		
Face-to-face	159	185.93	-	-	-		
-	-	-	8279.00	-5.38	.00	.43	[4.4, 4.7]
Masters Leadership Readiness							
Online	159	135.57	-	-	-		
Face-to-face	159	183.43	-	-	-		
-	-	-	8835.00	-4.77	.00	.38	[4.5, 4.8]
Doctorate Leadership Readiness							
Online	159	135.53	-	-	-		
Face-to-face	159	183.47	-	-	-		
-	-	-	8830.00	-4.75	.00	.38	[4.5, 4.8]

RQ5

Recruiters' perceptions concerning the importance of academic rigor and its positive affect on the perceptions of applicants are illustrated in Figure 3 and Figure 4.

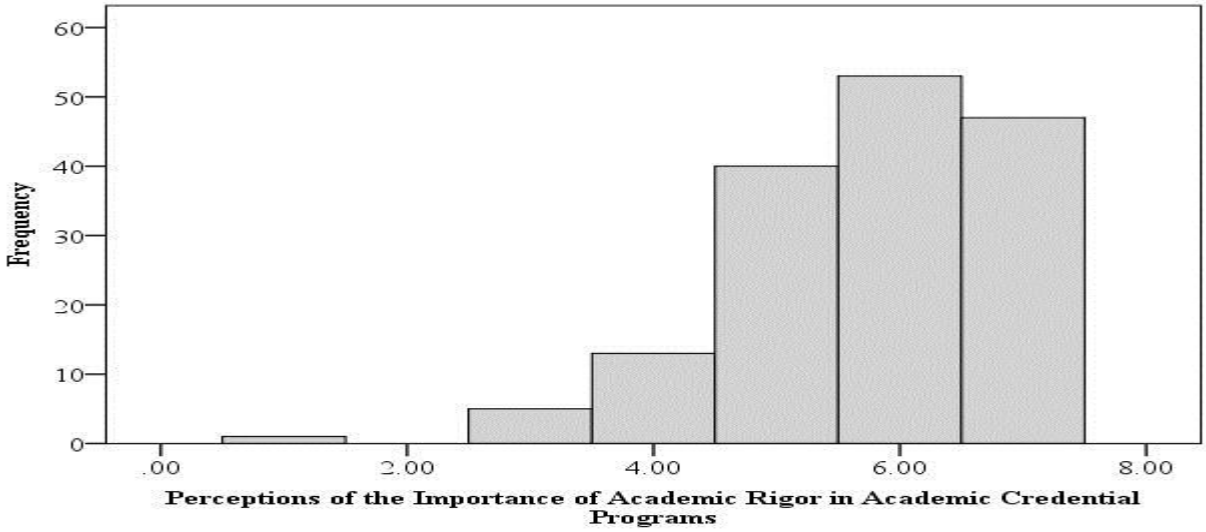


Figure 3. Perceptions of the importance of academic rigor in academic credential programs. 1 = Strongly disagree; 7 = strongly agree.

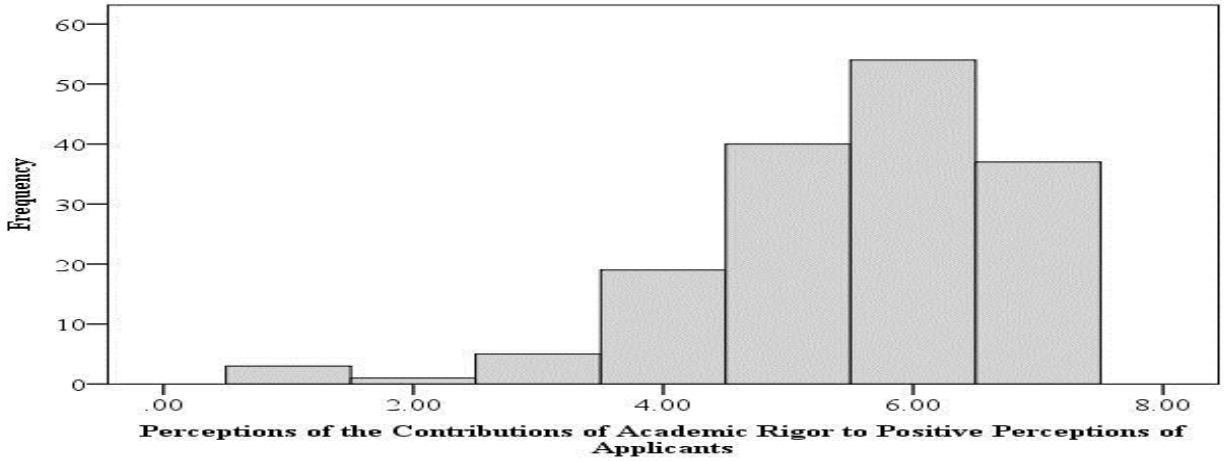


Figure 4. Perceptions of the contributions of academic rigor to positive perceptions of applicants. 1 = Strongly disagree; 7 = strongly agree.

Figure 5 illustrates recruiters' perceptions of academic rigor as ultimately a student's responsibility when attending a postsecondary credential program. 81% (n = 128) of participants' agreed with the statement above the neutral point (4). This result may demonstrate that although faculty are involved in sharing the creation of academic rigor while a student is in school, recruiters expect students to display rigorous learning on assessment testing and during job interviews to prove they are prepared to successfully transfer learning to the workplace (Draeger et al., 2013; Duncan et al., 2013; Jackson, 2015; Wagner, 2008).

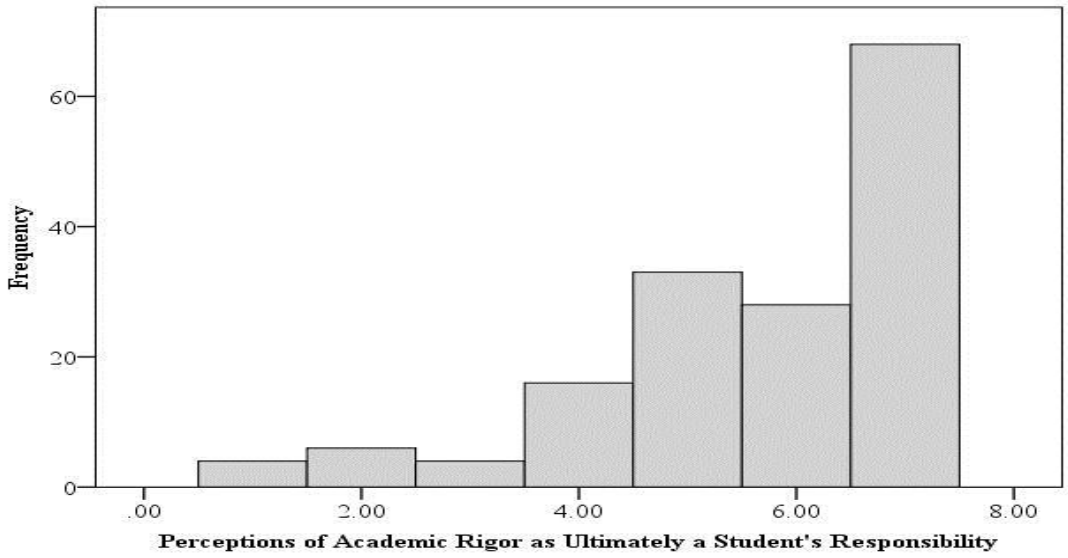


Figure 5. Perceptions of academic rigor as ultimately a student's responsibility.
1 = Strongly disagree; 7 = strongly agree.

Recruiters' perceptions of the academic rigor of postsecondary online and face-to-face academic credentials and applicants' workplace readiness are displayed in Table 7. Mann-Whitney *U* tests were conducted to analyze how differences in recruiters' perceptions of academic rigor between online and face-to-face academic credential

programs affected applicants' workplace readiness. Significant differences were evident from the p-value associated with the Mann-Whitney *U* at $p < .05$, the null hypothesis was rejected. The confidence interval indicated a 95% chance that the true mean (central value) of participants' answers on the scale of 1-7 were greater than 5.0 and lower than 5.3. The size of the difference in recruiters' answers was found to exceed Cohen's (1988) criteria for estimating small effect size ($r = .19$) on applicants' workplace readiness (Fritz et al., 2012). Recruiters' perceived the academic rigor of postsecondary face-to face academic credential programs more beneficial to applicants' workplace readiness than candidates who attended online academic credential programs.

Table 7

Test Statistics of Recruiters' Perceptions of the Academic Rigor of Postsecondary Online or Face-to-Face Academic Credentials and Applicants' Workplace Readiness

Academic Rigor Modality	*N*	Mean Rank	*U*	*z*	*p*	*r*	95 % CI
Workplace Readiness							
Online	159	142.56	-	-	-		
Face-to face	159	176.44	-	-	-		
-	-	-	9947.00	-3.38	.00	.19	[5.0, 5.3]

The IQR for recruiters' perceptions of the educational quality in online and face-to-face academic credential programs and applicants' workplace readiness was 2.0 with a median of 5.0. The score of 2.0 denotes that recruiters' responses were mostly similar. Revealing the shape of the distribution, the actual spread of the data was concentrated

between 3 and 7, indicating that the middle 50% of participants' answers were in that range.

RQ6

Recruiters' perceptions of the academic rigor of postsecondary online and face-to-face academic credentials and applicants' leadership readiness are displayed in Table 8. Mann-Whitney *U* tests were conducted to analyze how differences in recruiters' perceptions of academic rigor in online and face-to-face academic credential programs affected applicants' leadership readiness. Significant differences were evident from the p-value associated with the Mann-Whitney *U* at $p < .05$, the null hypothesis was rejected. The confidence interval indicated a 95% chance that the true mean (central value) of participants' answers on the scale of 1-7 were greater than 4.7 and lower than 5.0. The size of the difference in recruiters' answers was found to exceed Cohen's (1988) criteria for estimating small effect size (r =.27) on applicants' leadership readiness (Fritz et al., 2012). Recruiters' perceived the academic rigor of postsecondary face-to face academic credential programs more beneficial to applicants' leadership readiness than candidates who attended online academic credential programs.

Table 8

Test Statistics of Recruiters' Perceptions of the Academic Rigor of Postsecondary Online or Face-to-Face Academic Credentials and Applicants' Leadership Readiness

Academic Rigor Modality	*N*	Mean Rank	*U*	*z*	*p*	*r*	95 % CI
Leadership Readiness							
Online	159	144.01	-	-	-		
Face-to face	159	174.99	-	-	-		
-	-	-	10177.50	-3.07	.00	.17	[4.7, 5.0]

The IQR for recruiters' perceptions of the academic rigor in online and face-to-face academic credential programs and applicants' leadership readiness was 2.0 with a median of 5.0. The score of 2.0 denotes that recruiters' responses were mostly similar. Revealing the shape of the distribution, the actual spread of the data was concentrated between 3 and 7, indicating that the middle 50% of participants' answers were in that range.

RQ7

Recruiters' perceptions concerning the importance of educational quality and its positive affect on the perceptions of applicants are illustrated in Figure 6 and Figure 7.

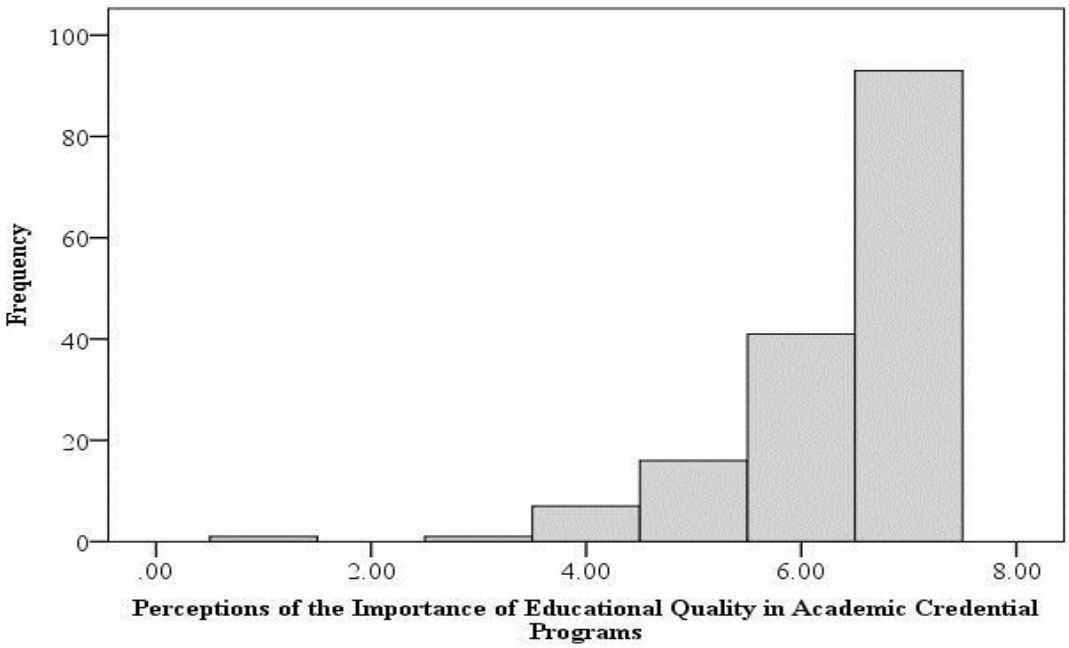


Figure 6. Perceptions of the importance of educational quality in academic credential programs. 1 = Strongly disagree; 7 = strongly agree.

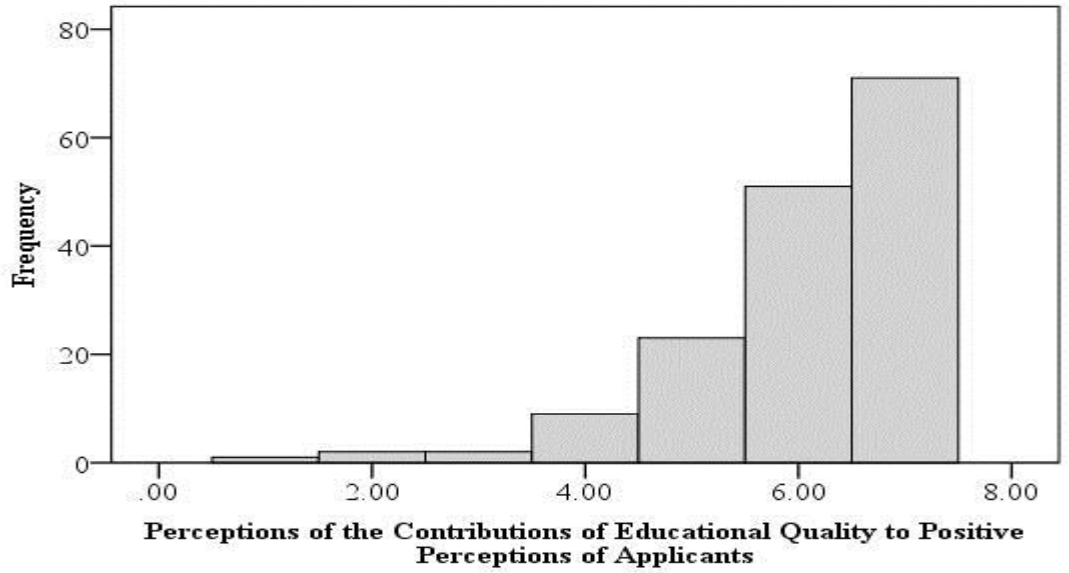


Figure 7. Perceptions of the contributions of educational quality to positive perceptions of applicants. 1 = Strongly disagree; 7 = strongly agree.

Figure 8 illustrates recruiters' perceptions about educational quality depending on the branding and reputation of the college. Some postsecondary schools have earned and retained excellent reputations and are marketed as upper-tier universities. Student academic test scores, faculty tenure, standards of rigor, and the achievements of graduates may be factors that enhance reputation. Yet the administration of educational quality by the AGB and the role of accrediting agencies to certify schools can leave no doubt that educational quality is idealistically equal across the higher learning spectrum (Association of Governing Boards of Universities and Colleges, 2017; McKenzie, 2017). Recruiters' ratings demonstrated their levels of agreement that educational quality was dependent on the branding and reputation of a college with 27% (n = 43) below the midpoint (4), 18% (n = 28) neutral, and 55% (n = 87) above the midpoint. The spread of the answers indicates that recruiters' in this study may not believe that a college's reputation alone provides graduates from highly esteemed schools with competitive advantages during an interview process. Concluding that an applicant does, or does not possess the essential skills and competencies required by recruiters and employers simply by looking at the name of the school on the college credential seems unrealistic (Krassén, 2014).

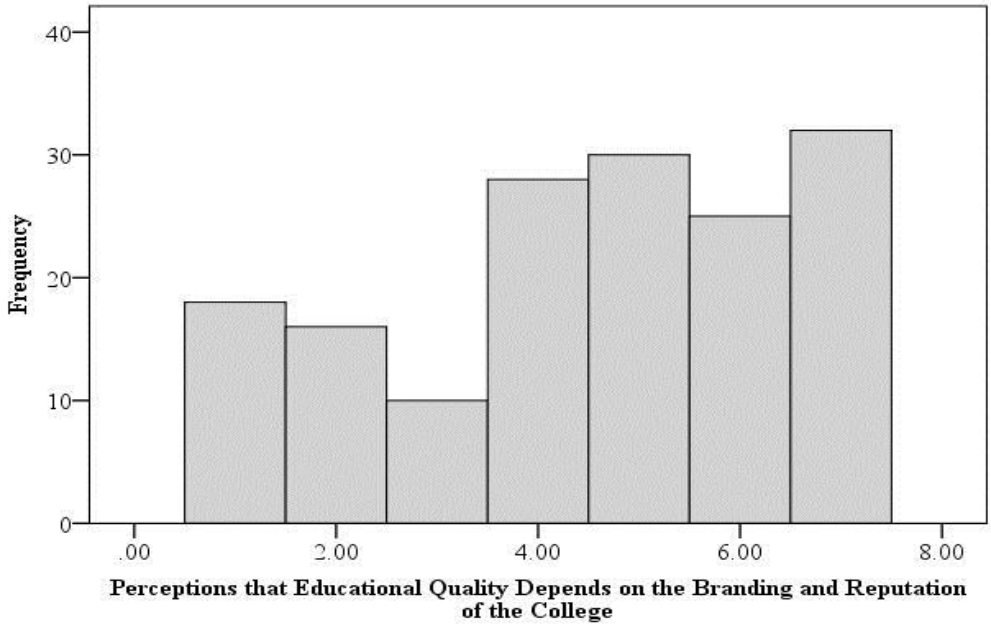


Figure 8. Perceptions that educational quality depends on the branding and reputation of the college. 1 = Strongly disagree; 7 = strongly agree.

Table 9 depicts recruiters' perceptions of the educational quality of postsecondary online and face-to-face academic credentials and applicants' workplace readiness. Mann-Whitney *U* tests were conducted to analyze how differences in recruiters' perceptions of educational quality between online and face-to-face academic credential programs affected applicants' workplace readiness.

Significant differences were evident from the p-value associated with the Mann-Whitney *U* at $p < .05$, the null hypothesis was rejected. The confidence interval indicated a 95% chance that the true mean (central value) of participants' answers on the scale of 1-7 were greater than 5.4 and lower than 5.6. The size of the difference in recruiters' answers was found to exceed Cohen's (1988) criteria for estimating medium effect size (*r*

=.31) on applicants' workplace readiness (Fritz et al., 2012). Recruiters' perceived the educational quality of postsecondary face-to face academic credential programs more beneficial to applicants' workplace readiness than applicants' who attended online academic credential programs.

Table 9

Test Statistics of Recruiters' Perceptions of the Educational Quality of Postsecondary Online or Face-to-Face Academic Credentials and Applicants' Workplace Readiness

Educational Quality Modality	*N*	Mean Rank	*U*	*z*	*p*	*r*	95 % CI
Workplace Readiness							
Online	159	146.77	-	-	-		
Face-to face	159	172.23	-	-	-		
-	-	-	10616.00	-2.55	.01	.14	[5.4, 5.6]

The IQR for recruiters' perceptions of the educational quality in online and face-to-face academic credential programs and applicants' leadership readiness was 2.0 with a median of 6.0. The score of 2.0 denotes that recruiters' responses were mostly similar. Revealing the shape of the distribution, the actual spread of the data was concentrated between 4 and 7, indicating that the middle 50% of participants' answers were in that range.

RQ8

Table 10 depicts recruiters' perceptions of the educational quality of postsecondary online and face-to-face academic credentials and applicants' leadership readiness. Mann-Whitney *U* tests were conducted to analyze how differences in

recruiters' perceptions of educational quality between online and face-to-face academic credential programs affected applicants' leadership readiness. Significant differences were evident from the p-value associated with the Mann-Whitney *U* at $p < .05$, the null hypothesis was rejected. The confidence interval indicated a 95% chance that the true mean (central value) of participants' answers on the scale of 1-7 were greater than 5.0 and lower than 5.3. The size of the difference in recruiters' answers was found to exceed Cohen's (1988) criteria for estimating small effect size (r =.17) on applicants' leadership readiness (Fritz et al., 2012). Recruiters' perceived the educational quality of postsecondary face-to face academic credential programs more beneficial to applicants' leadership readiness than applicants' who attended online academic credential programs.

Table 10

Test Statistics of Recruiters' Perceptions of the Educational Quality of Postsecondary Online or Face-to-Face Academic Credentials and Applicants' Leadership Readiness

Educational Quality Delivery Mode	*N*	Mean Rank	*U*	*z*	*p*	*r*	95 % CI
Leadership Readiness							
Online	159	65.51	-	-	-		
Face-to face	159	95.44	-	-	-		
-	-	-	1968.50	-3.00	.00	.17	[5.0, 5.3]

The IQR for recruiters' perceptions of the educational quality in online and face-to-face academic credential programs and applicants' leadership readiness was 2.0 with a median of 5.0. The score of 2.0 denotes that recruiters' responses were mostly similar. Revealing the shape of the distribution, the actual spread of the data was concentrated

between 3 and 7, indicating that the middle 50% of participants' answers were in that range.

RQ9

Table 11 illustrates test statistics of recruiters' perceptions of the trustworthiness of postsecondary online academic credentials and face-to-face academic credentials polled independently in survey questions 4.1 and 4.2 (see Appendix B). Mann-Whitney *U* tests were conducted to analyze how recruiters' perceived the trustworthiness of online academic credentials and face-to-face academic credentials. Significant differences were evident from the p-value associated with the Mann-Whitney *U* at $p < .05$, the null hypothesis was rejected. The confidence interval indicated a 95% chance that the true mean (central value) of participants' answers on the scale of 1-7 were greater than 4.9 and lower than 5.2. The size of the difference in recruiters' answers was found to exceed Cohen's (1988) criteria for estimating medium effect size ($r = .45$) for recruiters' perceptions of the trustworthiness for online academic credentials and face-to-face academic credentials (Fritz et al., 2012). Recruiters' perceived postsecondary face-to face academic credential programs more trustworthy than online academic credential programs.

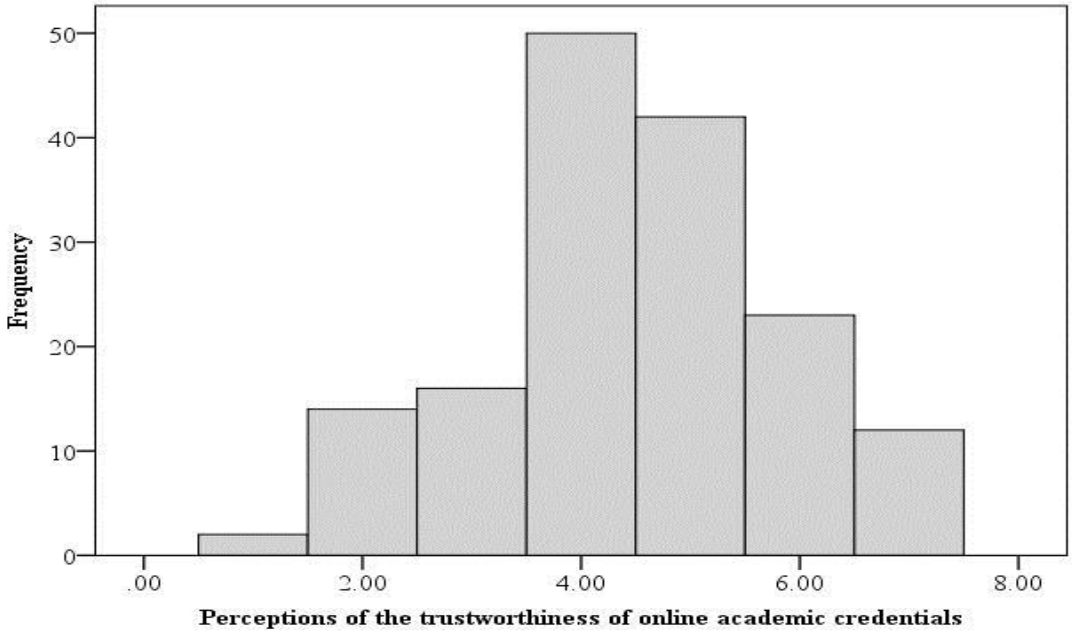
Table 11

Test Statistics of Recruiters' Perceptions of the Trustworthiness of Postsecondary Online Academic Credentials and Face-to-Face Academic Credentials

Trustworthiness Modality	*N*	Mean Rank	*U*	*z*	*p*	*r*	95 % CI
Academic Credentials							
Online	159	119.66	-	-	-		
Face-to face	159	199.34	-	-	-		
-	-	-	6306.00	-7.94	.00	0.45	[4.9, 5.2]

The IQR for recruiters' perceptions of trustworthiness for online and face-to-face academic credentials was 2.0, with a median of 5.0. The score of 2.0 denotes that recruiters' responses were mostly similar. Revealing the shape of the distribution, the actual spread of the data was concentrated between 3 and 7, indicating that the middle 50% of participants' answers were in that range.

Figure 9 depicts recruiters' perceptions of the trustworthiness of online academic credentials and face-to-face academic credentials. Participants rated the trustworthiness of each type of degree independently in survey questions 4.1 and 4.2 (see Appendix B). These two questions compelled recruiters to judge each credential in a stand-alone manner. The answers on the rating scale were: Extremely untrustworthy (1) or extremely trustworthy (7). 48% (n = 77) of the participants scored online academic credentials above the midpoint (4) on the scale, while 89% (n = 142) scored face-to-face above the midpoint (4).



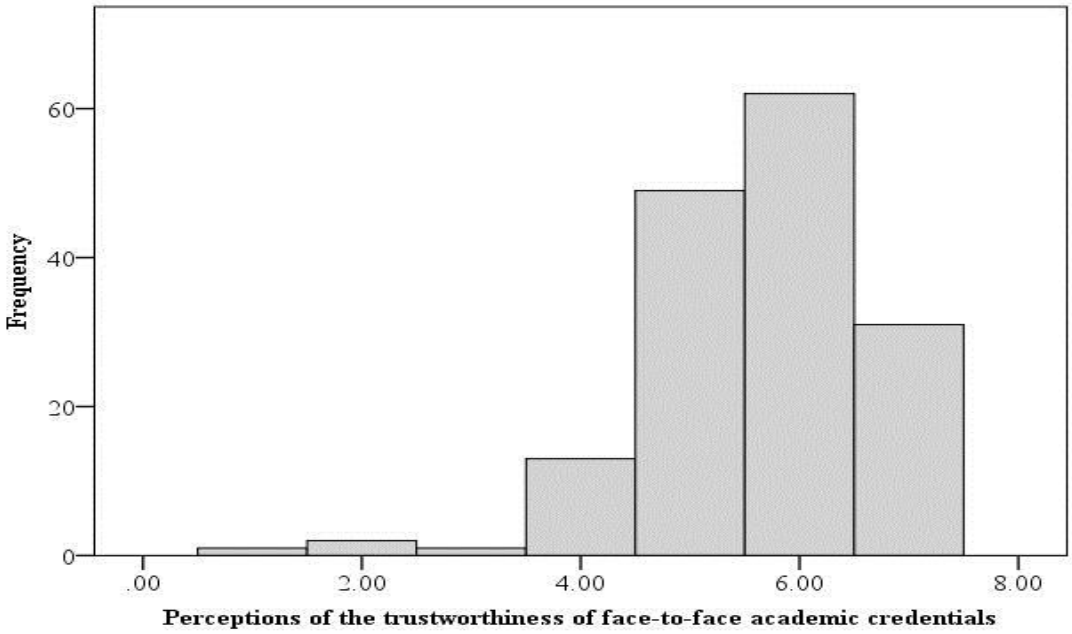


Figure 9. Perceptions of the trustworthiness of online academic credentials and face-to-face academic credentials. 1 = Extremely untrustworthy; 7 = extremely trustworthy.

Figure 10 is a visual representation of differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials; a reflection of recruiters' potential choices of applicants to advance in an interview process. A score of 1 indicated that participants considered face-to-face credentials extremely trustworthy. A score of 4 confirmed that recruiters viewed online and face-to-face academic credentials the same in trustworthiness. A score of 7 illustrated that online credentials were extremely trustworthy.

When choosing candidates to interview, recruiters may face decisions between applicants possessing online academic credentials and applicants holding face-to-face academic credentials. 40% (n = 63) of the recruiters who participated in this study indicated that trustworthiness between online and face-to-face academic credentials was the same. 54% (n = 86) perceived face-to-face academic credentials more trustworthy, while 6% (n = 9) perceived online academic credentials more trustworthy. Lack of trustworthiness for online credentials places online graduates at a tremendous disadvantage when competing with face-to-face graduates for employment opportunities. If recruiters do not trust online credentials, serious concerns arise concerning online higher education programs and their practical value to students for gaining advantages in the employment market.

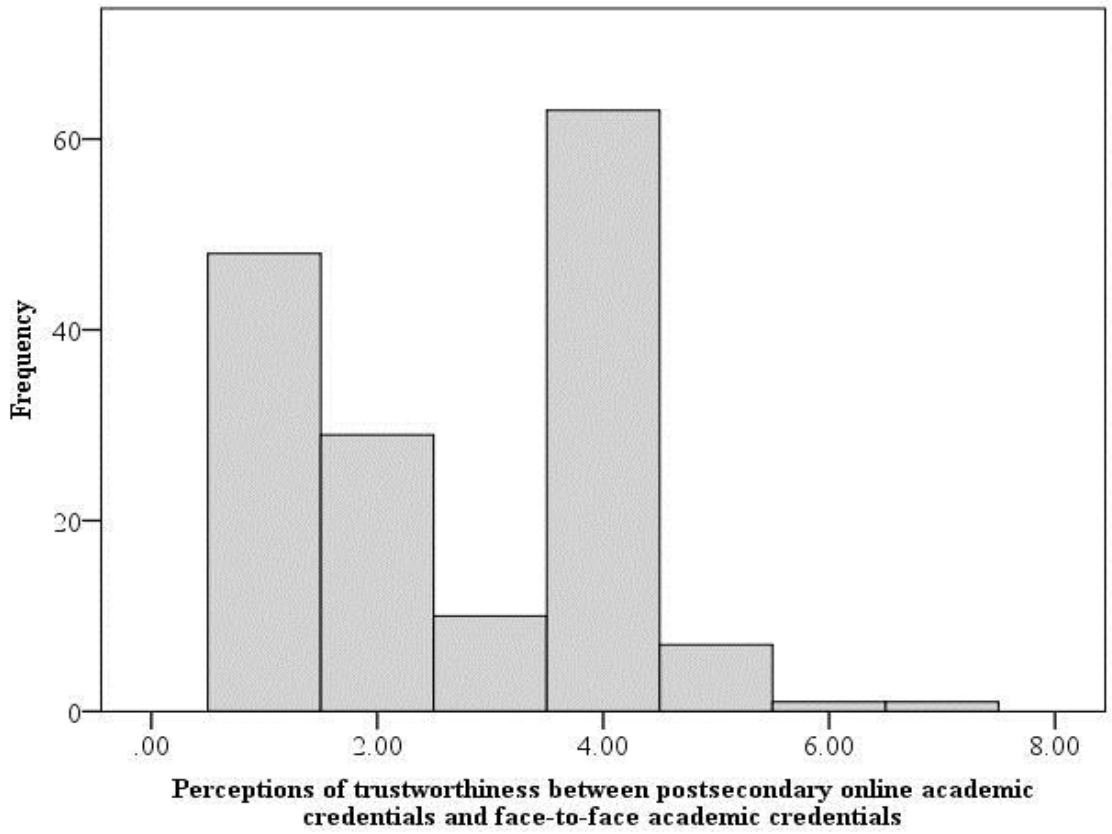


Figure 10. Perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials. *1* = Face-to-face more trustworthy; 4 = same trustworthiness; 7 = online more trustworthy.

Table 12 displays the test statistics of differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials illustrated in Figure 10. Significant differences were evident in one-sample *t*-testing with a test value of 4 (the same), with significance indicated at the level $p < .05$, the null hypothesis was rejected. The confidence interval revealed a 95% chance that the true mean (central value) of participants' responses on the scale of 1-7 were greater than -1.48 and lower than -1.03. The size of the difference in participants' answers was found to exceed Cohen's (1988) criteria for estimating large effect size (*d*

=.88) for differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials (Fritz et al., 2012).

Table 12

Test Statistics of Differences in Recruiters' Perceptions of Trustworthiness between Postsecondary Online Academic Credentials and Face-to-Face Academic Credentials

Postsecondary Academic Credential Trustworthiness	*M*	*SD*	*t*	*df*	*p*	*d*	95 % CI
Online compared to face-to-face	2.74	1.44	-11.04	158	.00	.88	[-1.48, -1.03]

The IQR for differences in recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials was 3.0 with a median of 3.0. The score of 3.0 denotes recruiters' responses were disparate, in this case, skewed toward face-to-face academic credentials. Revealing the shape of the distribution, the actual spread of the data was concentrated between 0 and 6, indicating that the middle 50% of participants' answers were in that range.

When asked independently in questions 4.1 and 4.2 on the survey (see Appendix B), 58% (n = 93) of recruiters scored face-to-face academic credentials toward extremely trustworthy (6 or 7); while 22% (*n* = 35) of recruiters scored online academic credentials toward extremely trustworthy (6 or 7). However, recruiters scored online academic credentials far less trustworthy when asked to compare trustworthiness between online academic credentials and face-to-face academic credentials. Only 1% (*n* = 2) of recruiters scored face-to-face academic credentials toward extremely trustworthy (6 or 7), while

48% (n = 77) of recruiters scored face-to-face academic credentials toward extremely trustworthy (6 or 7).

Summary

RQ1 and RQ2 were based on demographic variables. Data analysis of recruiters' answers to RQ1 indicated significant statistical differences in recruiter's highest earned credential between recruiters with professional certifications and no degrees and the masters/doctorate groups for postsecondary degree importance and applicants' workplace readiness. Significant statistical differences were also established between recruiters in the secondary and tertiary industry groups and the quaternary industry group for postsecondary college degree importance and applicants' workplace readiness. No significant statistical differences were evident by recruiters' age, gender, or experience with education. Data analysis of recruiters' answers to RQ2 revealed significant statistical differences by gender. Female recruiters viewed postsecondary college degrees more important to applicants' leadership readiness than male recruiters. No statistical differences were evident by recruiters' age, industry group, highest earned credential, or recruiters' experience with education and applicants' leadership readiness.

RQ3 and RQ4 examined recruiters' perceptions of applicants' workplace and leadership readiness attributable to postsecondary education online or face-to-face credentials. Recruiters' answers to RQ3 and RQ4 revealed significant statistical differences were apparent. Recruiters consider applicants' workplace and leadership readiness attributable to face-to-face bachelors, masters, and doctorate academic credentials superior to online bachelors, masters, and doctorate academic credentials.

RQ5 and RQ6 explored recruiters' perceptions concerning the academic rigor of postsecondary online or face-to-face academic programs associated with applicants' workplace and leadership readiness. Data analyses of recruiters' answers to RQ5 and RQ6 indicated significant statistical differences were apparent. Recruiters perceived that the academic rigor in face-to-face academic programs was superior to online academic programs as an indicator of applicants' workplace and leadership readiness.

RQ7 and RQ8 examined recruiters' perceptions concerning the educational quality of postsecondary online or face-to-face academic programs associated with applicants' workplace and leadership readiness. Data analyses of recruiters' answers to RQ7 and RQ8 indicated significant statistical differences were apparent. Recruiters perceived that the educational quality in face-to-face academic programs was superior to online academic programs as an indicator of applicants' workplace and leadership readiness.

RQ9 investigated recruiters' perceptions of trustworthiness between postsecondary online academic credentials and face-to-face academic credentials. The analysis of recruiters' answers to RQ9 revealed significant statistical differences were evident. Recruiters rated the trustworthiness of face-to-face academic credentials superior to online academic credentials.

Significant results in the p-values of the statistical testing only indicated that differences in recruiters' perceptions existed. Effect sizes provided the strength or magnitude of recruiters' perceptions of the relationship between each independent

variable and the dependent variable. The research question summary in Table 13 displays the p-values and effect sizes for each RQ described in the summary section.

Table 13

Research Question Summary

Research Questions	*p*	*r*	*df*
RQ 1	-	-	-
Recruiters' Perceptions of Postsecondary Education Degree Importance based on Demographic Variables associated with Applicants' Workplace Readiness	-	-	-
Age	.06	-	3
Gender	.40	.07	-
Industry	.01	-	2
Highest earned credential	.00	-	3
Experience with education	.40	.07	-
-	-	-	-
RQ 2	-	-	-
Recruiters' Perceptions of Postsecondary Education Degree Importance based on Demographic Variables associated with Applicants' Leadership Readiness	-	-	-
Age	.06	-	3
Gender	.04	.17	-
Industry	.15	-	2
Highest earned credential	.56	-	3
Experience with education	.40	.07	-
-	-	-	-
RQ 3			
Recruiters' Perceptions of Applicants' Workplace Readiness Attributable to Postsecondary Education Online or Face-to-Face Delivery Mode	-	-	-
Bachelors online compared to face-to-face	.00	.43	-
Masters online compared to face-to-face	.00	.37	-
Doctorate online compared to face-to-face	.00	.37	-
-	-	-	-
RQ 4			
Recruiters' Perceptions of Applicants' Leadership Readiness Attributable to Postsecondary Education Online or Face-to-Face Delivery Mode	-	-	-
Bachelors online compared to face-to-face	.00	.43	-
Masters online compared to face-to-face	.00	.38	-
Doctorate online compared to face-to-face	.00	.38	-
-	-	-	-

(table continues)

RQ 5	-	-	-
Recruiters' Perceptions Concerning the Academic Rigor of Postsecondary Online or Face-to-Face Academic Credentials associated with Applicants' Workplace Readiness	-	-	-
Online compared to face-to-face	.00	.19	-
-	-	-	-
RQ 6	-	-	-
Recruiters' Perceptions Concerning the Academic Rigor of Postsecondary Online or Face-to-Face Academic Credentials associated with Applicants' Leadership Readiness	-	-	-
Online compared to face-to-face	.00	.17	-
-	-	-	-
RQ 7	-	-	-
Recruiters' Perceptions Concerning the Educational Quality of Postsecondary Online or Face-to-Face Academic Credentials associated with Applicants' Workplace Readiness	-	-	-
Online compared to face-to-face	.01	.14	
-	-	-	-
RQ 8			
Recruiters' Perceptions Concerning the Educational Quality of Postsecondary Online or Face-to-Face Academic Credentials associated with Applicants' Leadership Readiness	-	-	-
Online compared to face-to-face	.00	.17	-
-	-	-	-
RQ 9	-	-	-
Recruiters' Perceptions of Trustworthiness between Postsecondary Online Academic Credentials and Face-to-Face Academic Credentials	-	-	-
Trustworthiness of online and face-to-face academic credentials rated independently	.00	.45	-
Trustworthiness chosen between online and face-to-face academic credentials	.00	d =.88	-

The demographic variables and the independent variables of academic rigor, and educational quality in online and face-to-face college degree programs, according to the effect size statistics, had low consequences on the dependent variables of recruiters' perceptions of applicants' workplace and leadership readiness. The relationship between the independent variable of the applicability of online or face-to-face bachelors, masters, and doctorate degrees had medium repercussions on the dependent variables of

applicants' workplace and leadership readiness. Recruiters indicated moderate preferences for face-to-face as opposed to online degrees; a possible translation: perhaps online degrees may be acceptable.

The magnitude of the effect size statistics for the trustworthiness of online, as opposed to face-to-face academic credentials, evokes distressing concerns for the online higher education industry. With a clear preference for face-to-face credentials, nearly doubled effect sizes existed between the independent ratings of recruiters' perceptions of online and face-to-face academic credential trustworthiness (r = .45); and recruiters' forced-choice between online academic credential trustworthiness and face-to-face academic credential trustworthiness *(*d = .88). Transformational learning experiences for online graduates will not secure a positive return on educational investments if recruiters' do not trust their academic credentials (McKenzie, 2017).

Online degree programs provide opportunities for lifelong learning, absent of high school graduates' socially pressured geographic and age-based expectations, allowing enrollment anytime in a student's life. The advantages that technology has facilitated for the availability, popularity, and specialization of postsecondary online education are impressive achievements for committed learners. Despite these advancements, this study revealed that recruiters consider face-to-face college degree programs more applicable to applicants' workplace and leadership readiness than online college degree programs and trusted face-to-face academic credentials more than online academic credentials.

Chapter 5 consists of interpretations of the study findings. The limitations of the study are discussed. Recommendations for further research, implications to promote the

potential for positive social change, recommendations for practice, and the conclusion are provided.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to investigate differences in recruiters' perceptions of online and face-to-face higher education credentials as indicators of applicants' workplace and leadership readiness. Quantitative methodology and a non-experimental cross-sectional comparative survey design were used in this study. Increasing numbers of adults are returning to college in pursuit of workplace opportunities and advancement, even though committing to the completion of an accredited postsecondary credential program through any higher education delivery mode is a significant time and monetary investment (Gambescia & Paolucci, 2015; Linardopoulos, 2012). Technological changes have diversified postsecondary education and expanded the availability of online and face-to-face academic programs. Applicants' goals of leveraging academic credentials toward securing gainful employment in the workplace or preparing themselves for leadership positions may be complicated by their choice of degree (Cruzvergara et al., 2018; Helyer & Lee, 2014; Holmes, 2015; Jackson, 2013; Kaupins et al., 2014; Tewari & Sharma, 2016). This study used an online survey to elicit recruiters' perceptions of postsecondary education delivery mode and applicants' workplace and leadership readiness. Recruiters' perceptions regarding the worth of academic credentials and their applicability to applicants' workplace and leadership readiness is a substantial gap in research worthy of investigation.

Cai (2013), Fogle & Elliott (2013), Gambescia & Paolucci (2015), Kaupins et al. (2014), Nguyen (2015), Tabatabaei & Gardiner (2012), and Ward & White (2015) indicated that recruiters' perceptions regarding the academic rigor and educational quality

in online education delivery mode were consistent with societal objections to online college degree programs. Increasing enrollment in online higher education programs as the impetus for improving students' pathways to employment provides good cause for filling a gap in research by conducting a current and deeper analysis of education delivery mode and credential trustworthiness. Analyzing recruiters' perceptions of college degree importance, the applicability of academic credentials, academic rigor, and educational quality in online and face-to-face academic programs as indicators of applicants' workplace and leadership readiness may help explain recruiters' views regarding the trustworthiness of postsecondary academic credentials.

Interpretation of the Findings

An examination of the demographic variables exposed statistical differences concerning the importance of postsecondary degree programs on applicants' workplace and leadership readiness. Recruiters who have professional certifications or no college degree did not perceive the attainment of a postsecondary college degree as important to applicants' workplace readiness as the group who hold masters and doctorate credentials. Statistical differences were also identified between recruiters in industry sectors. Recruiters in the secondary and tertiary industry groups did not perceive postsecondary college degrees as important to applicants' workplace readiness as the quaternary industry group. These two observations seem to align because recruiters with professional certifications and no degrees, and recruiters in the primary and tertiary industry sectors, may hire personnel for jobs that do not require formal education; therefore, college degrees are not as necessary for entry into the workplace in those industries.

Female recruiters considered applicants' possession of postsecondary education credentials more important to leadership readiness than male recruiters. Perhaps one reason for female recruiters' preference for higher education credentials from leadership applicants is because females are currently the majority (57%) of college attendees. Female college students complete their degree programs and graduate more often than males (Marcus, 2017). Female recruiters may have more stringent expectations of applicants seeking leadership positions because elevated management roles require strategic knowledge, tactical competencies, and advanced skill sets learned through education.

Recruiters in this study preferred applicants whose workplace and leadership readiness was attributed to postsecondary face-to-face bachelors, masters, and doctorate credentials as opposed to applicants who possessed online bachelors, masters, and doctorate credentials. The literature review stated that more than 71% of academic leaders believed that online and face-to-face learning outcomes were comparable (Allen et al., 2016). This study demonstrated that 40% (n = 63) of recruiters, who control the selection of job applicants, perceived that online academic credentials were as trustworthy as face-to-face credentials. Claims that online academic credential programs are beneficial to students seeking workplace advancement may be valid according to the architects of postsecondary online academic programs; however, recruiters in this study indicated a clear preference for face-to-face academic credentials. This result is evidence that the academy, its faculty, and recruiters have discordant views about the worth of credentials from online college degree programs. Students may not realize the benefits of

online education if recruiters consider the functional marketability of online academic credentials unworthy for procuring employment. The ramifications of recruiters' resistance to online degree acceptance places graduates in precarious positions after investing in online college degree programs because constant interview rejection may diminish degree-related job opportunities, lower potential earnings, and jeopardize student loan repayment (Deming et al., 2016; Fogle & Elliott, 2013; Holmes, 2015; Kaupins et al., 2014; Natale et al., 2015).

Academic rigor and educational quality were extremely important to recruiters' perceptions of all postsecondary education programs. In this study, 87% (n = 138) of recruiters perceived that academic rigor was important, and 94% (n = 149) viewed educational quality as important in college degree programs. 81% (n = 128) of respondents agreed with the statement that academically rigorous learning was ultimately a student's responsibility regardless of the college attended. However, only 55% (n = 87) of respondents agreed with the statement that educational quality was based on the branding and reputation of the school. This outcome suggests that recruiters believed academic rigor and educational quality were more important than the name branding of a school as the foundational hallmarks at the root of educational integrity and trustworthy postsecondary education experiences.

Fogle & Elliott (2013) and Kaupins et al. (2014) claimed that hiring gatekeepers viewed academic rigor and educational quality in online academic credential programs inferior to face-to-face credential programs. Their studies did not test the constructs of academic rigor or educational quality using stated definitions. Using the academic

community's definitions of academic rigor and educational quality provided in the letter to recruiters (see Appendix A), this study observed that recruiters perceived significant statistical differences in academic rigor and educational quality between face-to-face and online academic credential programs. The passage of time has not changed recruiters' perceptions of academic rigor, educational quality, and online academic credential acceptance, as projected by Tabatabaei and Gardiner (2012). Importantly, 80% (n = 127) of the recruiters in this study were above age 35, and only four recruiters completed online-only education. As a new generation of recruiters emerges, recognition of the demands of online learning could improve, and recruiters' perceptions concerning the merits and trust of online academic credentials could change. The worth of any postsecondary academic credential depends on recruiters' perceptions of its educational integrity in the employment market (Ashuri & Bar-Ilan, 2017; Bawa, 2016; Dubik & Allen, 2015; Parrish et al., 2017; Tewari & Sharma, 2016).

Any academic credential is a questionable investment if graduates struggle to generate interest from recruiters or showcase the economic, time, and learning commitments they made to improve their lives through education. Campana & Peterson (2013), Cruzvergara et al. (2018), Jackson (2015), Klebnikov (2015), Lazarus (2009), and Wagner (2008) discussed business perspectives of academic rigor and educational quality and their application to college graduates' workplace and leadership readiness. The recruiters who participated in this study viewed academic rigor as a student's ultimate responsibility and gave the importance of educational quality in postsecondary academic credential programs rankings above 90%. Those perceptions suggest that NACE

competencies, ethical organizational workplace behaviors, transfer of academic knowledge to organizational environments, and applicants' soft skills may reflect recruiters' visions of academic rigor and educational quality as necessary elements that contribute to students' workplace and leadership readiness (National Association of Colleges and Employers, 2018b).

Outcomes concerning postsecondary credential trustworthiness produced a continuing and alarming dilemma for online credential holders and potential enrollees in online postsecondary academic credential programs; online graduates could experience bias in the hiring process. 40% (n = 63) of recruiters' perceived that the trustworthiness of online academic credentials was the same as face-to-face credentials. 6% (n=9) of recruiters' perceived online academic credentials were more trustworthy, while 54% (n = 87) indicated face-to-face credentials were more trustworthy. This result demonstrates a clear preference by recruiters for applicants who possess face-to-face academic credentials at all degree levels, bachelors, masters, and doctorate; confirming studies in the literature review by Fogle & Elliott (2013), Kaupins et al. (2014), and Tabatabaei & Gardiner (2012) concerning the credibility and legitimacy of online credentials.

When asked about online degree trustworthiness independently, 22% (n = 35) of recruiters perceived online academic credentials as highly trustworthy; however, only 1% (n = 2) indicated high trustworthiness for online academic credentials when asked to directly compare trustworthiness between online academic credentials and face-to-face academic credentials. When enrolling in higher education degree programs, students would be wise to scrutinize the applicability of academic credentials to the workplace

very carefully because some postsecondary college degrees may not provide graduates with career advantages in the employment market.

Signaling theory was proposed in 1973 and connected job applicants' visible academic achievements to workplace opportunities because demographic information was unavailable in an accessible, organized fashion. College and university attendance became an eminent commodity in the pursuit of a first-rate career. Employers viewed postsecondary credentials as signs of accomplishment, concluding that job candidates' actualization of college degrees led to higher potential for successful job performance. Resumes were submitted to recruiters by mail or in-person, requiring them to physically evaluate applicants' achievements, qualifications, passion, and potential for success; then select and speak directly to promising candidates (Spence, 1973).

The applicability of signaling theory to postsecondary education has been erased by technology. As a systematic process that matches applicants to jobs based on employers' needs for hiring top-tier talent, AI systems were designed to improve recruiting efficiencies and are now common approaches to resume screening and candidate interview selection. Applicant tracking systems on the Internet bridged the asymmetrical divide between applicants' observable academic achievements and formerly non-observable social information. Today, an Internet search on applicants' names delivers personal information, arrest records, and social media activity. AI may eliminate many highly competent credentialed applicants from interview contention due to disqualifying content in online profile information or on their resumes (Celani & Singh, 2011; Karasek & Bryant, 2012; Spence, 1973).

Organizations design digital branding strategies to advertise excellent work environments and benefit offerings; thereby, communicating their appeal and reputation with hopes of attracting the best applicants. Celani and Singh (2011) acknowledged this employer branding and called for the study of signaling theory from applicants' perspectives. Branding oneself positively must always be a priority for applicants. Before applying for any position, investigating and learning as much as possible about an organization signals the applicants' job interest to recruiters. Resumes reflect personal branding and need to communicate applicants' practical value and potential worth to an employer. Postsecondary academic credentials may strengthen perceptions of an applicant if a recruiter concludes that their skills and competencies can be transferred to the workplace to benefit organizations (Cruzvergara et al., 2018; Jackson, 2016; Spence, 1973).

This study illustrated that 81% (n = 129) of participants believed earning a postsecondary academic credential was important to applicants' workplace and leadership readiness. Despite applicants' impressive educational backgrounds, the lack of correct keywords on resumes may prolong job searches. AI systems use job-related keywords as the parameters for identifying criterion to qualify job seekers for advancement into the interview stage. To satisfy the AI system, applicants can brand themselves as ideal candidates by ensuring the skills and competencies featured on their resumes match the keywords found in employers' job descriptions (Fernandez, 2019; Karasek & Bryant, 2012; Spence, 1973).

Limitations of the Study

This study yielded enough participation to ensure a valid sample-size; however, the findings are not generalizable to the larger population of all recruiters in the global employment marketplace because a definitive comparison to the sample to establish representativeness is not possible. Responses to the questions on the Higher Education and Workplace Readiness Survey (see Appendix B) were presumed honest because they represented the professional viewpoints of all participating recruiters.

Recommendations

The results of this study confirmed scholarly research documented in the literature review pertinent to recruiters' perspectives of the practicality and value of online academic credentials, which creates numerous concerns for the consumers of online higher education (Fogle & Elliott, 2013; Kaupins et al., 2014; Tabatabaei & Gardiner, 2012). Without exception, recruiters viewed applicants' workplace and leadership readiness attributable to postsecondary face-to-face academic credentials superior to online academic credentials in bachelors, masters, and doctorate degree programs. Further research could continue to explore the worth of postsecondary online academic credentials from recruiters' perspectives to benefit students' aiming to advance their careers.

Career preparation and workplace advancement describe the goals of many students who attend academic credential programs in higher education (Cruzvergara et al., 2018; Holmes, 2015). Applicants' abilities to demonstrate academic learning outcomes during job interviews, or after employment, are paramount to establishing

connections between education and the workplace. Subsequent research may seek to conduct inquiries into the reasons for the gaping divide in recruiters' opinions concerning online and face-to-face academic credential trustworthiness. Exploring reasons that recruiters lack trust in postsecondary online academic credentials provides vast areas for exploration.

Recruiters' perceptions of applicants' workplace and leadership readiness based on academic rigor and educational quality between online and face-to-face education also favored face-to-face academic credential programs. Researchers may wish to extend knowledge further by exploring recruiters' perceptions of applicants' education credentials, work experience, and skills development as indicators of career readiness, as suggested in the literature review (Cruzvergara et al., 2018; Lazarus, 2009; Wagner, 2008). Qualitative or mixed-methods designs may uncover why recruiters favored face-to-face academic credentials as opposed to online academic credentials.

This study uncovered a hidden theme that deserves attention, educational integrity; which emerged deep in the intersection of academic rigor, educational quality, and degree trustworthiness. As discussed in the literature review, the recent closures of some postsecondary higher education providers point to concerns for inadequate systems of monitoring educational integrity (Klasik & Hutt, 2019; Quintana, 2019). If higher education or accreditor standards of academic rigor or educational quality are selectively compromised by some academic administrators or faculty members, credential holders may ultimately face rejection in the employment market. This study demonstrated that accreditations awarded to online education providers, holistically, did not translate into

academic credentials recruiters believed were trustworthy indicators of applicants' workplace and leadership readiness (Celani & Singh, 2011; McKenzie, 2017; Schnee, 2008; U. S. Department of Education, 2018).

As stated in the literature review, online academic credential programs claiming to enhance workplace or leadership opportunities for attendees continue to emerge at highly recognized top-tier universities. The constant and bold promotion of postsecondary online academic credentials as trustworthy value-laden programs sanctioned and accredited by the higher education industry will continue to attract students eager for workplace advancement and life improvement. Students currently enrolled in any academic credential programs from accredited schools do not deserve to suffer any harm because of deficiencies in the educational integrity of the higher learning system (Quintana, 2019). Perhaps future studies could examine accreditation enforcement methods for ensuring educational integrity among higher education administrators and faculty to explore causes for the gap in recruiters' opinions about differences in trustworthiness between online and face-to-face academic credentials (Fogle & Elliott, 2013; Kaupins et al., 2013).

In 2018, NACE surveyed 4213 graduating seniors from the class of 2017 and 201 organizations, to compare students' and employers' perceptions of their career readiness competencies (see Figure 1). Respondents' perceptions of teamwork and digital technology proficiencies revealed complimentary results. All other NACE competencies illustrated significant gaps in perceptions between the participants. In the professionalism and work ethic competencies, students believed they were 89.4% proficient while

employers rated students 42.5% proficient. In oral and written communications, students rated their proficiency at 79.4%, while employers perceived them at 41.6%. Leadership competency proficiency ratings illustrated students at 70.5% and employers at 33.0%. As this study explained, recruiters may perceive academic rigor and educational quality in higher education as manifestations of graduates' workplace and leadership behaviors (National Association of Colleges and Employers, 2018a; Wagner, 2008).

The results of NACE's survey clearly displayed that graduates and employers have discordant views regarding workplace proficiencies. Perhaps, the most glaring indicator of the lack of association between recruiters' perceptions of education delivery mode and workplace readiness is students' and employers' perceptions of career management. As a reflection of their uncertainty, only 40.9% of students believe they are proficient in career management; however, a meager 17.3% of employers believe students are proficient enough to manage their careers. Employers do not perceive that current higher education learning outcomes provide workplace and leadership ready graduates to the employment market (National Association of Colleges and Employers, 2018a).

Academic leaders are responsible for ensuring that school accreditation results in the ethical administration and delivery of all higher education programs (U. S. Department of Education, 2017). Dedicating time and energy to ensure the academic rigor, educational quality, and curriculum design in every education delivery mode are applicable and valuable to applicants' workplace and leadership readiness, promises better return on investment to students (Association of Governing Boards of Universities

and Colleges, 2017). College graduates must be supremely confident that recruiters believe all postsecondary academic credentials are trusted predictors of career readiness.

Implications

Historically, in the United States, changes to higher education strategy and accessibility have always brought about social change. The G. I. Bill, correspondence courses, the rise of community colleges, Title VI, and Title IX legislation changed the educational landscape by breaking down social, accessibility, and funding barriers to college attendance. To the detriment of student learning outcomes, any discussion of higher education in the United States tends to become a political debate because of the policies, influence, and stronghold on education administration by the federal government. Undeniably, education is a difference-maker in people's lives. As human beings, the capability to learn is a tremendous gift that must never be taken for granted. Knowledge through education enables and strengthens people and communities (Bannier, 2006; Mintz, 2017; United States Department of Education, 2017).

Some current members of congress have suggested that free college education for everyone will transform higher education students into the smartest, most knowledgeable people in the world (Norton, 2018). In a practical sense, free college policies may risk homogenizing every participant. Differentiation of learners' skills and abilities may be lost if colleges teach identical knowledge to all attendees. Gifted individuals may be held back, while below-average students may become overwhelmed. Societal progress and innovation depend on advanced skill sets, talent, and genius; all created by leveraging differentiated learning and encouraging mindful progression. Students benefit by learning

in an educational system that promotes essential knowledge and skill development as the tenets of societal progress. Colleges can evoke pride in every student who has a degree by fully celebrating each graduate, rather than reserving the glory of college completion to visual branding when announcing athletes at sporting events. As educators, the first mission in shaping learners' attitudes is connecting the ideals of education to students' personal values by helping them understand that education builds self-worth and has the potential to improve the quality of many lives. Facilitating any type of growth depends on students taking action and transferring knowledge to the workplace to benefit communities and organizations; matters of will and opportunity.

One example of a practical solution to the college debate dilemma is in effect now, the Tennessee Promise. The program empowers high school seniors to apply for a 2-year tuition-free opportunity to attend school at a variety of Tennessee colleges. Grade expectations and community service requirements are designed to keep students engaged and on track. While some high school seniors are strongly committed to a focused college major and career path, others have not established clear and defined goals for their postsecondary educational journey. The Tennessee Promise program provides a mentor to each student and gives learners the freedom to choose a career path over two years of schooling (Tennessee Department of Human Services, 2018).

As evidenced by the proficiency survey NACE conducted in 2018, graduates' career readiness is not acceptable to employers. Ensuring college graduates are workforce ready is a worthy mission for every postsecondary institution regardless of the mode of education delivery. Connecting college purpose and learning outcomes to the workplace

give students better opportunities to qualify for jobs in their fields. All colleges have a responsibility to be accountable to students by virtue of their investment in education and for taking pride in students' successful career preparedness. This view suggests that a college education is both an economic and sustainability concern, a societal driver designed to improve graduates' workplace and leadership readiness that empowers their employment prospects and quality of life after credential completion. Economically, higher education curriculums designed to connect the learning outcomes of NACE competencies to students' career readiness could boost the number of graduates who possess marketable workplace skills and mastery of knowledge. College students pursue degrees for the purpose of acquiring jobs, and employers benefit by hiring and retaining qualified and capable workers. Education strengthens communities because teaching and learning the knowledge and skills to contribute to local progress helps forge productive partnerships in the business world and gives graduates opportunities to financially sustain their lives (Cruzvergara et al., 2018; Jackson, 2016, McPherson, 2018; National Association of Colleges and Employers, 2018a).

Societal arguments that dispute the value of online education claim online students do not possess acceptable social skills and online graduates will not succeed in the workplace or in leadership roles because their soft skills are inadequate. However, attending face-to-face colleges is not the only way to learn the soft skills needed to succeed in the workplace or the only educational experience worthy of human trust. Online students may develop soft skills organically by raising families, working with or leading teams in organizational environments, and building business relationships prior to

beginning online coursework. The choice to enroll in an online postsecondary degree program often involves deep commitments to a life-altering purpose. Online education environments do not enable students to socialize in fraternities, sororities, or other common collegiate social enterprising activities that may influence the learning experience. Online students may also point to a largely unseen fact, caused by a lack of public knowledge and experience in online programs; accountability is paramount to success. Assignments must be completed and turned in on time or failure is the outcome (Gambescia & Paolucci, 2009, 2015).

Thanks to technology, learning can occur virtually anywhere, at any time. Internet access empowers every user to a limitless treasure of knowledge, essentially free of charge, without enrollment in any type of academic degree program. Many organizations capitalize on e-learning to initiate and sustain job training. In some companies, online continuing education is required for promotions or pay increases. As a society, we have embraced the Internet as a powerful educational tool and can explore our favorite topics from a computer, tablet, or cell phone in multiple environments at our leisure. We can research medical information, complete professional training courses, plan the entire itinerary for a vacation, reserve space for an academic or business conference, and compare prices on any merchandise we wish to purchase. Each search delivers educational data and personal learning; yet, most members of society would agree that schooling is the most beneficial and enduring for students when conducted in a highly relevant and organized fashion steeped in academic rigor and educational quality. Online degree program curriculums are comprised of scholarly and peer-reviewed resources,

built with personal and professional development outcomes, and taught by qualified expert faculty in dynamic learning environments. Acknowledging those facts concerning online education, and as evidenced by this study, questions emerge regarding recruiters' unfavorable views of online academic credentials (Gambescia & Paolucci, 2015; Gregori, 2015; Meskill, 2013).

The college admissions scandal of 2019 raises suspicions of an untrustworthy environment in some face-to-face postsecondary schools (Jaschik, 2019). Wealthy individuals' ability to enter elite universities through dishonest means creates questions about the ethics and integrity associated with college admittance. This scandal clearly indicates that elite college credentials are perceived as more desirable than credentials from other schools in the United States. Ivy League colleges have long been declared the most prestigious universities to attend. An Internet search shows that online courses and degree programs from Ivy League schools are currently promoting enrollment (McKenzie, 2018).

Numerous popular, reputable, and highly recognized universities continue to create or expand online degree offerings. This seems confusing based on this research, which discovered that recruiters preferred postsecondary face-to-face academic credentials and lack trustworthiness for online academic credentials. In the interest of social opportunity and economic prosperity, organizational and academic stakeholders would serve students' life-sustaining career abilities by working together to create mutually beneficial learning curriculums to address recruiters' resistance to online credential programs. Orienting all postsecondary online and face-to-face college

programs to ensure that higher education credentials empower pathways to necessary and desirable careers support academic, organizational, and community interests (Bristow et al., 2011; McKenzie, 2017; McKenzie, 2018).

In this study, recruiters did not rank any level of postsecondary online academic credentials superior to face-to-face credentials. Perhaps the higher education industry's continual promotion of online degree programs could suddenly change recruiters' opinions and immediately authenticate online degrees as trustworthy and valuable commodities in the employment market. Online academic credentials from elite universities may become trustworthy simply because of traditionalist perceptions regarding the reputation of the elite educational sources. Graduates' efforts to support their families and pay back student loans may be jeopardized despite their demonstration of academic mastery and success in accredited postsecondary online education programs. Recruiters' and employers' resistance to the acceptance of online academic credentials hinders online credential earners as they endeavor to enter the workplace, advance to leadership roles, or change careers.

Aptitude testing in high schools was implemented to help career counselors guide students toward selecting academic curriculums and courses with a focus on personal development. Students prepared for jobs they expressed interest in and could excel at with learned proficiencies and a desire to become experts by mastering their chosen fields. The United States employment market continues to suffer from a widening skills gap. Education is mandatory in skills-based jobs because of the technical elements and knowledge required. For example, an electrician must learn about voltage, amperage,

wattage, and understand wiring diagrams, among other proficiencies, before performing the physical act of installing an electrical panel or electrical devices on the job. Licensing is usually a requirement because one mistake is life-threatening (Hill et al., 2014; Holmes, 2015; Lazarus, 2009; Wagner, 2008).

Questioning the worth of college degrees is a popular topic discussed in the media, education, and business journals. Some employment experts believe that learning a skill is more valuable to an individual's long-term success and lifetime earnings than completing postsecondary education academic credential programs. Minimizing the value of a college education because critics view skills-based jobs as better paths to employment is a substantial paradigm shift away from higher education, a scholarly human development system considered valuable in the United States for more than 375 years. Perhaps, multiple social circumstances and technological advancements in education delivery illustrate that signaling theory, in the context of education, deserves to be looked at through different lenses. Modernizing and reorganizing the academic environment to match the fast and nimble pace of business, reevaluating the elements of rigorous and quality learning, restructuring the accreditation process to match technological capabilities, and ensuring holistic educational integrity in all types of education delivery modes deserves reexamination and rapid advancement (Jackson, 2015; Hornickel, 2012; Mintz, 2017).

Successfully identifying and correcting opportunities relative to student cheating and other flaws that may exist in online education systems is essential. Perhaps from recruiters' perspectives, discomfort concerning the security and integrity of academic

assignments in online education delivery remains prominent. Changing that perception may require reviewing, standardizing, and adequately monitoring the regulatory and ethics procedures for guaranteeing student and administrative honesty in all online institutions. Technology provides remedies for correcting the lack of human interaction in online education delivery. Video conferencing between faculty and students may help eliminate the perception that online education lacks human collaboration and relational learning. The online education industry would be wise to consider adding video resources and capabilities to each and every online curriculum to strengthen bonds between students and faculty and improve opportunities to generate transformational and collaborative learning experiences (McKenzie, 2017; Mintz, 2017; Natale et al., 2015).

Developing and teaching academic curriculums as the catalysts for supplying qualified and hirable workers to organizations as a means of sustaining job growth is a societal shift that may redefine the meaning of academic learning transfer and applicants' workplace and leadership readiness. Creating multiple pathways for entering the employment market will empower students to choose a field of study, develop applicable skill sets, and pursue rewarding careers. Online education delivery can become a very powerful method for teaching the foundational elements of skills-based careers. This effort may help close the skills gap by incorporating varying education delivery modes into the apprenticeship training for each skill position to empower workers' learning transfer on the job. Optimizing online education delivery does not require eliminating face-to-face education because each delivery mode serves students' learning styles based

on the human traits of intrinsic and extrinsic motivation and differentiated learning models (Brandau-Brown, 2013; Hartnett, 2012; Tichavsky et al., 2015).

Conclusion

Throughout human history, the opportunity to acquire knowledge has empowered individuals to strive to do their very best in life. No individual, institution, or government has a monopoly on knowledge. Humanity's passion for achievement, community outreach, collaboration, and cooperation has built enduring civilizations. Many historical events authenticate the premise that when learning is constantly and readily available, people have the potential to connect through principled values and develop into understanding and supportive communities. Perhaps the only way to stop online learning is to pass laws that make online learning illegal or deconstruct the Internet.

In this study, recruiters perceived the academic rigor, educational quality, and applicability to applicants' workplace and leadership readiness in face-to-face credential programs superior to online credential programs. Recruiters' perceptions concerning the trustworthiness between face-to-face and online academic credentials favored face-to-face credentials; creating confusion about the value and worth of relentlessly promoted postsecondary online academic credentials. Recruiters' lack of trustworthiness for online postsecondary academic credentials was evident in this study. All higher learning accrediting agencies now face challenges for ensuring that the educational integrity, merits, and benefits of all postsecondary online academic credential programs are irrefutable to the gatekeepers of the workplace. Additionally, eliminating the gaps in graduates' career readiness competencies is an urgent priority. Assuring that all

postsecondary online and face-to-face academic credential programs empower graduates' workplace and leadership readiness allows academic and organizational stakeholders to unite around common goals that are beneficial to all of society.

A critical juncture has again emerged in the realm of postsecondary education and demands swift actions to incite and inspire social change. Academic, financial risk, technological mobility, and societal pressures continue to facilitate the increasing popularity of higher education online academic credential programs. Recruiting professionals, organizational, and academic leaders would foster graduate employability by working together to find ways to resolve the obvious stigma associated with the full and complete acceptance of online academic credentials. Every academic credential program across higher education deserves to be assembled with abundant student learning outcomes that focus on career readiness skills and job competencies; resulting in workplace and leadership ready applicants who benefit the employment market. Failure to revere and champion the virtues of online learning intensifies financial risk for online credential earners, manifesting in educational injustice and the continual escalation of social unsustainability in a changing world.

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Appendix A: Letter to Recruiters

Thank you for your voluntary participation in this research study. The time you dedicate to completing this survey gives you a voice regarding recruiters' perceptions of education online or face-to-face delivery mode on applicants' workplace and leadership readiness. Please express your professional recruitment viewpoints when completing this survey; your participation will not result in negative ramifications of any kind. Your answers are confidential, will not be shared with anyone, and used solely for analysis in this study. The aggregate results of the data will be published in a dissertation and available for review on the publisher's website. Please direct any questions you may have to Alan Faingold at alanfaingold@WaldenU.edu.

You play a vital and decisive role as the gatekeepers on the boundary between education and career opportunity. Understanding your perceptions of online or face-to-face education delivery modes, academic credentials, and your valuation of education and work experience may help career-minded students who must consider the costs and benefits of pursuing a college degree. *Academic rigor*: a set of scholarly standards and expectations common to the academic community, and *Educational quality*: the vigor and energy education administrators and faculty devote toward fulfilling the mission of higher education (the educational experience) are pillars of postsecondary education. Your answers to this survey will broaden professional viewpoints regarding postsecondary academic credentials as signals of applicants' workplace and leadership readiness. Your perspectives are extremely valuable to students, parents, educators, fellow recruiters, and organizational leaders; the stakeholders in the employment market.

Appendix B: Higher Education and Workplace Readiness Survey

Demographic Questions

Gender: Male (M) or Female (F)

Age:

What is the primary industry for which you recruit? (Appendix C)

Highest earned education credential: Bachelor's degree, Master's degree, Doctorate degree, professional certification, no college degree.

Experience with education: Face-to-face, online, face-to-face and online.

Section 1 – Perceptions of postsecondary education online and face-to-face delivery mode

Q1.1 - How important is a college degree as an indicator of applicants' ***workplace readiness***?

1	2	3	4	5	6	7

Not important at all Very important

Q1.2- How important is a college degree as an indicator of applicants' ***leadership readiness***?

1	2	3	4	5	6	7

Not important at all Very important

Q1.3- How do you view the effectiveness of online college bachelor's degree programs in ***preparing applicants for the workplace***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.4- How do you view the effectiveness of online college master's degree programs in ***preparing applicants for the workplace***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.5- How do you view the effectiveness of online college doctoral degree programs in ***preparing applicants for the workplace***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.6- How do you view the effectiveness of online college bachelor's degree programs in ***establishing applicants' leadership readiness***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.7- How do you view the effectiveness of online college master's degree programs in ***establishing applicants' leadership readiness***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.8- How do you view the effectiveness of online college doctoral degree programs in ***establishing applicants' leadership readiness***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.9- How do you view the effectiveness of face-to-face college bachelor's degree programs in ***preparing applicants for the workplace***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.10- How do you view the effectiveness of face-to-face college master's degree programs in ***preparing applicants for the workplace***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.11- How do you view the effectiveness of face-to-face college doctoral degree programs in ***preparing applicants for the workplace***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.12- How do you view the effectiveness of face-to-face college bachelor's degree programs in ***establishing applicants' leadership readiness***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.13- How do you view the effectiveness of face-to-face college master's degree programs in ***establishing applicants' leadership readiness***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.14- How do you view the effectiveness of face-to-face college doctoral degree programs in ***establishing applicants' leadership readiness***?

1	2	3	4	5	6	7

Extremely ineffective Extremely effective

Q1.15- In your professional opinion, how do you appraise the worth of education when assessing applicants' ***workplace readiness***?

1	2	3	4	5	6	7

Extremely low worth Extremely high worth

Q1.16- In your professional opinion, how do you appraise the worth of education when assessing applicants' ***leadership readiness***?

1	2	3	4	5	6	7

Extremely low worth Extremely high worth

<u>Section 2- Perceptions of academic rigor of college degree programs</u>

Please indicate your professional level of agreement with the following statements on a scale of 1 "strongly disagree" to 7 "strongly agree."

Q2.1- Academic rigor is an important part of college degree programs.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q2.2- The academic rigor of college degree programs contributes to positive perception of applicants.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q2.3- The academic rigor of online college degree programs contributes to applicants' ***workplace readiness***.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q2.4- The academic rigor of face-to-face college degree programs contributes to applicants' ***workplace readiness***.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q2.5- The academic rigor of online college degree programs contributes to applicants' ***leadership readiness***.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q2.6- The academic rigor of face-to-face college degree programs contributes to applicants' ***leadership readiness***.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q2.7- Academically rigorous learning is ultimately a student's responsibility regardless of their choice of college degree program.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

<u>Section 3- Perceptions of educational quality of college degree programs</u>

Q3.1- Educational quality is an important part of college degree programs.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q3.2- The educational quality of college degree programs contributes to positive perception of applicants.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q3.3- The educational quality of online college degree programs contributes to applicants' ***workplace readiness***.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q3.4- The educational quality of face-to-face college degree programs contributes to applicants' ***workplace readiness***.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q3.5- The educational quality of online college degree programs contributes to applicants' ***leadership readiness***.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q3.6- The educational quality of face-to-face college degree programs contributes to applicants' ***leadership readiness***.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

Q3.7- Educational quality is a direct result of the name recognition, branding, and reputation of the school.

1	2	3	4	5	6	7

Strongly disagree Strongly agree

<u>Section 4 – Perceptions of postsecondary education trustworthiness</u>

Q4.1- How do you regard the trustworthiness of online college degrees?

1	2	3	4	5	6	7

Extremely untrustworthy Extremely trustworthy

Q4.2- How do you regard the trustworthiness of face-to-face college degrees?

1	2	3	4	5	6	7

Extremely untrustworthy Extremely trustworthy

Q4.3- How do you regard the trustworthiness of non-degree professional certifications?

1	2	3	4	5	6	7

Extremely untrustworthy Extremely trustworthy

Q4.4- When considering the trustworthiness of applicants' credentials, do you believe online college degrees or non-degree professional certifications are more trustworthy?

1	2	3	4	5	6	7

Online degrees No difference Certification holders

Q4.5- When considering the trustworthiness of applicants' credentials, do you believe face-to-face college degrees or non-degree professional certifications are more trustworthy?

1	2	3	4	5	6	7

Face-to-face degrees No difference Certification holders

Q4.6- When considering the trustworthiness of applicants' credentials, do you believe online college degrees or face-to-face college degrees are more trustworthy?

1	2	3	4	5	6	7

Face-to-face No difference Online

Appendix C: NAICS Code List

Code	Industry Title
11	Agriculture, Forestry, Fishing and Hunting
21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information
52	Finance and Insurance
53	Real Estate Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative, Support, and Waste Management Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Food Services
81	Other Services (except Public Administration)
92	Public Administration