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Work Readiness among Graduate Students

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WORK READINESS AMONG GRADUATE STUDENTS

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This dissertation is dedicated to my parents, J.W.K Akotto and Bernice Bassah, who through their hard work and their value for education has kept the flame burning this far. To them I owe eternal gratitude for their sacrifices, trust and unfading love. Mom, my first teacher, has been relentless in keeping up with me. My dad's appreciation of academic achievement and guaranteed financial support gave me the motivation to never quit in attaining the highest apogee of education. I owe them immeasurable gratitude. This dissertation, mom and Dad, is to you.

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ABSTRACT

This study explored work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States. Work readiness, although a relatively new construct, is defined as the level to which graduate students are perceived as possessing attitudes and attributes that enable them to be prepared for success in the workforce. Graduate degree-seeking students in universities and colleges are projected to surpass bachelor seeking students in the future. Hiring of graduate degree holders by organizations, however, play a major role in recruitment of new employees. Increasingly, organizations report that recent graduate program completers are insufficiently prepared for the 21st century workplace. University administrators however allude to the contrary. Graduate program completers going through this transition from classroom to the workplace have been scarcely studied in terms of their perceived work readiness. This study therefore studied their perceived work readiness as well as influencing personal and academic characteristics. Data from 967 graduate program completers were used in the study. This data were collected from the Graduating Student Survey of a Research University (RU/VH) in the Southeastern Region of the United States. The data measured perceived work readiness of graduate program completers for each graduating semester in 2014. The selected predictors in this study included Having an Internship, Having an Assistantship, Publication Status and Participation in Conferences, Access to faculty expertise, Access to facilities, Satisfaction with career center. The predictor variables were explored to determine their significance in predicting work readiness perceptions of the graduate program completers. The results showed that graduate program completers who had an internship and an assistantship were significantly different from those who did not in terms of their perceived work

readiness. In addition having access to faculty expertise, satisfaction with career center and submitting one or more journal articles for publication explained 21.6% of the variance in perceived work readiness of the graduate program completers. Other findings with discussion of the results and recommendations for future research and practice were discussed.

CHAPTER 1: INTRODUCTION

Statement of the Problem

The goal of a quality education in higher education is to sharpen the skills of students, unleash them to be seekers of new knowledge and to ultimately gain employment or use these skills to solve problems. Every nation boasts of its human resource as the backbone for the economy. Even so, a skilled and educated workforce that is ready to solve future problems is celebrated. Although education in particular does not have a single purpose, education prepares students to be good citizens, skilled workforce, culturally literate, critical thinkers and to compete in the global marketplace (Jones, 2012).

The world of work in the 21st century has seen major changes including the very concept of career. Not only are organizations competing in downsizing or outsourcing, they are making strategic choices in harnessing their human capital. Selection and hiring decisions of organizations are being made based on the credentials and competencies that are predictive of the potential employee's job success. These changes call for universities to not only graduate high-quality work-ready students, but prepare students whose abilities surpass technical classroom-based knowledge (Freudenberg, Brimble, & Cameron, 2008).While there is a smooth transition from secondary education to postsecondary education in terms of the skills and the standards to be met, the pathway from college or graduate school to successful job performance is not clearly defined, measured or evaluated (Wendler et al, 2012). There is a proliferation of credentials, batteries of tests, plethora of certifications and networking that a graduate must navigate in order to secure a well-paying job within his or her field of study. Universities and colleges are also

offering a wide range of courses and programs, some promising job opportunities after graduating.

President Obama has indicated that educational institutions will have to show proof of students' post-college success in the workplace to receive federal funding (US Department of Education, 2011). Not only is there a gap between the student's education and their careers, but both teachers and students find it challenging to translate academic achievement into work readiness and career success (Grummon, 1997). In addition, the standards and benchmarks for work readiness skills that are necessary for success in the workplace are scant and misunderstood at best (ACT, 2013).

On the other hand, adult learning students continue to flood universities usually at the graduate level with different career-related needs. These career needs until recently have been found to be different from those of traditional age students. Most of these adult students have been exposed to the world of work. Even though these adult students have sought assistance with their career planning prior to entering the workforce, they are returning to the classroom for career-related needs. Researchers and educators have called for the need to target and tailor effective work-integrated learning (WIL) and career counseling services to this category of students. In the current dispensation requiring individuals to make meaning of their dynamic career climate without any input from organizations (Young & Collin, 2004); there is little empirical research to study how these students are being influenced as well as their perceptions of their work readiness.

Rationale for the study

The field of Human Resource Development (HRD) focuses mainly on Organizational Development (OD), Training and Development (TD) and Career Development (CD). CD is

however getting less attention and research in the literature (Swanson & Holton, 2001). A probable reason could be that careers are becoming boundary less (Arthur 1994) or protean (Hall 1976) coupled with high unemployment rates, job losses and fading away of employer and employee loyalty. While the term 'career' is fading away, because employers can no longer guarantee a traditional hierarchical organizational career; employees do not see themselves as being tied to a career with one organization or sector. It will be naïve to think or expect job security for loyalty in today's workplace. A more favorable trend is employees taking ownership of their career or work, being values-driven and self-directed as and when opportunities present themselves. It is therefore not uncommon in the literature to see work readiness being used interchangeably with career readiness. While this debate is outside the scope of this study, these realities call for reintegrating and studying of career development in the HRD curriculum. The relevance of studying career development among adult population on university campuses who are going through career adaptations will enable the field of HRD to connect students' development needs to organizational expectations.

Career Development is important because the global competition among organizations demands recruitment of well-aligned and well-prepared employees to meet organizational goals. The shift from a paradigm where organizations contribute to and manage the careers of individuals' to a *new normal* where individuals construct their own careers has seen little research. Even though organizations are gradually washing their hands off how individuals manage their careers, individuals' interests and skills are an integral component of the social capital of organizations. Ignoring or paying lip service to career development will be detrimental to an organization's turn-over and performance in the long run. Organizations stand to benefit in knowing the driving forces behind their employees seeking graduate-level degrees as well as

how these potential employees view themselves as ready for the jobs they do or will do in the future.

Secondly, many adult learning students work while pursuing graduate level degrees. Though there have been suggestions that adult learning students pursue graduate level programs for career-related reasons, there is little empirical study to confirm these hypotheses or identify the missing links. Previous CD researchers tend to focus on either entering freshmen, graduating seniors or just the undergraduate population. It is evident in the literature that adult students differ significantly from traditional age students (Gianakos, 1996).

Furthermore, the US Department of Education, National Center for Education Statistics, projected an increase of 20% in enrollment of students aged 25 to 34 years in degree granting institutions between 2010 and 2021. For students who are 35 years and above, an increase of 25% is projected; compared to an increase of 10% for students aged 18 to 24 years. In addition, enrollment for post-baccalaureate students is projected to increase by 19% as compared to 14% for undergraduate students for the same 2010 to 2021 period (Hussar, W.J., and Bailey, T.M. (2011). These projections attest to refocusing attention and research on students above age 24. This age group of students enrolls for the master's degree only or pursues doctorate degrees.

The missing links in the career development process have clouded the workforce transition of graduating from college to work; and then returning to school and going back to work with or without changing careers – a situation described as unidentified career pathways (Commission on Pathways Through Graduate School and Into Careers, 2012). There is extensive literature on reasons for a change of job as well as documented barriers among specified demographic populations such as women and some ethnic minority groups. The perceptions of

work readiness among adult students caught up in the current paradigm shift of career development are yet to get the needed attention and research.

A lot of studies on career development tend to focus on career decision-making and the self-efficacy of individuals making that decision usually in high schools and colleges. Career development, however, does not end in getting a job after graduating from college. Career development being a lifelong process, extends to adult workers going back to the classroom. Little is known about how working and non-working adult students are being influenced beyond making a career choice, getting a job or going back for graduate studies. Interestingly, however, researchers, policy makers and employers continue to advocate for universities to tailor career counseling or career education to the increasing adult population emerging in universities (Briscoe, 2002). It is important to explore the perceptions associated with this population in order for curriculum and instruction policy makers, career services and the field of HRD to design and provide the needed assistance and guidance to this growing population in and out of graduate level classrooms.

Lastly, the hiring of graduates in the workforce plays a major role in recruitment of new employees. In addition to the reputation of a university and the ranking of the department from which a graduate student completes the degree, personal accomplishments play a greater role in the hiring process of recent graduates (Stenstrom, Curtis, & Iyer, 2013). In this process, many decisions are made based on the knowledge, skills, abilities and other characteristics (KSAOs) that human resource personnel identify as potentials for success on the job. Some of these KSAOs include having an internship (Figiel, 2013); having an assistantship (Ethington & Pisani, 1993); Career Orientation, and Publications (Stenstrom, Curtis, & Iyer, 2013).

Recently, calls have been made for graduates to have a wide range of generic attributes and competencies (Hager & Holland, 2006). These KSAOs and attributes, at best, have only been proposed, and thus lack rigorous testing. What is common in the literature is that these KSAOs and attributes, even though they have been labelled differently, are being used more often than academic performance to recruit graduates. The graduates possessing these attributes are thus labelled as work-ready (ACNielsen Research Services, 2000). Even though 'Work readiness,' being a relatively new construct and lacking consensus on the definition, the set of attributes or the skills that it comprises; it has been shown in the literature as a criterion for determining success of graduates in the workforce (Casner-Lotto & Barrington, 2006). Work readiness is, therefore, viewed as the level at which graduates are perceived as possessing attitudes and attributes that will enable them to be prepared for success in the workforce (Caballero & Walker, 2010). Since work readiness is new in the training and workforce development literature, it is justifiable to explore this construct among the population that it concerns – graduate students.

Purpose of the study

The available data and research findings thus point to focusing research, and preparing graduate students ready for jobs. Though these students at the graduate level differ from traditional age students in terms of their career needs, very little research has been done to find out about the perceptions of work readiness among these students. Therefore the purpose of this study was to investigate work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States.

Dependent Variable

The dependent variable in this study was perceived work readiness of graduate program completers as measured by six Likert scale items in the Graduating Student Survey at a Research University (RU/VH) in the Southeastern Region of the United States.

Objectives

The following were the guiding objectives throughout the study:

1. To describe graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States on the following personal and academic characteristics:

    a) Whether or not US citizen

    b) Most likely activity after graduation (Self-reported)

    c) Whether or not the student had an Internship

    d) Whether or not the student had an Assistantship

    e) Publication Status

    f) Participation in Conferences

    g) Graduate level (MS or PhD)

    h) Whether thesis or non-thesis student (MS only)

2. To determine the perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States as measured by responses to selected items on a Graduating Student Survey.

3. To determine if a relationship exists between perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States and the following personal and academic characteristics:

a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Whether thesis or non-thesis student (MS only)

4. To determine the perceptions held by graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States regarding the University's performance in preparing them for the workforce as measured by responses to selected items on a graduating student survey.

5. To determine if a model exists explaining a significant portion of the variance in the perceived work readiness of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States from the following personal and academic characteristics:

a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Access to faculty expertise

i) Access to facilities

j) Satisfaction with career center

Operational Definitions

This study used terms that are familiar in the Career Development as well as the Training and Development literature; however, the following terms were operationally defined in reference to this study.

Career Development has been defined by Simonsen (1997) as "an ongoing process of planning and directed action toward personal work and life goals. Development means growth, continuous acquisition and application of one's skills. Career development is the outcome of the individual's career planning and the organization's provision of support and opportunities, ideally a collaborative process" (p. 6-7).

Citizenship was defined in the study as identifying oneself as a United States citizen for employment purposes or an international student.

Career Orientation was defined in this study as the expected world of work that a student is leaning towards, whether in higher education academic job or in the industries or companies outside higher education (non-academic jobs). It is measured in this survey as the most likely activity upon graduation.

Having an Internship was used in the study to describe applying for and obtaining a temporary paid or unpaid position in an organization outside the university to learn hands-on-skills that are taught in the classroom.

Having an Assistantship was defined in this study as having a paid academic position as a graduate student to teach or conduct research on part-time basis within the university.

Publication Status was defined as the current state of graduate student in terms of submitting, publishing an article, book or book chapter in a journal.

Participation in Conferences was also defined in this study as whether or not a graduate student has travelled to present a paper at a conference during their course of study.

Being a Thesis or Dissertation student was defined in this study as whether the graduate student had conducted research and reported the findings in a research report.

Career Barriers was defined as "events or conditions, either within the person or in his or her environment that make career progress difficult (Swanson & Woitke, 1997)."

Work readiness was defined as the extent to which graduates are perceived to possess the attributes that make them prepared or ready for success in the work environment (Caballero & Walker, 2010).

Graduate program completers was defined as any student who has undertaken a graduate program of study and has completed it.

Significance of the study

The Council of Graduate Schools in the US has indicated that graduate degrees are not only highly valuable but are in high demand by employers. The Bureau of Labor Statistics (2012) for instance projected an increase of 22% and 20% for jobs requiring master's degree and doctorate degree respectively by 2020. The Council of Graduate Schools however mourns the lack of transparency of career pathways which has the potential of impacting the labor force in light of the estimates and projections for the future of the US economy (Council of Graduate Schools, 2009). It is important for graduate students exiting universities to be prepared and ready for the new and replacement job demands of the future.

Competing countries and regions of the world are strategizing by investing and researching graduate education in order to develop their workforce in readiness for jobs that are being anticipated in the future. For instance, the Council of the European Union is promoting "the development of a career resilient work force dedicated to the idea of continuous learning and reinvention" (Bimrose & Hearne, 2012). All the major stakeholders (Students, University Administrators, Counselors and Employers, and Parents) have reiterated the need for graduate students to have access to simple and useful workforce information prior to starting their programs and while they are in the program.

Even though it is an open secret that the career development of an individual is no longer linear but multifaceted and largely dependent on the individual, graduate students more often than not look for and expect some input from career counselors, mentors/role models, departments and future employers as they prepare to graduate.

This study therefore investigated the perceptions of workforce readiness of graduate program completers as a necessary step in the discussion of graduates transitioning to the workplace. This will be contributing to the progress towards developing more a resilient and prepared workforce to meet the demands of the US economy in the future. On a daily basis, graduate students are interacting with systems, curricula, and organizational criteria that have an impact on their career plans, needs and readiness for the workforce, often times unexplored.

CHAPTER 2: LITERATURE REVIEW

A review of related literature was conducted to draw on the broader discussions and studies on the topic. With the purpose of this study exploring the perceptions among graduate program completers, both theoretical and research findings on work readiness in the higher educational setting was examined.

Historical Roles of University

Universities and colleges have the task of enhancing analytical skills of students and preparing them to solve problems in the workplace (O'Banion, 2011). This task, according to Castells (2001), is one of the four key functions of universities. The other functions of universities include the following: universities serve as the ideological apparatus that takes on the different ideological divides in the society. In addition, universities function as the vehicle for recruiting and socializing dominant elites. Also, universities are the locations for the generation of knowledge. For the lay person, this last function appears to be their most valuable function. This latter point of view is consistent with previous studies on the objectives of university education contained in the O'Neil assessment (O'Neil, 1997). This assessment came out of a round table of University lecturers, business managers and graduate students. In this assessment, the general consensus reached was that the university was a space to acquire general skills of thinking. This view was ranked highest consistently across all the various groups present at this round table. These results do emphasize the need to first of all educate students.

Consequently, universities and colleges take pride when their alumni engage in socially responsible endeavors at the local, state and national levels with the knowledge gained. Within the walls of educational institutions, students' education is often guided by different philosophies

of the founding fathers, state funding policies, as well as the governing bodies that regulate how students interact with the whole process of knowledge acquisition and life transformation. These policies and demands (such as budget cuts) from stakeholders sometimes contradict the roles universities and colleges are expected to play. From the moment a student enters into an institution of higher education, many levels of interaction take place between the student and several institutions within the university. The student interacts with administration, faculty and student groups; all planned events and developmental experiences which are geared towards the total education of the students. Even though knowledge is exchanged and students develop analytical and problem solving skills, they look forward to graduating and using the acquired knowledge to work and to make a difference in their communities. This task of universities and colleges is however successful when there are higher graduation rates and students gain employment after graduation in their chosen fields of work. In the words of Moxley, Najor-Durack, and Dumbrigue (2001) "students come into post-secondary and higher education perhaps more with vocation, profession and career in mind than academic matters" (p. 123).

As a result of this symbiotic relation between universities and colleges and the society, more is being demanded from universities to not only respond but adapt to the needs of other social and economic institutions (Brennan, King and Lebeau, 2004). For example, in recent years, institutions of higher education in the United States are being called upon to graduate students that can compete on the global stage with their peers in other high performing nations (Kirwan, Cantor, Cordova and Broad, 2005). In addition, these institutions of higher education are entreated to go beyond their traditional roles to equip students with skills that are needed in the future.

Forecasting skills needed in the future, the Institute For The Future (IFTF), a think tank research organization has identified 10 skills that are needed for the future, with regards to students and universities. These skills include sense-making, social-intelligence, novel and adaptive thinking, cross cultural competency, computational thinking, new-media literacy, transdisciplinarity, design mindset, cognitive load, and virtual collaboration (Davies, Fidler & Gorbis, 2011). These skills will be needed, they argued, because of the fact that human beings are living longer and machines especially computers are becoming smarter. Furthermore, media literacy has exploded and organizations are becoming empires. Coupled with these developments and innovation in communication, distances in communications seem to be a thing of the past. Davies, Fidler & Gorbis (2011) therefore entreated educational institutions to integrate media literacy, experiential learning and interdisciplinary training into their curriculum. Also, universities should amplify critical skills and analysis in their curriculum.

Significance of the workplace and university education

The world of work in the 21st century has seen a lot of changes in recent years (Parker, 2008). To begin with, the demographics of the working population has changed considerably with racial and ethnic minorities having the least education, even though they are experiencing the fastest growth rates (Massachusetts Business Alliance for Education (2006). Second, unlike the traditional hierarchical work place, managements now demand workers to assume more responsibilities, engage more in decision-making, flatter organizational structure and engage in more team based work (O'Neil, & National Center for Research on Evaluation, 1992). All these factors have therefore increased expectations among the workforce in the United States of America.

Significant forces such as globalization, technological expansions and advancement, economic instabilities, demographic trends and increasing unemployment have dramatically affected both employees and employers around the world (Friedman, 2005). In recent times, many employers' top challenge is finding and keeping high caliber employees (HireRight, 2014). In addition, graduates in recent times have gained little understanding of how their academic achievements translate into finding and remaining successful in their chosen careers (Grummon, 1997).

Although the US unemployment rate bounces back and forth around 6.0 percent, with about 14 million people seeking employment, business executives pinpoint recruiting and maintaining a quality workforce as their number one challenge (US chamber of Commerce, 2011). A competing explanation by researchers is that the interaction of globalization and the ageing US population is responsible for the deficit in labor needed in the workforce (Tranks, Rynes & Bretz Jr., 2002). A recent report by the University of Phoenix and the U.S. Chamber of Commerce defined the American workforce as "residents between 18 and 55 years of age who are working full- or part-time, self–employed, seeking employment, or committed stay-at-home parents" (US Chamber of Commerce, 2011, p.6).

Since the mid-1980s however, American men have been exiting the workforce at a much slower pace (Quinn, 2010). Current workers, mostly baby boomers, work longer in the workforce due to healthy lifestyles and a longer lifespan. The 2010 U.S. Census, for instance, projects that from 2010 to 2030, Americans between the ages of 20 to 64 will see an increase of just 10 percent in contrast to 80 percent of those between the ages 65 and older remaining in the workforce (U.S. Census, 2010). This retirement trend that is occurring in stages at different locations or different industries comes with its pros and cons with most of the employees who

are retiring being very skilled workers. This leaves a large pool of workers with a vast experience to their advantage which ironically they use when they are competing with new entrants, even though some of them have some shortfalls in the use of technology and social media domain – a trait that is in high demand in the 21st century.

On the other hand, employers and organizations also have the challenge of sieving through the bulk of students churned out from institutions of higher education in order to find the right match. Recruiting recent graduates and students who have graduate degrees remains a major strategic challenge for Human Resource (HR) departments especially of large organizations (Slaughter, Stanton, Mohr & Schoel, 2005). Employers perceive students with graduate degrees as highly valuable and they are always in demand for graduates with these levels of knowledge (Council of Graduate Schools, 2009). For instance, the Bureau of Labor Statistics (2012) projected an increase of 22% for jobs that would require a master's degree and 20% for jobs requiring doctorate and professional degrees by 2020. While some organizations place emphasis on experience, most organizations combine school achievement in terms of Grade Points Averages (GPA), Graduate Record Exams (GRE) scores, and courses taken with experience related to the available position. These credentials enable the selection and recruitment departments to narrow down potential candidates. This process is followed by batteries of tests and interviews with the aim of choosing candidates that best fit their criteria and are *work ready*. That is an individual "that possesses the foundational skills needed to be minimally qualified for a specific occupation as determined through a job analysis or occupational profile" (ACT, 2013, p. 7).

Work Readiness

Work readiness is a relatively new construct in the career development and training and development literature. In addition, it is in its infant stages of development. It is difficult for all to agree on one definition of work readiness and what skills and attributes indicate work readiness (Casner-Lotto & Barrington, 2006). Despite this lack of consensus, it is regarded as a selection criterion that predicts graduate potential in the workforce (Casner-Lotto & Barrington, 2006; ACNielsen Research Services, 2000; Hart, 2008). Cabelloro and Walker (2010) defined work readiness as the level to which graduates are perceived as possessing attitudes and attributes that will enable them to be prepared for success in the workforce. Graduate students as used here refer to students who have completed their undergraduate degrees or graduate degrees and are going to the workforce to work. These groups of students fall into the category Gianakos (1996) referred to as adult students (that is students above age 20).

There is another definition for the term, work ready. The ACT (2013) defined a work ready individual as one having "the foundational skills needed to be minimally qualified for a specific occupation as determined through a job analysis or occupational profile" (p. 3). The report also indicated that the skills that are needed to be work ready are "both foundational and occupational specific, vary both in importance and level for different occupations, and depend on the critical tasks identified via a job analysis or an occupational profile" (p. 3).

In developing a work readiness inventory, Brady (2010) also defined work readiness to mean "those personal attributes, worker traits, and coping mechanisms needed not only to land a job, but to keep that job" (p. 4). Brady (2010) distinguished between these work readiness attributes and academic or technical competencies acquired in reading, writing and arithmetic.

Following this chain of thought, one would not be wrong to say that there is a disconnect between students' conceptualization of readiness for work and that of hiring personnel from many of these recruiting organizations. This disconnect is reflected in the student skills index (Chegg, 2013). To investigate this, Chegg (2013) found out that students place more importance on school prestige than hiring managers as a variable influencing their work readiness. Secondly, students overinflate the value of professional or personal connections (who you know) as compared to managers. Also, students place a high premium on high GPAs as a determinant of their readiness for employment, even though this requirement is not extremely important to recruiting managers. These disconnects are not only limited to students and employers. This is because within the research arena, the construct of work readiness remains fragmented.

Theoretical Foundations

The literature on graduate recruitment has not provided clear conceptualization of work readiness among graduate students (Casner-Lotto, et al., 2006). In a recent review of assessments on work readiness by Caballero & Walker (2010), they noted that the construct of work readiness is still in its early stages of development. As a result, work readiness is not clearly defined, or measured. It is therefore common to see different conceptual frameworks with some number of skills identified as criteria for determining work readiness. To complicate the situation, different constructs are used to refer to work readiness, ranging from employability, employment readiness, workforce readiness, work preparedness, "graduateness," graduate employability, ready to work, and workplace readiness. These terms have also been used for different populations, such as veterans going back to the workforce, unemployed individuals going back to the workforce, high school graduates transition to the workforce, college graduates entering the workforce as well as unskilled labor force receiving training for a specific industry.

Interestingly, most studies on the topic focus on identifying and measuring the skills and attributes of work readiness. Even though the lists of skills and attributes vary and are labelled differently, some of the common themes that emerge include communication, motivation, initiative, creativity and interpersonal skills (Caballero & Walker (2010).

In discussing the link between work readiness and success at the workplace, the Social Cognitive Career Theory (SCCT) from Bandura's (1986) general social cognitive theory is used to explain this relationship (see Figure 1).
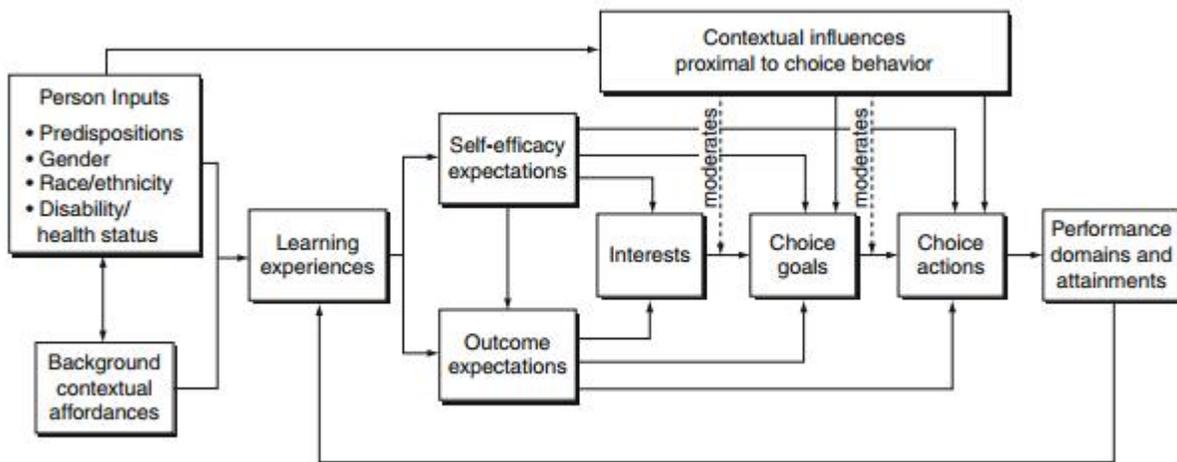
Figure 1. The social cognitive career theory model of person, contextual, and experiential factors that affect career-related choice behavior (From Lent et al. 1994. Copyright © 1993, by R. W. Lent, S. D. Brown, and G. Hackett).

This theory affirms that personal attributes such as an individual's internal cognitive and affective states, external environmental factors as well as overt behaviors influences one another. In terms of career-related behaviors, Lent and Brown (1996) identified three building blocks that regulate an individual's career behavior. These are self-efficacy beliefs, outcome expectations and personal goals. A person's self-efficacy beliefs enable the individual to judge his or her capacity to not only organize but to implement various courses of action in order to arrive at a

goal. Outcome expectations are the beliefs that are associated with the consequence or the outcome of engaging in a particular behavior. Personal goals become the motivation factor because they determine the individual's intention to engage in the outcome-producing activity (Bandura, 1986).

Self-efficacy, among the three components, is therefore vital for career-related performance. Self-efficacy does not only influence the level of success in performing a task but also determines to a large extent how the individual would persist when faced with obstacles (Lent & Brown, 1996). Thus an individual believing that they are capable (or ready) for performing tasks will be successful at that task. But proximal environmental variables do moderate and affect the processes of interests to goals as well as goals to actions. Hence an individual's perception of his or her readiness to work in the world of work has been linked to performance in organizations (DeRue & Morgenson, 2007) as well as work tasks and work roles in specific domains (Bertz, 2004).

Work readiness perceptions among employers

In a national survey of employers in the US on hiring of graduates, the important skills evaluated and sought after are the soft skills. About 60% to 80% place importance on soft skills such as "ability and willingness to learn new skills," "critical thinking and problem solving," collaboration/teamwork skills," "interpersonal communication" and the ability to analyze and "synthesize information." Only about 50% place importance on "subject matter expertise." Even though these are the skills sought after and evaluated in potential hires, ironically, employers reported that less than two-thirds of their workers have these soft skills (US Chamber of Commerce, 2011). That is to say that albeit employers value education, they place much emphasis on some particular aspects of educational programs.

Another study with over 150 organizations by Gardner and Liu (1997) compared recent graduate employees (technical and non-technical graduates) with their job performance requirements. The employers rated 52 skills and competencies needed for a job in order to assess graduate performance as well as their preparation for work. The results showed that some employees perceived their hired employees as insufficiently prepared for the work they have been hired for. Overall, both groups of graduates were perceived by their employers as lacking relational and personal competencies. Specifically, technical graduates showed higher deficiencies in speaking and listening, writing, organizational as well as personal skills compared to their non-technical counterparts.

Hart (2008) also surveyed 301 organizations in the quest to determine employers' perception of graduates' work readiness. The study showed that employers were satisfied with the entry level skills that graduates had. However, employers were not satisfied with the skills and knowledge needed to advance in the organization and pointed to deficiencies in their skills level. The skills that graduates students were deficient in included global knowledge, self-direction, writing, critical thinking and adaptability. Similar results were identified by ACNielson Research Services in Australia where 1105 Australian employers identified creativity, problem solving skills, oral business communication skills as well as interpersonal skills as less satisfactory among graduates.

In a recent study, 1,000 hiring managers were asked to rate the preparedness of recent graduates for jobs they had applied for in their fields of study. The results showed that 39% of hiring managers indicated that recent graduates were ready for work (Chegg, 2013). What is common with all these studies on employers is that they lay the blame on educational systems

(not students) as primarily responsible for students' deficient workforce readiness (Casner-Lotto & Barrington (2006).

In terms of variables that hiring managers perceive as required competence that students need in order to develop these skills, they identified taking a leadership role while in the program of study, completing a formal internship and participating in extracurricular activities related to their field of study such as article publication, and presentations at conferences (Chegg, 2013).

Standards and Benchmarks

In higher education, professional and non-cognitive skills significantly contribute to students' success in the educational and professional environment; such as academic achievement, degree completion time, and employment after graduation (Wendler et al, 2012). Researchers and institutions have therefore been demanding for identification of noncognitive and non-academic abilities that are essential for success in the workforce.

The field of Industrial and Organizational Psychology has therefore devoted a team of researchers to determine the necessary skills needed for successful performance of specific duties. Their focus was to identify skills, abilities and personal characteristics that are best predictors of successful job performance (ACT, 2013). There is no doubt that foundational cognitive skills have been esteemed as best predictors of job performance, however, soft skills do add accuracy to these predictions (Hurtz & Donovan, 2000). Schmidt and Hunter (1998) have shown that adding personality measures increases performance prediction by 18% and integrity test by 27% than using cognitive test alone. Some of the soft skills have been identified as highly valued by employers yet lacking among entry level graduates (see Table 1).

Table 1.
Summary of work readiness skills

Resource	Work Readiness skills identified
Career Clusters Framework, National Association of State Directors of Career Technical Education Consortium	Applied Academic skills, Critical thinking skills, Interpersonal skills, Personal Qualities, Resource Management, Information use, Communication skills, Systems thinking, Technology use
National Work Readiness Credential	Critical thinking skills, Interpersonal skills, Personal Qualities, Communication skills, Systems thinking, Technology use
National Career Readiness Certificate, ACT	Applied Academic skills, Critical thinking skills, Interpersonal skills, Personal Qualities, Information use,
Industry Competency Models, Employment and Training Administration, US Department of Labor	Applied Academic skills, Critical thinking skills, Interpersonal skills, Personal Qualities, Resource Management, Information use, Communication skills, Systems thinking, Technology use
Employment and Training Administration (ETA), Careeronestop.org	Teamwork, Adaptability/Flexibility, Customer Focus, Planning & Organizing, Creative Thinking, Problem solving & Decision Making, Working with tools & Technology, Workplace Computer Applications, Scheduling & Coordinating, Checking, Examining &Recording, Business Fundamentals
Secretary's Commission on Achieving Necessary skills (SCANS), US Department of Labor	Applied Academic skills, Critical thinking skills, Interpersonal skills, Personal Qualities, Resource Management, Information use, Communication skills, Systems thinking, Technology use

(Table 1 continued)

Resource	Work Readiness skills identified
Hambur, et al, 2002, Graduate Skills Assessment by the Australian Council for Educational Research	Written Communication, Critical thinking, Problem Solving, Interpersonal Understandings
Caballero, Walker & Fuller-Tyszkiewicz (2011) - WRS	Personal Characteristics, Organizational Acumen, Work Competence, Social Intelligence

Federal legislations, states, and organizations (academic and non-academic) have therefore been calling for this gap between higher education and workforce preparedness to be bridged. There is, however, lack of consensus on how to address this issue. Grummon (1997) advocated for development of a taxonomy of generic workplace skills. There is now proliferation of skills, credentials, and workplace keys that have been identified as indicative of work readiness. A summary of these taxonomies or models is provided in Table 1.

Even though assessment of work readiness skills for specific occupations or job positions is easier than assessment of generic skills, employers tended to describe generic workplace skills when they are asked about what they are looking for among graduates (Grummon, 1997). That is, employers place more importance on graduates that have skills and attributes that can be utilized across jobs. Some skills such as interpersonal skills or teamwork transfer across different content areas. Moreover, some skills are not very essential compared to others within a specific domain, nonetheless, some are highly valuable across a number or domains. One can argue therefore that the more a graduate is work ready with one or more of these skills that cut across many domains (e.g. technology use) the more employable and successful that individual will be in a given occupation.

Perceptions of Work readiness among students

Higher educational institutions' goal of providing quality education for students is intrinsically linked to developing students for life to solve problems after graduation. Moxley, Najor-Durack, and Dumbrigue (2001) asserted that retention in higher education should go beyond keeping students in school to helping students develop and become successful students. There are a number of assessments to determine whether students' knowledge is expanded in addition to students attesting to either receiving quality education or not. However, preparation of students for post-graduation especially for the world of work is hardly assessed among students. In the US, the Goals 2000 as well as School-to-Work Opportunities acts were passed in 1994 to draw attention to this gap, even though there were no explicit mandates (Grummon, 1997). Organizations therefore use their own means and batteries of tests to make this determination. It is obvious that we cannot pinpoint one skill that is the magic bullet for every task or position at the workplace. Similarly, one can argue that some skills are highly valued in multiple positions. The underlying denominator, perhaps is possessing more of these valued skills in any position. Studies on students' perception of their work readiness are however scant.

The Educational Testing Service which conducts Graduate Records Exams (GRE) for students, surveyed 1,925 students who completed graduate school and are employed about their perception of the importance and preparation of workplace skills. Their results showed that oral communication (83%), planning/ organization (78%), ethics and integrity (75%), teamwork (72%), and writing skills (70%) were very important in their current position (Ezzo, 2013). When students were asked about their perceptions of preparedness by their graduate programs, a majority of the students indicated that they were well-prepared except in the following: publications, creativity, technological comfort and savvy, and teaching and training (Ezzo,

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2013). It is important to point out that these results were only descriptive and based on students' self-reports.

Some of the studies conducted among students were specific to certain professions, for example nursing (Walker & Campbell, 2013), engineering (Jollands & Molyneaux, 2012), and health (Walker et al., 2013). In addition to these studies being domain specific, they studied different variables that are influenced by work readiness. Walker and Campbell (2013) for instance, investigated the influence of work readiness on job satisfaction, work engagement and intention to remain among graduate nurses in their first year of practice. Their results showed significant correlation even though they cautioned that there was no test for social desirability bias (Walker & Campbell, 2013). In the case of Jollands and Molyneaux (2012), they explored, qualitatively, work readiness among graduate engineers who undertook a project-based curriculum versus a traditional curriculum. Their findings suggested that project-based learning was a contributing factor to work readiness, especially regarding work readiness skills such as communication.

Factors influencing work readiness

Graduate program completers face the arduous challenge of presenting their academic credentials as well as their experiences on their CVs or Resumes to make a case to their potential employers that they are ready to work. Completing a graduate program in itself has been studied in the literature. Tinto (1993) for instance made an attempt to develop a model that will simplify graduate persistence and attrition. In this model, Tinto (1993) postulated different components which included Student attributes, External commitments, Individual goals, Commitments, Financial resources and Participation in graduate school. While these components may be broadly defined and difficult to identify what constitute student attributes or external

commitments that are significant contributors to a graduate student completing his or her program; there seems to be a consensus that engaging in some form of work-related experiences as part of the curriculum prepares the student for the world of work. For example, the Massachusetts Business Alliance for Education (2006) recommended that colleges should require work experience through internships, incorporate public speaking, think of school as students' first job, enforce tardiness rules as well as team projects, and add co-curricular opportunities so that students can acquire work skills.

These components culminate in producing a master's or PhD graduate ready for employment. Obtaining an employment, on the other hand, depends on many factors including the student's accomplishments, department rankings and university rankings (Stenstrom, Curtis, & Iyer, (2013). In a national survey of Psychology graduate students, with data on departmental rankings from National Research Council, their strongest predictor was departmental rankings after controlling for individual accomplishments. These individual accomplishments included publications, conferences attended, posters and teaching assistant experience (Stenstrom, Curtis, & Iyer, 2013).

In another study on an undergraduate population, Qenani, MacDougall & Sexton (2014) studied factors that influence self-perceived employability of students. These factors included G.P.A, University Reputation, Gender, Major, Internship, Personality, and Self-managed career behavior. The results showed that Internship experience and self-managed career behavior and University reputation contributed to an increase in a student's confidence when it comes to employability.

The preceding results in addition to the studies from employers' perspectives on work readiness are inconclusive. It is therefore important to investigate how graduate students perceive

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themselves as ready for the workforce. Relationships between variables such as having an assistantship, participation in conferences, internships, publication status can also be explored. Differences in demographics of graduate students in terms of whether or not they are US citizens can also be explored.

CHAPTER 3: METHODOLOGY

Purpose of the Study

The primary purpose of this study was to investigate perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States.

Dependent Variable

The dependent variable in this study was perceived work readiness of graduate program completers as measured by six Likert scale items in the Graduating student survey at a Research University (RU/VH) in the Southeastern Region of the United States.

Specific Objectives

The following were the guiding objectives throughout this study:

1. To describe graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States on the following personal and academic characteristics:

    a) Whether or not US citizen

    b) Most likely activity after graduation (Self-reported)

    c) Whether or not the student had an Internship

    d) Whether or not the student had an Assistantship

    e) Publication Status

    f) Participation in Conferences

    g) Graduate level (MS or PhD)

    h) Whether thesis or non-thesis student (MS only)

2. To determine the perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States as measured by responses to selected items on a Graduating Student Survey.

3. To determine if a relationship exists between perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States and the following personal and academic characteristics:

   a) Whether or not US citizen

   b) Most likely activity after graduation (Self-reported)

   c) Whether or not the student had an Internship

   d) Whether or not the student had an Assistantship

   e) Publication Status

   f) Participation in Conferences

   g) Graduate level (MS or PhD)

   h) Whether thesis or non-thesis student (MS only)

4. To determine the perceptions held by graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States regarding the University's performance in preparing them for the workforce as measured by responses to selected items on a graduating student survey.

5. To determine if a model exists explaining a significant portion of the variance in the perceived work readiness of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States from the following personal and academic characteristics:

   a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Access to faculty expertise

i) Access to facilities

j) Satisfaction with career center

Population and Sample

The target population for this study was all graduate program completers at Research Universities (RU/VH) in the Southeastern Region of the United States. These Universities serve diverse populations and their students come from different socioeconomic and school backgrounds.

The accessible population was defined as graduate program completers at one Research University (RU/VH) in the Southeastern Region of the United States. A total sample of 967 graduate program completers who completed the Graduating Student Survey in the year 2014 was used for this study.

Instrumentation

The Graduating Student Survey conducted by the Research University's Career Center every graduating semester was used as the primary data collection instrument. The survey had personal and academic information and items that measured perceived work readiness of graduate program completers. The survey also had items that measured students' perceptions of

their departments, and the university in preparing them for the world of work. The survey had base questions and departmental level questions. The survey took about 10 - 15 minutes to complete all sections.

Data Collection

The data for this study were collected from the Research University's Career Center. This organization has been administering and collecting data on graduate program completers over the years. The current data spanned each graduating semester in the year 2014. The data were recorded onto a computer based recording form. After all traceable information was removed, the raw data were saved in Excel. This data were then recoded and labelled in the IBM's Statistical Package for Social Sciences (SPSS). The original data had string data which were subsequently converted to numeric for further analysis.

Ethical Considerations and Study Approval

The "Human Subjects Training" was completed with the National Institute of Health prior to data collection. An application to be exempted from an institutional oversight was tendered with the Institutional Review Board and their approval was granted (see Appendix for approval #E9158).

Data Analysis

The data analysis was divided into three stages. Stage one involved screening the data. This was done to check for accuracy of the data file, missing data, outliers, as well as to check for assumptions such as Normality and Homoscedasticity. In checking for the accuracy of the data, the data in SPSS were compared with the survey instrument and the excel sheet to ensure that the data were entered correctly. All string data were recoded into numeric, and re-checked with the original data. This was done by printing out the case summaries and frequencies of the

old string data with the new numeric data. These procedures were used to ensure that the transferred data is accurate and there were no out of range values. No items were reverse coded in this data.

The researcher decided to retain respondents who answered items related to the dependent variable (perceived work readiness). All cases with missing data on all items of the dependent variable were therefore deleted. Hair, Black, Babin and Anderson (2010) indicated that data that has less than 10% of it missing can be ignored when these data appear to be missing completely at random.

The continuous variable in this study was converted to standardized scores to check for outliers. As a rule of thumb, Hair, Black, Babin and Anderson (2010) indicated that small samples, that is 80 or fewer cases, outliers in that data are typically cases that have a standard score of 2.5 or greater. And for larger samples sizes, the threshold is increased to standard scores of 4 and beyond as outliers. However, Cohen, Cohen, West and Aiken (2003) also suggested that "if outliers are few (less than 1% or 2% of n) and not very extreme, they are probably best left alone" (p.128). In this data (n=967), the perceived work readiness variable has 1% of its standardized scores from $3.3 - 3.5$. As this data is large and these cases represented only 1% of the data, these cases were maintained in the data and used in the analysis. For the categorical variables, frequencies were used to determine if there were extremely uneven split. There were no extremely uneven split in the data, hence none of the categorical variables were deleted from the analysis.

Test of normality was conducted using normal probability plots of residuals, Shapiro wilk's test, as well as skewness and kurtosis analysis. Examination of these indicated that the data were approximately normally distributed with small deviations.

Levene's test was conducted with all the predictors and the dependent variable to check for Homoscedasticity. The significant values ($p > 0.05$) on the Levene's test showed that there is homogeneity of variance in the dependent variable (perceived work readiness).

Prior to computing a composite score for the dependent variable "perceived work readiness," a Cronbach's alpha was computed on the six items to determine the internal consistency of the scale. To further test whether the scale was unidimensional, exploratory factor analysis was conducted. The principal component analysis with oblique solution was used. Factors that have eigenvalues greater than 1 were thus retained.

The second stage was to describe the data according to the specific objectives. Measures of central tendency and histograms were used to describe the data. These results were presented in terms of the objectives of the study.

The third stage was testing for relationships according to the objectives involved. The appropriate correlational analysis was chosen based on the levels of measurement of the variables and utilizing analysis that provided the most meaningful way to understand these relationships. Lastly, regression analysis was conducted to help explain the variance in the dependent variable in order to determine the significance of the predictor variables.

Objective 1

Specifically, objective one of the study was separated into component parts, and the most appropriate descriptive statistics was used to report the results. The variables in objective one were Whether or not US citizen, Most likely activity after graduation (Self-reported), Whether or not the student had an Internship, Whether or not the student had an Assistantship, Publication Status, Participation in Conferences, Graduate level (MS or PhD), Whether thesis or non-thesis

student (MS only). These variables were nominal variables, therefore frequencies and percentages were used to describe the graduate program completers on these characteristics.

Objective 2

The variable in objective two was perceived work readiness. This was measured with six Likert-type scale items measuring the underlying construct (work readiness). The program completers were asked how helpful their experiences in the research university were in developing these six skills. The response scale was 1= not at all helpful, 2= not very helpful, 3 = moderately helpful, 4= very helpful, 5= extremely helpful

A composite score was therefore computed and the means and standard deviations were determined.

Objective 3

Objective three was separated into several component parts in order to make meaningful analysis with the variables. Levene's test was also used to examine the homogeneity of the variances.

1. The first component part was to determine the relationship between perceived work readiness and "Whether or not US citizen." "Whether or not US citizen" was measured on a nominal scale (US citizen or International student). Perceived work readiness was measured at the interval level. The most meaningful analysis conducted was an independent t-test to compare the two groups perceived work readiness.

2. The second component part was to determine the relationship between "perceived work readiness" and "Most likely activity after graduation (Self-reported)." "Most likely activity after graduation (Self-reported)" was measured at the nominal level while

"perceived work readiness" was measured at the interval level. The most appropriate analysis conducted on these two variables was one-way ANOVA to compare the groups.

3. The third component was determining the relationship between "perceived work readiness" and "Whether or not the student had an Internship." "Whether or not the student had an Internship" was measured at the nominal level while perceived work readiness was measured at the interval level. Independent t-test was used to compare the two groups (having an internship and not having an internship).

4. The fourth component was to compare perceived work readiness and "Whether or not the student had an assistantship." Whether or not the student had an assistantship" was measured at the nominal level, while perceived work readiness was measured at the interval level. The most appropriate test utilized was independent t-test.

5. The fifth component was finding the relation between perceived work readiness and "publication status." "Publication status" was measured at the nominal level while "perceived work readiness" was measured at the interval level. The most appropriate analysis conducted on these two variables was one-way ANOVA to compare the groups.

6. The sixth component was determining the relationship between "Participation in conferences" and "perceived work readiness." Participation in conferences was measured at the nominal level while "perceived work readiness" was measured at the interval level. For meaningful analysis, a one-way ANOVA was used to compare the groups.

7. The next component was determining the relationship between "Graduate level (MS or PhD)" and "perceived work readiness." "Graduate level (MS or PhD)" was measured at the nominal level and "perceived work readiness" was measured at the interval level.

Therefore an Independent t-test was used to compare the two groups on their perceived work readiness.

8. The last component was analyzing the relation between "Being a Thesis or Dissertation student" and "perceived work readiness." "Being a Thesis or Dissertation" student was measured at the nominal level and "perceived work readiness" was measured at the interval level. Independent t-test was used to compare the two groups ("Being a Thesis or Dissertation" student or not).

Objective 4

The fourth objective was to determine the perceptions held by graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States on the University's performance in preparing them for the workforce as measured by responses to selected items on a graduating student survey. These perceptions were measured with three items. These items were 'Access to Facilities,' 'Access to faculty expertise,' and 'Satisfaction with career center.' These variables were measured on ordinal scale and there are no underlying scale imputed; hence frequencies and percentages were used to present the result.

Objective 5

The fifth objective was to determine if a model exists explaining a significant portion of the variance in the perceived work readiness from the following:

    a) Whether or not US citizen

    b) Most likely activity after graduation (Self-reported)

    c) Whether or not the student had an Internship

    d) Whether or not the student had an Assistantship

    e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Access to faculty expertise

i) Access to facilities

j) Satisfaction with career center

The researcher used hierarchical regression to conduct this analysis. The dichotomous variables (Whether or not US citizen, Whether or not the student had an Internship, Whether or not the student had an Assistantship, and Graduate level (MS or PhD) were used in this analysis as they are. The other nominal predictor variables (Most likely activity after graduation (Self-reported), Publication Status, Participation in Conferences) were dummy coded prior to the analysis. The rest of the variables were entered into the regression without any transformation.

CHAPTER 4: RESULTS

The purpose of this study was to investigate perceived work readiness among graduate program completers in the Southeastern Region of the United States. The dependent variable in this study was perceived work readiness.

The following were the guiding objectives throughout this study:

1. To describe graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States on the following personal and academic characteristics:

   a) Whether or not US citizen

   b) Most likely activity after graduation (Self-reported)

   c) Whether or not the student had an Internship

   d) Whether or not the student had an Assistantship

   e) Publication Status

   f) Participation in Conferences

   g) Graduate level (MS or PhD)

   h) Whether thesis or non-thesis student (MS only)

2. To determine the perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States as measured by responses to selected items on a Graduating Student Survey.

3. To determine if a relationship exists between perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States and the following personal and academic characteristics:

a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Whether thesis or non-thesis student (MS only)

4. To determine the perceptions held by graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States regarding the University's performance in preparing them for the workforce as measured by responses to selected items on a graduating student survey.

5. To determine if a model exists explaining a significant portion of the variance in the perceived work readiness of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States from the following characteristics:

a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Access to faculty expertise

i) Access to facilities

j) Satisfaction with career center

The results presented in this chapter are based on the accessible population of 967 graduate program completers who graduated in the year 2014 and completed the Graduating Student Survey. The sample therefore was all the graduate students who responded to the survey and provided useable data for the study. To provide the reader with a clearer view of the students in the study, the academic majors represented among the respondents is provided. The 10 majors with the highest number of respondents are presented in Table 2. The majors represented by the largest number of students were Business Administration MBA (n = 88, 9.1%) followed by Social Work MSW (n = 78, 8.1%). The complete table is included in Appendix B.

Objective One

Objective one of this study was to describe graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States on the following personal and academic characteristics:

a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Whether thesis or non-thesis student (MS only)

Table 2

Top ten majors of graduate program completers from a Research University (RU/VH) in the Southeastern Region of the United States

Major	Number	Percent
Business Admin MBA	88	9.1
Social Work MSW	78	8.1
Accounting MS	49	5.1
Library & Information Science MLIS	32	3.3
Music MM	30	3.1
Kinesiology MS	27	2.8
Public Administration MPA	26	2.7
Communication Disorders	24	2.5
Info Systems & Dec Sciences MS	23	2.4
Elementary Education (Grades 1-5) MAT	22	2.3

Note. N= 967

Whether or not US citizen

This variable described whether the graduate program completer was a US citizen or an International student. Of the 967 graduate students who provided this information, US citizens accounted for 77.3% (n=746) while International students made up 22.7% (n=219). Two students did not answer whether or not they were US citizen.

Most likely activity after graduation (Self-reported)

Another variable on which the students were described was most likely activity of graduate program completers after graduation. Table 3 showed the top four most likely activities of graduate program completers after graduation. Only frequencies above 10 are presented in the table. For additional clarity of results, these data are reported separately for master's and doctoral students. The results showed that of the 967 graduate program completers, 85.7% (n=609) of master's students indicated that their most likely activity after graduation was employment, full time (paid) compared to 68% (n=174) of doctoral program completers. However, 23% (n=59) of doctoral program completers indicated graduate or professional school as the second highest activity after graduation compared to 6.6% (n=47) of master's program completers. A complete list of all reported most likely activities after graduation is included in Appendix C. The complete table also includes those who selected other activities.

Whether or not the student had an Internship

Another variable measured was whether the graduate program completers had an internship during their program of study prior to graduation. Of the 967 graduate program completers, 303 (31.4%) had an internship and 662 (68.6%) did not participate in any form of internship throughout their graduate education. Two students did not provide answers to this question.

Table 3

Top four most likely activities of graduate students after graduation in a Research University (RU/VH) in the Southeastern Region of the United States

	Master's		Doctorate		Total	
	n	*%*	*n*	*%*	*n*	*%*
Employment, full-time paid	609	85.7	174	68.0	783	81.0
Graduate or professional school, full-time	47	6.6	59	23.0	106	11.0
Employment, part-time paid	14	2.0	7	2.7	21	2.2
Starting or raising a family	9	1.3	4	1.6	13	1.3
Total[a]	711	73.5	256	26.5	967	100

Note. N= 967

[a] Total values based on the complete table (Appendix C)

Whether or not the student had an Assistantship

Graduate program completers were also asked whether they had an assistantship during their graduate education or not. Of the 967 graduate program completers, 56.6% (n=543) answered Yes, and 43.4% (n=416) answered No. Eight students did not answer this question.

Publication Status

Another description on which graduate students were classified was whether they were able to publish their research works. Of the 967 students, 572 were identified as master's non-thesis students and as such were not required to respond to this item. Table 4 showed the responses of the 395 graduates. The results showed that 21.3% (n=84) published more than one refereed journal paper and 39.5% (n= 156) of graduate program completers were uncertain about publishing.

Table 4
Publication status of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States

Publication	N	Percent
One refereed journal paper published	48	12.2
More than one refereed journal paper published	84	21.3
One refereed journal paper submitted	31	7.8
More than one refereed journal paper submitted	25	6.3
Book manuscript submitted	11	2.8
Publication uncertain	156	39.5
Will not publish	40	10.1

Note. N= 395

Participation in Conferences

When graduate program completers were asked if they participated in conferences, a total

of 959 responded, and eight graduates did not answer this item. Of those who answered, 525

(54.7%) students had not attended any conferences. Of the rest of the students who attended

conferences, 202 (21.1%) graduate program completers attended three or more conferences. A

complete distribution of graduate program completers' participation in conferences is presented

in Table 5.

Table 5
Participation in Conferences of graduate program completers at a Research University (RU/VH)
in the Southeastern Region of the United States

	n	Percent
None	525	54.7
One	135	14.1
Two	97	10.1
Three or more	202	21.1
Total	959	100

Note. N = 967

Whether thesis or non-thesis student (MS only)

Another variable that was used to describe graduate program completers was whether or

not the graduates were thesis or non-thesis students. This variable related to master's students

only because all doctoral students conduct a dissertation as part of their program, unlike the

master's students many of whom choose thesis or non-thesis option. Of the 704 master's students

who responded to this item, only 172 (24.4%) completed a thesis as part of their program. A total

of 532 (75.6%) followed a non-thesis path in their graduate program.

Graduate level

Another variable on which the graduate program completers were described was their

graduate level. Of the 967 students, there were 711(73.5%) master's students and 256 (26.5%)

doctoral students.

Objective Two

Objective two was to determine the perceived work readiness among graduate program

completers at a Research University (RU/VH) in the Southeastern Region of the United States as

measured by responses to selected items on a Graduating Student Survey.

This analysis started with determining the mean and standard deviation of each item in

the work readiness scale (see Table 6).

Table 6
Self-perceived work readiness among graduate program completers in a Research University
(RU/VH) in the Southeastern Region of the United States

Work readiness skills[a]	Mean	SD
Ability to work with others	3.99	0.96
Collaboration with others	3.92	0.97
Connecting to other knowledge, ideas, experiences	3.91	0.92
Building meaningful relationships	3.89	1.03
Determining future career	3.84	1.07
Relating knowledge to daily life	3.77	0.97

Note. $N = 967$.
[a] Work readiness skills were measured on a Likert-type scale: 1= not at all helpful, 2= not very helpful, 3 = moderately helpful, 4= very helpful, 5= extremely helpful

As can be seen in Table 6, the item which received the highest mean rating ($M = 3.99$, $SD = 0.96$) was Ability to work with others while Relating knowledge to daily life received the lowest rating ($M = 3.77$, $SD = 0.97$) among graduate program completers.

A Cronbach's alpha was conducted on the six items in the work readiness scale to determine the internal consistency of the scale. The results showed the scale to be highly reliable (six items; $\alpha = .911$). A reliability coefficient of .70 or higher is usually considered acceptable in the social sciences.

However, a Cronbach's alpha does not tell us whether the scale is unidimensional, therefore exploratory factor analysis (EFA) was conducted to determine whether the scale was unidimensional. Various tests were conducted on the items to determine the underlying structure. The correlation matrix showed that all six items were correlated - above 0.50. The Kaiser-Meyer Olkin measure of sampling adequacy indicated that the sample was factorable (KMO = 0.876). The Barlett's test of Sphericity was also used to test whether the population correlation matrix is an identity matrix (Pett, Lackey, & Sullivan, 2003). That is whether all the variables are uncorrelated. This test was highly significant (χ^2 (15) = 3892.34, $p < 0.001$) indicating that there are correlations in this data that are appropriate to be factored. The diagonals of the anti-image correlation matrix were all above the minimum of 0.5. Using the Kaiser criteria of eigenvalues greater than 1, and using the Cattell Scree plot examination, the initial factor analysis produced 1 factor (Figure 2) that explained 69.5% of the total variance (see Table 7).

After computing the composite score for the six items, the results showed that graduate program completers' perceived work readiness ranged from a low of 1.00 to a high of 5.00 with a mean score of 3.89 ($SD = 0.82$).

Table 7

Factor Loading, Eigenvalues, and Variance explained for items on perceived work readiness of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States

Items in the work readiness scale	Factor 1
Connecting to other knowledge, ideas, experiences	0.841
Relating knowledge to daily life	0.826
Determining future career	0.801
Building meaningful relationships	0.828
Collaboration with others	0.865
Ability to work with others	0.840
Eigenvalues	4.170
Total variance explained	69.5%

Note. Only one factor extracted
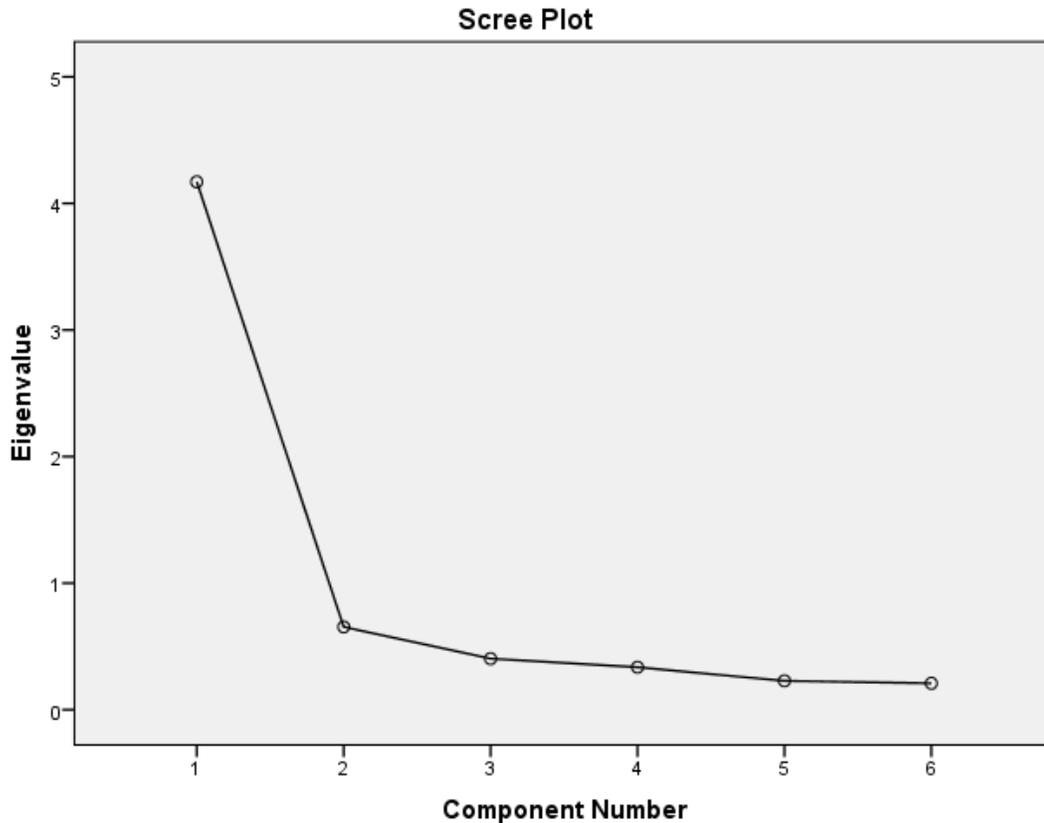
Figure 2. Perceived work readiness scale one factor solution scree plot

Objective Three

Objective three was to determine if a relationship exists between perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States and the following personal and academic characteristics:

a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Whether thesis or non-thesis student (MS only)

The appropriate statistics were selected based on the level of measurements of the variables. These results were presented based on each relationship that will offer meaningful interpretation of the dependent variable (perceived work readiness).

Whether or not US citizen

Since this variable was a dichotomous variable, an independent t- test statistical procedure was conducted to compare the two groups (US citizen or Not US citizen) on their perceived work readiness. The results showed that US Citizen graduate program completers were significantly different from Non-US Citizen graduate program completers. This difference was such that US Citizen graduate program completers ($M = 3.92$, $SD = 0.81$) had a significantly higher perceived work readiness score than Non-US Citizen graduate program completers ($M = 3.76$, $SD = 0.83$) ($t_{(963)} = 2.77$, $p = .006$, $d = 0.2$). The effect size for this analysis ($d = 0.2$) suggests a small effect according to Cohen's (1988) convention. Cohen (1988) labelled effect sizes $d = 0.2$ as small, $d = 0.5$ as medium and $d = 0.8$ as large. He however stated that "there is a certain risk inherent in offering conventional operational definitions for those terms for use in power analysis in as diverse a field of inquiry as behavioral science" (p. 25).

Most likely activity after graduation (Self-reported)

Only the top four most likely activities after graduation were used for this analysis. Groups with less than 10 cases were not used in the analysis. Graduate or professional school part-time (n = 5) was added to Graduate or professional school full-time (n = 106) for this analysis. The Analysis of Variance (ANOVA) was used to compare these groups within the

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variable on their perceived work readiness. The Levene's test for equality of variance showed

that variances were homogeneous in the different groups (F (7, 959) = 0.758, p = .622). Table 8

shows the sample sizes, means and standard deviations.

Table 8
Group sizes, Means and Standard Deviations of perceived work readiness by the most likely
activity after graduation (Self-reported) of graduate program completers in a Research University
(RU/VH) in the Southeastern Region of the United States

Most likely activity after graduation (Self-reported)	n	M	SD
Employment, full-time paid	783	3.92	0.81
Graduate or professional school, full and part- time	111	3.82	0.91
Employment, part-time paid	21	3.95	0.60
Starting or raising a family	13	3.56	0.99
Total	928	3.90	0.82

Note. One-way ANOVA, F (3, 924) = 1.24. p = .30

The one-way analysis of variance results showed no significant differences in perceived

work readiness by the most likely activity after graduation of graduate program completers (F (3,

924) = 1.24 , p = .30.

Whether or not the student had an Internship

This was a dichotomous variable, hence an independent t- test statistical procedure was

conducted to compare the two groups; having an Internship or not having an Internship on their

perceived work readiness. The results showed that graduate program completers who had an

Internship were significantly different from graduate program completers who did not have an

Internship. This difference was such that graduate program completers who had an Internship (*M*

= 4.00, *SD* = 0.78) had a significantly higher perceived work readiness score than graduate program completers who did not have an Internship (*M* = 3.84, *SD* = 0.83) ($t_{(963)}$ = 2.69, *p* = .007, *d* = 0.2). The effect size for this analysis (*d* = 0.2) suggests a small effect according to Cohen's (1988) convention.

Whether or not the student had an Assistantship

Whether or not the student had an Assistantship was a dichotomous variable, therefore an independent t- test statistical procedure was used to compare the two groups; having an Assistantship or not having an Assistantship on their perceived work readiness. The results showed that graduate program completers who had an Assistantship were significantly different from graduate program completers who did not have an Assistantship. This difference was such that graduate program completers who had an Assistantship (*M* = 3.83, *SD* = 0.83) had a significantly higher perceived work readiness score than graduate program completers who did not have an Assistantship (*M* = 3.97, *SD* = 0.82) ($t_{(957)}$ = 2.76, *p* = .006, *d* = 0.17). The effect size for this analysis (*d* = 0.17) suggests a small effect according to Cohen's (1988) convention.

Publication Status

The publication status variable had seven groups. The Analysis of Variance (ANOVA) was used to compare these groups on their perceived work readiness. The Levene's test for equality of variance showed that variances were homogeneous in the different groups ($F_{(6, 388)}$ = 1.231, *p* = .289). Table 9 shows the sample sizes, means and standard deviations. The results showed that the mean item score was highest for the 'More than one refereed journal paper submitted' group and was lowest for 'Will not publish' group.

Table 9

Group sizes, Means and Standard Deviations of perceived work readiness by the Publication status of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States

Publication Status	n	M	SD
More than one refereed journal paper submitted	25	4.23	0.63
Book manuscript submitted	11	3.95	0.95
One refereed journal paper submitted	31	3.88	0.65
One refereed journal paper published	48	3.82	0.89
More than one refereed journal paper published	84	3.73	0.80
Publication uncertain	156	3.71	0.83
Will not publish	40	3.50	1.01
Total	395	3.76	0.84

Note. 572 respondents did not respond to this item.

The one-way analysis of variance results showed significant differences between the publication status of graduate program completers on their perceived work readiness (F (6, 388) = 2.36, p = .03, η^2 = 0.04. The effect size for this analysis (η^2 = 0.04) suggested small effect according to Cohen's (1988) convention. Post hoc analysis using Tukey's HSD showed that perceived work readiness was significantly higher for those who reported 'more than one refereed journal paper submitted' than for those who reported 'will not publish'(p = .01) . There were no other significant differences between the groups.

Participation in Conferences

This variable had four groups and was analyzed using a one way Analysis of Variance (ANOVA) to compare the groups on their perceived work readiness. The Levene's test for

equality of variance showed that variances were homogeneous in the different groups (F (3, 955) = 0.300, p = .825). Table 10 shows the sample sizes, means and standard deviations. The results showed that the mean item score was highest for the program completers who participated in no conferences and was lowest for those who participated in two conferences.

Table 10
Group sizes, Means and Standard Deviations of perceived work readiness by the Participation in conferences by graduate program completers in a Research University (RU/VH) in the Southeastern Region of the United States

Participation in Conferences	n	M	SD
None	525	3.91	0.81
One	135	3.84	0.82
Two	97	3.80	0.93
Three or more	202	3.90	0.80
Total	959	3.89	0.82

The one-way analysis of variance results showed no significant differences of perceived work readiness on participation in conferences of graduate program completers (F (3, 955) = 0.721, p = .54.

Graduate level (MS or PhD)

The variable 'Graduate level' was measured as a dichotomous variable; an independent t-test statistical procedure was thus conducted to compare the two groups Master of Science (MS) or Doctorate (PhD) on their perceived work readiness. The results showed that MS graduate program completers were significantly different from PhD graduate program completers. This difference was such that MS graduate program completers (M = 3.92, SD = 0.83) had

significantly higher perceived work readiness score than PhD graduate program completers ($M =$ 3.79, $SD = 0.80$) ($t_{(965)} = 2.27$, $p = .024$, $d = 0.2$). The effect size for this analysis ($d = 0.2$) suggests a small effect according to Cohen's (1988) convention.

Whether thesis or non-thesis student (MS only)

Whether or not graduate program completers were thesis or non-thesis (MS only) was a dichotomous variable, therefore an independent t- test statistical procedure was used to compare the two groups; thesis or non-thesis on their perceived work readiness. This analysis was for only master's program completers. Only master's students had the option of thesis or non-thesis. The results showed that graduate program completers who were thesis students were significantly different from graduate program completers who were non-thesis students. This difference was such that graduate program completers who were thesis students ($M = 3.76$, $SD = 0.88$) had significantly lower perceived work readiness score than graduate program completers who were non-thesis students ($M = 3.98$, $SD = 0.81$) ($t_{(702)} = 3.01$, $p = .003$, $d = 0.26$). The effect size for this analysis ($d = 0.26$) suggests a small effect according to Cohen's (1988) convention.

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Objective Four

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Objective four was to determine the perceptions held by graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States regarding the University's performance in preparing them for the workforce as measured by responses to selected items in the graduating student survey. These items were 'Access to Facilities,' 'Access to faculty expertise,' and 'Satisfaction with career center.' Since these items had no underlying scale implied, frequencies and percentages were used to present the results (Figure 3, 4, and 5).

Access to Facilities
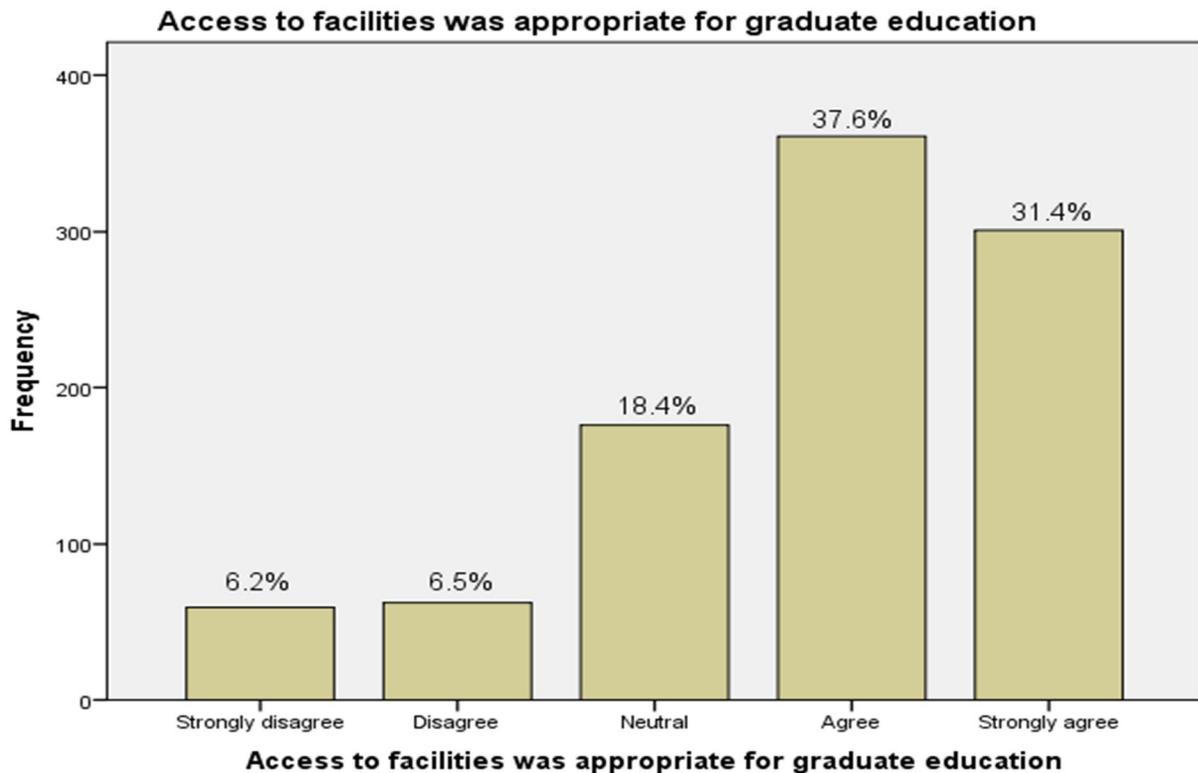
Figure 3. Graduate program completers' perception of access to facilities being appropriate for graduate education in a Research University (RU/VH) in the Southeastern Region of the United States.

As can be seen in Figure 3, of the 959 graduate program completers, 37.6% (n = 361) agree that access to facilities was appropriate for their graduation education. Only 6.2% (n = 59) strongly disagree to this question. Eight graduate program completers did not respond to this question.

Access to faculty expertise

In terms of graduate program completers' access to faculty expertise, Figure 4 shows that of the 967 graduate program completers, 36.3 % (n=348) agree and 36.1% (n=346) strongly

agree that access to faculty expertise was appropriate to their graduate education. Only 6.2% (n=59) strongly disagree to this question.
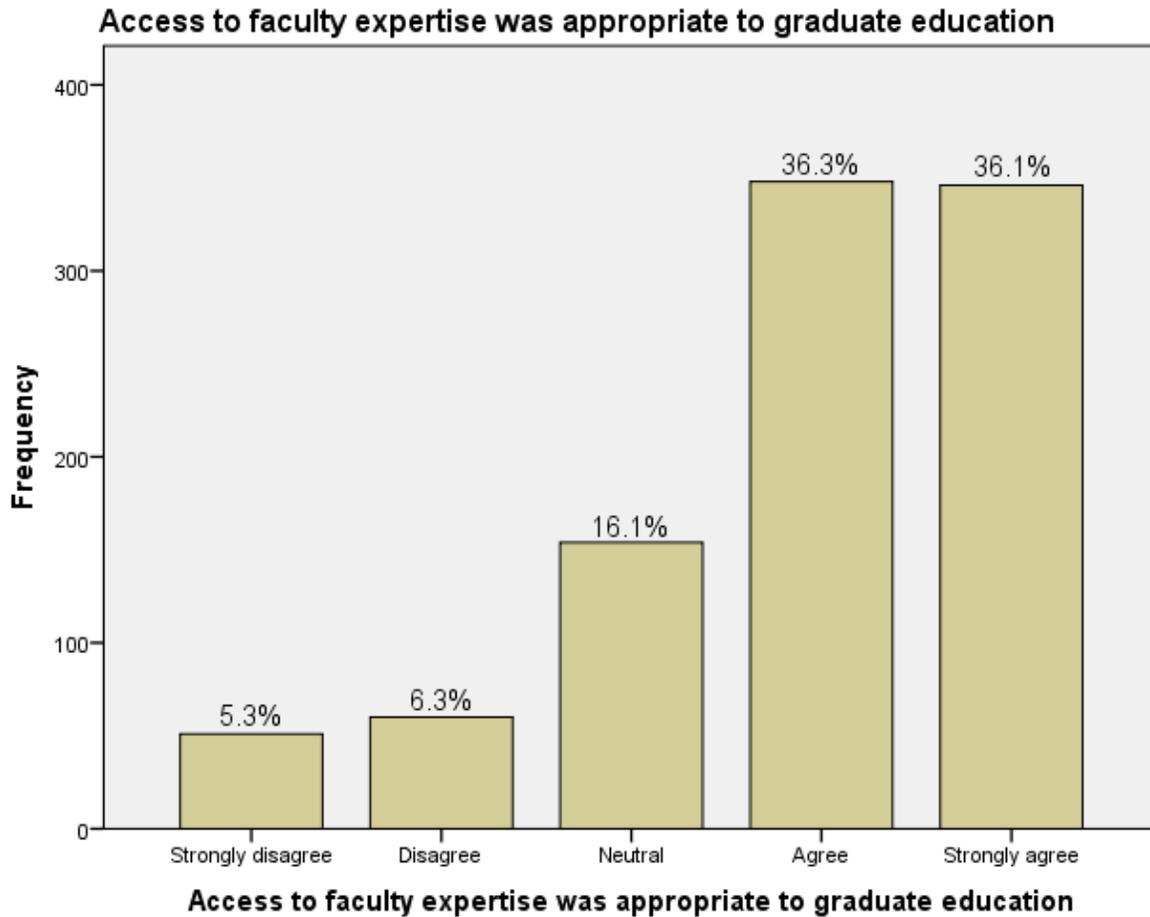
Figure 4. Graduate program completers' perception of access to faculty expertise as being appropriate to graduate education in a Research University (RU/VH) in Southern Region of United States.

Satisfaction with career center

Graduate program completers as shown in Figure 5 were somewhat satisfied (13.5%, n = 130) and satisfied (13.6%, n = 131) with the career center. A majority of the students (63%, n = 606) had no opinion/no basis to judge their satisfaction with the career center.
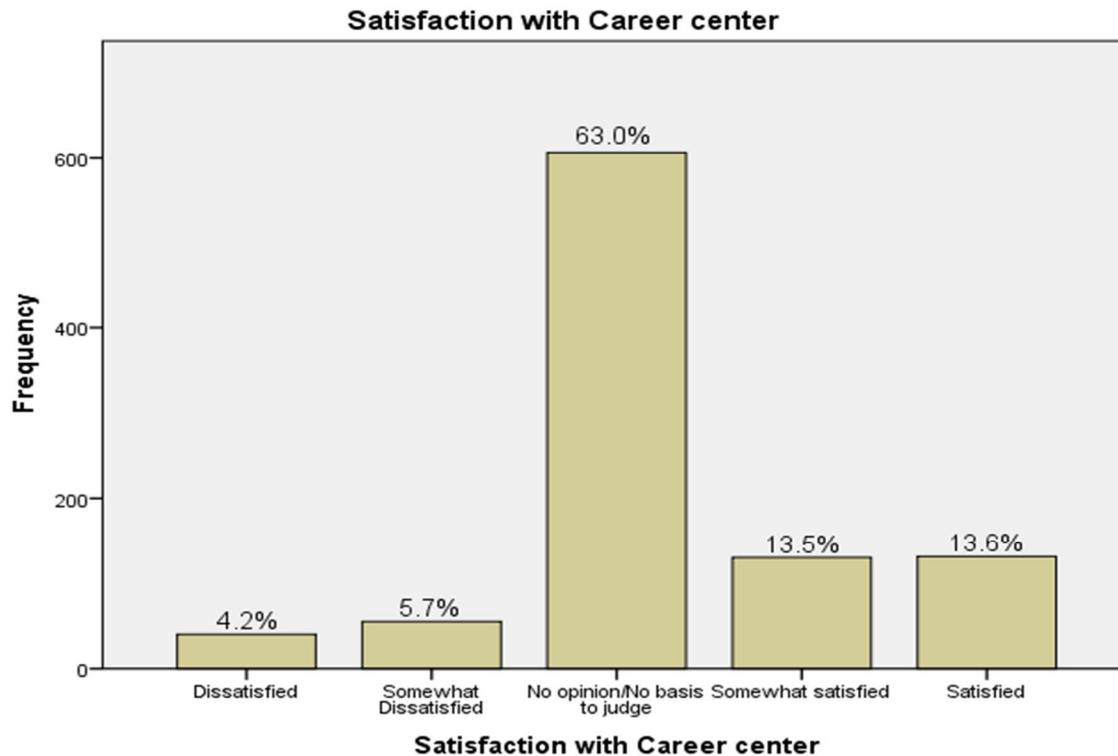
Figure 5. Graduate program completers' satisfaction with career center in a Research University (RU/VH) in Southern Region of United States.

Objective Five

Objective five was to determine if a model exists explaining a significant portion of the variance in the perceived work readiness of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States from the following characteristics:

a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

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f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Access to faculty expertise

i) Access to facilities

j) Satisfaction with career center

In order to perform this analysis, the researcher used a hierarchical regression to accomplish this objective. Hierarchical regression was used because in exploring factors influencing perceived work readiness, these factors occur in natural subsets. These naturally occurring clusters are variables that are personal or demographic characteristics, variables that involve the University and variables that have work-integrated components according to the work-integrated learning (WIL) approach. In addition, the results would offer explanation of the factors that explain more of the variance that is relevant for the objective of this study. Specifically, factors that have less theoretical and logical influence on the dependent variable (perceived work readiness) such as the demographic variables are ordered as a subset and entered into the model first. Factors with more theoretical influence on the dependent variables and could be described as having temporal precedence such as engaging in some work-related activity are also ordered into a subset and entered into the model last. The predictors were therefore grouped into three subgroups (see Table 11) and entered into the regression.

The perceived work readiness score was used as the dependent variable. The other variables were treated as independent variables. The independent variables that were dichotomous in nature were entered as such and the continuous variables were also entered into the model without any changes. The categorical variables were converted to meaningful

dichotomous variables as being a member of that category or not, before they were entered into the regression.

Table 11
Steps (order) of Independent variables specified into the regression of perceived work readiness of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States

First block IV	Second Block of IV	Third Block of IV
Whether or not US citizen	Access to faculty expertise	Employment full-time and part- time or not
Graduate level (MS or PhD)	Satisfaction with career center	Whether or not the student had an Internship
Graduate or Professional school fulltime and part time or not	Access to facilities	Whether or not the student had an Assistantship
Whether or not the student participated in conferences		One or more journal articles published or not
		One or more journal articles and books submitted or not
		Uncertain and will not publish or not

Categories that had a small number of cases were not used. Some categories were grouped to create meaningful dichotomous variables. Specifically the variable "Most likely activity after graduation (Self-reported)" was converted into two dichotomous variables – "Employment full-time and part-time or not" and "Graduate or Professional school full-time or

part-time or not." Secondly, the variable "Publication Status" was also converted to three dichotomous variables. These were "One or more journal articles published or not," "One or more journal articles and books submitted or not" and "Uncertain and will not publish or not." Thirdly, the original variable "Participation in Conferences" was converted to "Whether or not the student participated in one or more conferences".

The bivariate correlations using Person product moment correlations were examined using the perceived work readiness as the dependent variable with all the independent variables. This result is presented in Table 12. These correlations showed that 10 out of the 13 correlations were significant. The variable with the highest correlation to the perceived work readiness score was access to faculty expertise ($r = 0.273$, $p = < 0.001$) and followed by satisfaction with career center ($r = 0.270$, $p = < 0.001$.

Next, the researcher checked for multicollinearity. The Tolerance values and the variance inflation factor (VIF) were examined for excessive collinearity. The VIF values in this analysis ranged from 1.017 to 3.493. The tolerance values ranged from 0.286 to 0.983. These values according to Hair's et al. (2006) cut off tolerance value of less than 0.10 and VIF value above 10 were met, hence no excessive multicollinearity was present in this data. The Normal probability plot (P-P) of the regression standardized residuals showed that the data were approximately normal (Figure 6). The scatterplot of the residuals also showed that the residuals were rectangularly distributed and almost all the scores were concentrated in the center (Figure 7). According to Tabachnick & Fidell (2007), when the standardized residuals are more than 3.3 or less than -3.3, this could be an indication of outliers.

Table 12

Relationship between selected characteristics and perceived work readiness of graduate program completers in a Research University (RU/VH) in the Southeastern Region of the United States

Variable	r	p
Access to faculty expertise	0.273	< 0.001
Satisfaction with career center	0.270	< 0.001
Access to facilities	0.164	< 0.001
One or more journal articles and books submitted or not	0.142	0.005
Uncertain and will not published or not	-0.108	0.032
Whether or not the student had an Assistantship	0.089	0.006
Whether or not US citizen	-0.089	0.006
Whether or not the student had an Internship	-0.086	0.007
Employment full-time and part-time or not	0.085	0.008
Graduate level (MS or PhD)	-0.073	0.024
Whether or not the student participated in conferences	-0.034	0.286
Graduate or Professional school full-time and part-time or not	-0.029	0.363
One or more journal articles published or not	0.002	0.969
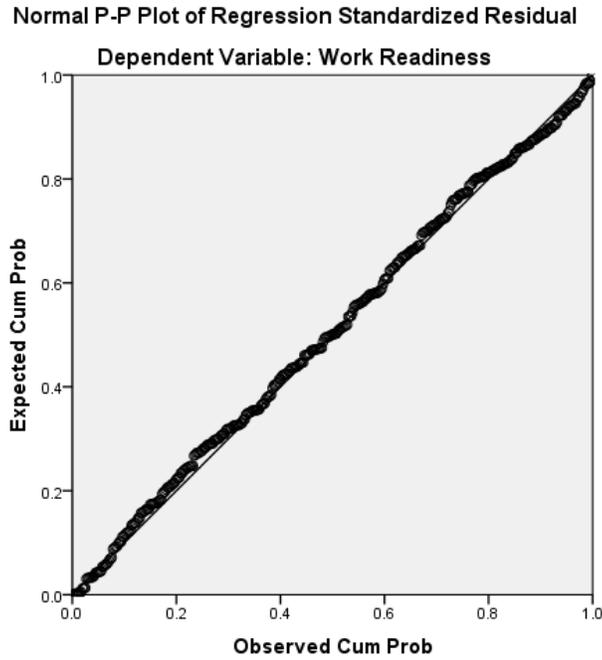
Figure 6. Normal probability plot (P-P) of the regression standardized residuals.
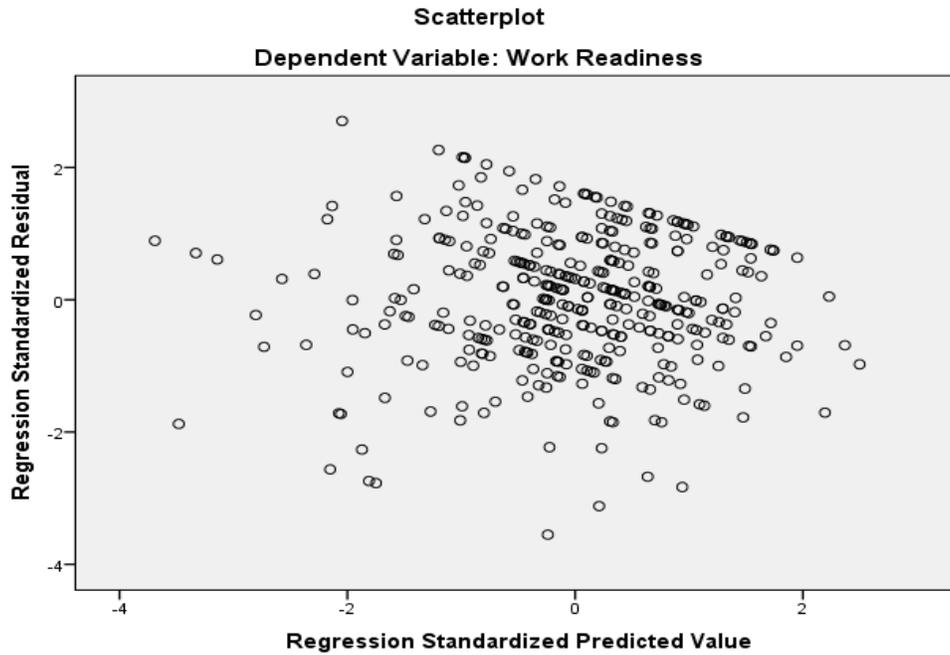
Figure 7. Scatterplot of the residuals.

The hierarchical regression analysis results with perceived work readiness as the dependent variable is shown in Table 13.

Table 13
Summary of hierarchical regression analysis for variables predicting perceived work readiness of graduate program completers in a Research University (RU/VH) in the Southeastern Region of the United States

Variable	R	R^2	R^2 Change	B	SE	β	t
Step 1	0.067	0.004	0.004				
Whether or not US citizen				-0.093	0.091	-0.053	-1.020
Graduate level (MS or PhD)				0.009	0.090	0.006	0.105
Graduate or Professional school full-time and part-time or not				-0.079	0.119	-0.034	-0.666
Whether or not the student participated in conferences				0.018	0.093	0.010	0.190
Step 2	0.419	0.175	0.171				
Whether or not US citizen				-0.083	0.083	-0.047	-0.995
Graduate level (MS or PhD)				0.009	0.082	0.005	0.109
Graduate or Professional school full-time and part-time or not				-0.063	0.108	-0.027	-0.583
Whether or not the student participated in conferences				0.094	0.087	0.054	1.086
Access to faculty expertise				0.227	0.043	0.295	5.255***
Satisfaction with career center				0.255	0.045	0.270	5.669***
Access to facilities				-0.026	0.043	-0.034	-0.609

(Table 13 continued)

Variable	R	R^2	R^2 Change	*B*	*SE*	*β*	*t*
Step 3	0.465	0.216	0.041				
Whether or not US citizen				-0.082	0.085	-0.046	-0.964
Graduate level (MS or PhD)				0.009	0.088	0.005	0.100
Graduate or Professional school full-time and part-time or not				0.191	0.197	0.083	0.971
Whether or not the student participated in conferences				0.031	0.090	0.018	0.349
Access to faculty expertise				0.226	0.043	0.294	5.304***
Satisfaction with career center				0.254	0.044	0.269	5.738***
Access to facilities				-0.005	0.042	-0.007	-0.129
Employment full-time and part-time or not				0.273	0.176	0.132	1.554
Whether or not the student had an Internship				0.073	0.106	0.032	0.692
Whether or not the student had an Assistantship				0.029	0.107	0.013	0.268
One or more journal articles published or not				0.120	0.100	0.067	1.203
One or more journal articles and books submitted or not				0.449	0.110	0.203	4.086***

Note. N= 391. Statistical Significance: ***$p < 0.00$

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During the first step of the hierarchical regression, four predictors were entered: 'Whether or not US citizen,' 'Graduate level (MS or PhD),' 'Graduate or Professional school fulltime and part time or not,' and 'Whether or not the student participated in conferences.' This model was not significant (F (4, 386) = 0.434; p = .784. This model however explained 0.4% of the variance in perceived work readiness of graduate program completers. After the following predictors were entered in step two ('Access to faculty expertise,' 'Satisfaction with career center,' 'Access to facilities'); the model as a whole explained 17.5% of the variance in perceived work readiness (F (7, 383) = 11.641; $p < 0.001$). The entry of the variables ('Access to faculty expertise,' 'Satisfaction with career center,' 'Access to facilities') in step two explained an additional 17.1% after controlling for the demographic characteristics ('Whether or not US citizen,' 'Graduate level (MS or PhD),' 'Graduate or Professional school full-time and part-time or not,' and 'Whether or not the student participated in conferences') (R^2 Change = 0.171; F (3, 383) = 26.469; $p < 0.001$). In step three, the work integrated variables were added to the model ('Employment fulltime and part time or not,' 'Whether or not the student had an Internship,' 'Whether or not the student had an Assistantship,' 'One or more journal articles published or not,' 'One or more journal articles and books submitted or not,' 'Uncertain and will not publish or not,') and the model as a whole explained 21.6% of the variance in perceived work readiness of graduate program completers (F (12, 378) = 8.687; $p < 0.001$. The entry of these last variables in step three explained an additional 4.1% after controlling for both the demographic variables and the University related variables (R^2 Change = 0.041 ; F (5, 378) = 3.929; p = .002). In the final model of the hierarchical regression, one variable 'Uncertain and will not publish or not,' was excluded from the model. In addition, three out of the 12 predictors were statistically significant, with Access to faculty expertise having a higher Beta value (β =

0.294, $p < 0.001$) than Satisfaction with career center ($\beta = 0.269$, $p < 0.001$) and One or more journal articles and books submitted or not ($\beta = 0.203$, $p < 0.001$).

CHAPTER 5: DISCUSSION AND CONCLUSION

Summary of Purpose and Objectives

The primary purpose of this study was to investigate perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States. The dependent variable in this study was perceived work readiness.

The following were the guiding objectives throughout this study:

1. To describe graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States on the following personal and academic characteristics:

    a) Whether or not US citizen

    b) Most likely activity after graduation (Self-reported)

    c) Whether or not the student had an Internship

    d) Whether or not the student had an Assistantship

    e) Publication Status

    f) Participation in Conferences

    g) Graduate level (MS or PhD)

    h) Whether thesis or non-thesis student (MS only)

2. To determine the perceived work readiness among graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States as measured by responses to selected items on a Graduating Student Survey.

3. To determine if a relationship exists between perceived work readiness among graduate program completers at a Research University (RU/VH) in Southeastern Region of the United States and the following personal and academic characteristics:

    a) Whether or not US citizen

    b) Most likely activity after graduation (Self-reported)

    c) Whether or not the student had an Internship

    d) Whether or not the student had an Assistantship

    e) Publication Status

    f) Participation in Conferences

    g) Graduate level (MS or PhD)

    h) Whether thesis or non-thesis student (MS only)

4. To determine the perceptions held by graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States regarding the University's performance in preparing them for the workforce as measured by responses to selected items on a Graduating Student Survey.

5. To determine if a model exists explaining a significant portion of the variance in the perceived work readiness of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States from the following characteristics:

    a) Whether or not US citizen

    b) Most likely activity after graduation (Self-reported)

    c) Whether or not the student had an Internship

    d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Access to faculty expertise

i) Access to facilities

j) Satisfaction with career center

Summary of Methodology

In this study, the target population was graduate program completers at Research Universities (RU/VH) in the Southeastern Region of the United States. The accessible population was graduate program completers at one Research University (RU/VH) in the Southeastern Region of the United States. The sample data used in this study were 967 graduate program completers who completed the Graduating Student Survey in the year 2014. The Graduating Student Survey was administered by the career center of the Research University to all graduate program completers every graduating semester. The survey contained personal, demographic and academic characteristics of the graduate program completers (the independent variables) as well as 6 Likert-type scale items that measured perceived work readiness (the dependent variable). Approval for this study was sought and received from the Institutional Review Board of the Research University. After the data were collected using a computerized recording form, the data were coded into numeric format, cleaned and analyzed in the SPSS program.

The analysis was conducted based on the objectives outlined in the study. Objective one was descriptive, hence, means and percentages were used to describe the graduate program completers on the various personal and academic characteristics. Objective two was accomplished using means and standard deviations to describe the perceived work readiness of

the graduate program completers. Objective three involved determining the relationships between the variables. Therefore, the most appropriate test that offered meaningful interpretations were utilized such as t-test and ANOVA to compare the groups in one variable and on the relevant dependent variable. The data analysis used to accomplish Objective four was frequencies and percentages of the perceptions held by graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States on the University's performance in preparing them for the workforce. The last objective was accomplished by the use of a hierarchical regression to determine if a model exists that explained a significant portion of the variance in the perceived work readiness. A three-step entry of the variables was adopted based on the natural clusters of the independent variables in this current study.

Summary of Major Findings

The discussions of the major findings in this study are presented by the objectives outlined in the study.

Objective One

1. To describe graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States on the following personal and academic characteristics:

    a) Whether or not US citizen

    b) Most likely activity after graduation (Self-reported)

    c) Whether or not the student had an Internship

    d) Whether or not the student had an Assistantship

    e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Whether thesis or non-thesis student (MS only)

The results showed that, of the 967 graduate program completers, the majority were US citizens (n = 746, 77.3%). The international graduate program completers represented less than a third as many as the US citizens.

In terms of the most likely activity after graduation, graduate program completers' top most likely activity after graduation was 'Paid Employment full-time.' This was highest for both master's (n = 609, 85.7%) and doctoral (n = 174, 68%) students. In addition, more of the doctoral graduates indicated that they (n = 59, 23%) intended to continue with Graduate or Professional school than the master's graduates (n = 47, 6.6%).

When it comes to having an internship, graduate program completers who did not participate in any form of internship were more than twice (n = 662, 68.6%) the number who had an internship (n = 303, 31.4%) during their graduate program. On the other hand, the majority of the graduate program completers had an assistantship (n = 543, 56.6%) compared to those who did not (n = 415, 43.4%).

Publication status was determined for only the 395 graduate program completers who are required to complete a thesis or dissertation. The results showed an almost even split between those who have either published one or more articles or submitted one or more articles (n = 199, 50.4%) and those who will not publish or are uncertain about publication (n = 196, 49.6%).

Of the 959 graduate program completers who responded to the participation in conferences question, the majority (n = 525, 54.7%) did not participate in any type of conference while in their graduate program.

The data showed that of the 967 graduate program completers in this study, the majority of students were master's students (n = 711, 73.5%) with the remainder being doctoral students (n = 256, 26.5%). Out of these master's graduate program completers, most of them (n = 532, 75.6%) were non-thesis students compared to the thesis students (n = 172, 24.4%).

Objective Two

This objective determined the perceived work readiness among the graduate program completers as measured by responses to six items in the graduating survey. The item that was rated highest was Ability to work with others (M = 3.99, SD = 0.96) and the item that was rated lowest was Relating knowledge to daily life (M =3.77, SD = 0.97). A factor analysis results also showed the presence of one factor (perceived work readiness) on which all the six variables loaded and this factor explained 69.5% of the total variance. Overall, the results showed graduate program completers mean score of 3.89 (SD = 0.82) with a low of 1.00 to a high of 5.00.

Objective Three

Objective three was to determine if a relationship exists between perceived work readiness among graduate program completers at a Research University (RU/VH) in Southeastern Region of the United States and the personal and academic characteristics.

Whether or not US citizen. The relationship between this variable (whether or not US citizen) and perceived work readiness was such that US citizen graduate program completers had a higher self-perception of their work readiness than Non-US citizens counterparts ($t_{(963)}$ = 2.77, p = .006, d = 0.2).

Most likely activity after graduation**.** In comparing the groups within this variable on their perceived work readiness, the results showed that graduate program completers who indicated that their most likely activity after graduation was 'Employment full-time paid' which

had the highest mean score on their perceived work readiness. The group with the lowest

perceived work readiness score was those within the 'Voluntary activity.' These differences were

however not significant (F (3, 924) = 1.24, p = .30).

Whether or not the student had an Internship. There was a significant difference showing

that graduate program completers who had an internship had significantly higher perceived work

readiness score than those who did not have an internship ($t_{(963)}$ = 2.69, p = .007, d = 0.2).

Whether or not the student had an Assistantship. Also, graduate program completers who

had an assistantship were significantly different from those who did not have an assistantship.

Those having an assistantship had significantly higher perceived work readiness score than those

who did not have an assistantship ($t_{(957)}$ = 2.76, p = .006, d = 0.17).

Publication Status. An ANOVA and a post hoc analysis using Tukey's HSD showed that

perceived work readiness of graduate program completers was significantly higher for those who

reported 'more than one refereed journal paper submitted' than for those who reported 'will not

publish' (p = .01).

Participation in Conferences. Of all the graduate program completers who participated in

one, two or three or more conferences and those who did not participate in any conferences, the

results showed that there is no significant difference in terms of their perceived work readiness.

Graduate level (MS or PhD). The results also showed that graduate level influences

perceived work readiness. In this study, the results showed that master's graduate program

completers had significantly higher perceived work readiness score than doctoral graduate

program completers ($t_{(965)}$ = 2.27, p = .024, d = 0.2).

Whether thesis or non-thesis student (MS only). When master's graduate program

completers were compared, the results showed that graduate program completers who were

thesis students were significantly different from graduate program completers who were non-thesis students. This difference was such that graduate program completers who were thesis students tend to have significantly lower perceived work readiness score than graduate program completers who were non-thesis students ($t_{(702)} = 3.01$, $p = .003$, $d = 0.26$).

Objective Four

Objective four was to determine the perceptions held by graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States regarding the University's performance in preparing them for the workforce as measured by responses to these items; 'Access to Facilities,' 'Access to faculty expertise,' and 'Satisfaction with career center.' In terms of having access to facilities, a majority of graduate program completers agree (37.6%, n = 361) and strongly agree (31.4%, n = 301) that access to facilities was appropriate for their graduate education at the university. Having access to faculty expertise was also ranked highly with 36.3 % (n = 348) agreeing and 36.1% (n = 346) strongly agreeing that access to faculty expertise was appropriate to their graduate education. Lastly, graduate program completers also ranked highly their satisfaction with the career center (somewhat satisfied (13.5%, n = 130) and satisfied (13.6%, n = 131). However, a majority of the graduate program completers (63%, n = 606) had no opinion/no basis to judge their satisfaction with the career center.

Objective Five

Objective five was to determine if a model exists explaining a significant portion of the variance in the perceived work readiness of graduate program completers at a Research University (RU/VH) in the Southeastern Region of the United States from the following characteristics:

a) Whether or not US citizen

b) Most likely activity after graduation (Self-reported)

c) Whether or not the student had an Internship

d) Whether or not the student had an Assistantship

e) Publication Status

f) Participation in Conferences

g) Graduate level (MS or PhD)

h) Access to faculty expertise

i) Access to facilities

j) Satisfaction with career center

These characteristics were prepared and grouped into three natural clusters of 13 variables that offered logical and theoretical relevance to explaining the variance in the dependent variable. The bivariate correlations showed 10 out of 13 correlations to be significant, with 'having access to faculty expertise as being appropriate for graduate education' having the highest correlation with perceived work readiness. The three step hierarchical regression results showed that the demographic variables in the first step only explained a small variance (0.4%), producing a non-significant model. However, in step two, when university-related variables were entered into the model, the model as a whole gained an additional 17.1% variance explanation after controlling for the demographic variables. Finally in step three, when the work-related variables were entered into the model, an additional 4.1% variance in perceived work readiness was explained when both demographic and university-related variables were controlled. As a whole, all of the 12 retained variables explained 21.6% of the variance in perceived work readiness of graduate program completers. In the final model, three of the 12 variables were

statistically significant, with 'Access to faculty expertise' being the highest predictor, followed by 'Satisfaction with career center' and 'One or more journal article and books submitted or not.' One variable (Uncertain and will not publish or not) was not included in the final model.

Conclusions, Implications and Recommendations

The conclusions and discussions of results was done in the wider context of the literature on work readiness or the broader field of workforce readiness and in relation to the major findings in this study.

Conclusion One

US citizens have a higher self-perception of work readiness.

This conclusion was based on the result of the study in objective two that US citizen graduate program completers tended to have a higher perception of themselves as ready for the world of work than their international counterparts. Also, the descriptive results showed that US citizens accounted for more than three times the size of non-US citizens. Even though the literature on work readiness looking at citizenship influences is scarce, this result in the broader context tends to be consistent with self-efficacy and cross-cultural reviews. Klassen (2004), for instance, reviewed 20 studies and found that self-efficacy beliefs are lower for non-western cultural groups. Whereas this study's variable 'Whether or not US citizen' cannot be equated with western and non-western dichotomy, or the individualistic and collectivism divide, Klassen (2004) indicated that self-efficacy beliefs do not always predict performance of all cultural groups, although it is a strong predictor of performance in western cultures. That is to say that perceiving oneself as ready for the world of work does not automatically translate to performance on the job across all cultures. In addition, however, when training is tailored to individual's self-worth, both efficacy beliefs and performance tend to increase (Klassen, 2004).

The researcher recommends exploring this finding in-depth in future studies to examine, perhaps qualitatively, what perception of work readiness means to different cultural groups. Specifically, different cultural groups or citizens and international students' perception of work readiness can be investigated to determine whether these groups have the same interpretation of work readiness as well as the possibility of work readiness skills among these cultural groups. Secondly, the researcher recommends that career and counselling services within universities tailor self-concept and self-efficacy building workshops to different cultural groups. Specialized workshops based on these cultural differences could incorporate these findings so that cultural group perceptions of work readiness could be addressed.

Conclusion Two

Most likely activity after graduation depends on an individual's graduate level.

This conclusion that the most likely activity of graduate program completers depends on their graduate level is based on the findings that nearly all master's graduate program completers (n = 609, 85.7%) indicated employment full-time as their most likely activity compared to 68% (n = 174) of doctoral graduate program completers. Strikingly, however, nearly a quarter (23%, n = 59) of doctoral students planned to stay or continue in graduate school or professional school. Master's graduate program completers' priority seems to be getting employment in organizations outside academia, hence only 6.6% (n = 47) planned on pursuing Ph.D. or graduate professional degrees. These findings are also supported by the proportion of master's graduate program completers that followed a non-thesis option. More than three-quarters (75.6%, n = 532) of master's graduate program completers have not engaged in writing a thesis. Writing of a thesis at the master's level can be a valuable preparation towards academic and scholarly activities in academia and even in some non-academic settings. Early identification of a graduate student's

career orientation could be a vital piece of the puzzle to tailor internships and work integrated learning to these students, and to avoid offering non-thesis options to students who would benefit more from writing a thesis. Similarly, mandating an internship with organizations outside academia to non-thesis, non-academic employment bound graduate students in lieu of a compulsory thesis option is recommended.

<div align="center">**Conclusion Three**</div>

Having an Internship tends to positively influence perceived work readiness.

This conclusion is based on the finding that graduate program completers who had an Internship tended to be different from those who did not have an Internship. Those who had an Internship perceived themselves more highly ready for work than those who did not have an Internship. In addition, having an Internship was a strong predictor in the regression model. These results are consistent with Problem-based learning (PBL) studies. Problem-based learning, which is a form of active learning, originated in medical studies. Students through solving related problems are able to develop flexible knowledge, problem solving skills, effective collaboration skills and intrinsic motivation (Hmelo-Silver, 2004). Having an Internship during a graduate program that mandates some form of work usually outside the university exposes the graduate students to the real world of work. This type of learning enables the student to develop teamwork, communication, research, critical analysis and solving of real world problems (Duch et al., 2001). It also offers graduate students the opportunity to connect classroom learning experiences to the real world of work (Boud, 2010). Therefore the researcher recommends that Internship should be incorporated into graduate programs or courses wherever possible. This will enable graduate students to benefit from implementing lessons learned in the classroom to the workplace as well as receiving guidance and hands-on training from both their lecturers and

supervisors of the Internship organizations. In addition, students should seek opportunities for Internship while in their graduate programs and offer to conduct project-based assignments in these organizations. Graduate students can also consider unpaid internships that are directly related to their programs of study, for their long-term benefits such as the possibility for job placements in those organizations upon graduation.

<p style="text-align:center">Conclusion Four</p>

Having an Assistantship tends to positively influence perceived work readiness.

This study results showed that graduate program completers who had an Assistantship tended to have higher perceived work readiness than those graduate program completers who did not have an Assistantship. Also, this variable was retained in the final regression model as a predictor for perceived work readiness. Gardner (2009) indicated that close to 40% of doctoral students do not finish their programs. One of the stated reasons is the inadequate financial resources (Kim & Otts, 2010). Having an Assistantship therefore aids retention of graduate students to ultimately complete their programs of study. Kim and Otts (2010) also noted that Assistantships that provide opportunities for students to engage with their faculty in the form of research projects, grant-writing and teaching activities have contributed the most to graduate retention. In addition, Nettles and Millet (2006) asserted that research and teaching Assistantships unlike fellowships prepare graduate students for professional careers, because students on Assistantships actually get integrated into the profession and Assistantships serve as an apprenticeship arena for fledgling researchers and scholars to be developed. This could imply that, all things being equal, graduate program completers who have received these interactions from their faculty have witnessed the academic world of work unlike those who do not have teaching or research Assistantships that enables them to be socialized into academia. It is also

possible that those graduates that are close to faculty have witnessed the tenuous parts of the job of faculty such as grading and end of semester's workload and meeting of deadlines. These experiences will no doubt make graduate program completers having an Assistantship to perceive themselves as more work ready. The researcher recommends that colleges and departments allocate resources for more graduate students to have Assistantships. Graduate Assistantship especially in research universities is a win-win for all. Students benefit in terms of retention and completion. Faculty on the other hand will conduct a lot of research, publish articles and books and receive research grants to sustain departments in the face of state's budget cuts to higher education. Assistantships would benefit graduate students better when there is a shared understanding of the roles of all the stakeholders, such that Assistantships should be designed into the curriculum of graduate programs. These experiences will therefore be dependent on graduate student orientations, varying task assignments, rotational faculty assignments and intensive feedback and evaluations. The researcher recommends future research to investigate the various aspects of Assistantships that make the most contribution to work readiness as well as compare graduate program completers on other forms of funding such as Assistantships outside academic departments.

<div align="center">**Conclusion Five**</div>

Graduate program completers scored highest on Teamwork/Collaboration skills of work readiness.

Identifying work readiness skills continues to be an area of interest and research to both employers and researchers. As identified in previous studies especially by the works of Casner-Lotto & Barrington (2006) and Wendler et al., (2012), employers identified these non-cognitive skills as both important but lacking among newly hired graduate students. These skills included oral and written communication, teamwork/collaboration, professionalism/work ethic, and

critical thinking/problem solving. These skills were identified across organizations and sectors (Ezzo, 2013). Results of this study showed that contrary to the perceptions of employers, graduate program completers rated themselves highest on these abilities – the ability to work with others and collaboration with others. This conclusion is based on the findings that Ability to work with others ($M = 3.99$, $SD = 0.96$) and Collaboration with others ($M = 3.92$, $SD = 0.97$) received the highest scores. The factor loadings of these items were also very high (Ability to work with others had a factor loading of 0.840 and Collaboration with others had the highest factor loading of 0.865) meaning that these observable items can be used to describe the latent factor (perceived work readiness) as shown by the results in this study. The researcher recommends future research focus on comparing different graduate programs on these skills to identify graduate programs that are building Teamwork/Collaboration skills. In addition, the researcher recommends qualitative follow-up study to identify graduate program completers who rated these skills high to identify which aspects of their graduate programs contributed the most to the development of these skills.

Conclusion Six

Publication influences work readiness more so than attending conferences.

This conclusion was based on the findings in this study that perceived work readiness was higher for graduate program completers who indicated more than one refereed journal paper submitted than those who reported will not publish. Even though there were no other significant differences found between the other groups within the 'Publication' variable, the results showed that the group 'will not publish' was certainly different. In addition, the variable 'Uncertain and will not publish' was the only publication variable that was excluded from the final regression model. In contrast, however, participation in one, two or more conferences or not participating in

conferences does not have an impact on how graduate program completers perceive themselves on work readiness. It is important to point out that both publication of journal articles and participation in conferences can occur simultaneously and it might be difficult to separate them. Graduate students usually attend conferences to present papers and research that may end up as a publication in a journal. The Graduate school in most Research Universities for instance usually funds (partially) those who are presenting a research paper at those conferences instead of being mere attendees. The researcher lauds this policy. However, based on the findings in this current study, merely participating in conferences, adds little if at all, to preparing graduate students for the world of work. Therefore the researcher recommends that graduate students should be encouraged to go through the process of submitting one or more refereed journal articles prior to graduating. The graduate school, colleges and departments in Research Universities should pay publication costs and adopt recognition of publications of graduate students through monetary or non-monetary awards such as plaques, citations and 'wall of graduate publishers' in the lobby of graduate schools.

Conclusion Seven

Access to faculty expertise tends to influence perceived work readiness.

This conclusion is based on the fact that in the regression analysis, access to faculty as a variable in this study had the highest Beta value ($\beta = 0.294$, $p < 0.001$). This meant that access to faculty had the greatest effect in predicting perceived work readiness among graduate program completers. In addition, results in objective four showed that only 11.6% (n = 111) of graduate program completers rated negatively, that access to faculty expertise was appropriate for their graduate education. This current study could not account for what exactly access to faculty expertise meant to the graduate program completers. The researcher recommends follow-up

studies to determine various aspects of access to faculty. Previous studies on faculty and student interaction however provides context for the conclusion in this study. Komarraju, et al. (2010) in their research concluded that when students interact with faculty in a variety of ways, it leads to better academic achievement, especially outside of the classroom. This finding is also consistent with earlier findings by Lundberg and Schreiner (2004) that better learning outcomes of students can be traced to students who had positive interactions with their faculty. The implications of these findings are that faculty expertise and presence is not only valuable to students but builds on the self-efficacy of students. Faculty in most cultures are regarded in high esteem, and students who have the safety of faculty backing achieve more in many areas such as publication, presentation of research papers and teaching.

The discussion on faculty mentoring or advising in higher education is not new. The literature on faculty mentorship has established that graduate students especially Ph.D. students who have mentors have been significantly more successful in publications and presentations than non-mentored graduate students (Titus & Ballou, 2013). In their study involving 3, 500 scientists, university faculty in that study preferred to be viewed as advisors rather than mentors even though they did not see a vast difference between the two roles. These mixed results on how faculty perceive themselves in relation to their role with graduate students can be attributed to the varying experiences that graduate students have with different faculty, some faculty assuming more of a mentor role than others. The conclusion however was that, it is what faculty do that matters (Titus & Ballou, 2013). Therefore, graduate student success is dependent on the frequency and intensity of these interactions with faculty. The researcher recommends that departments and colleges encourage and facilitate frequent interactions of graduate students with

faculty. The researcher also recommends that University policies allocate sizeable portion of faculty workload to advising and mentoring graduate students.

Conclusion Eight

Satisfaction with the career center is correlated with perceived work readiness.

This conclusion was based on the finding that graduate program completers who were more satisfied with the services of the career center tended to have higher perceptions of themselves as ready for work. Satisfaction with career center was also a significant predictor in the regression model having the second highest Beta estimate ($\beta = 0.269$, $p < 0.001$). This may indicate that graduate program completers who have used the plethora of services offered by the career center such as individualized career counseling, internship job search services, networking workshops, resume and CV preparations, mock interviewing workshops and job fairs; are satisfied with the quality of services provided at these facilities. Those who were not satisfied with the services of the career center were less than 10% (n = 95). This study did not differentiate between those who have not used the services of the career center and those who used it but were not satisfied. These current findings were, however, consistent with a nationwide study by the National Association of Colleges and Employers -NACE (2009). In that study involving more than 840 colleges and Universities, students' perception of how helpful their career center had been in preparing them for getting a job was dependent upon the frequency of use of the career center's services. Specifically, the more a student used the services of the career center, the more helpful they perceived the career center. In addition, students who used the services of the career center were significantly more successful in landing and keeping a job than those who did not use the services or used the services to a minimum (NACE, 2009). Even though the focus on that study was on employment or getting a job, not necessarily on

readiness for work, there are some overlaps, such as identification of the work tasks and the skills needed for a job position. Future studies should expand on this distinction to include graduate program completers who have used the services and those who have not used the services in relation to their work readiness. In addition, different services that are provided by the career center can be measured, to know which services directly influence perceived work readiness. Gorden (2006) asserted that "all students need career advising" (p. 5). However, considering the changing needs of students and with technology advancement, the researcher recommends integration of career services at college and departmental levels, such as academic mentors and advisors incorporated in departmental meetings with heads of departments mandating students to attend such meetings. Furthermore, work readiness skills demanded by sectors and departments as well as talk sessions with managers of related industries can be integrated into such meetings so that career counselors can tailor services to students and to continue this process at their facilities.

Summary

Are graduate program completers work ready?

As a result of changes in the world of work, especially positions in organizations that are now a mix of different job tasks, there is increasing demand for employees with specific skills beyond technical and academic skills. These new work tasks as well as the skills needed to perform them, according to Acemoglu and Autor (2011) are increasingly becoming a better predictor for landing a job and salary increases than educational level or occupational title. Apart from technical skills and job-specific skills, organizations are calling for graduate program completers to possess generic skills and attributes that go beyond industry-specific competencies (Cabellero and Walker, 2010). Although these skills have been labeled differently and are still in

developmental stages as a construct, these skills have been labelled work readiness skills. A work ready graduate program completer would thus be perceived as possessing attitudes and attributes that will enable them to be prepared for success in the workforce (Cabellero and Walker, 2010). Many researchers who have preoccupied themselves to identify these skills (see Table 1) have concluded that work readiness is a multidimensional construct. Few studies have, however, gone beyond identification of work readiness skills to identifying relationships between variables that influence whether or not graduate program completers perceive themselves as work ready or not. Some of the studies, however, focus on employers' perception of newly hired graduate program completers. This study therefore made an attempt to explore these work readiness skills as well as contributing variables that influence this perception among graduate program completers in research universities in the southeastern region of the United States.

Examination of the findings in this study showed that graduate program completers have indicated that their graduate programs have prepared them with the work readiness skills identified in this study. While their ratings were high on all the six skills, ability to work with others and collaboration with others received the highest ratings (see objective two for details). Taking the mean score and the variability of the score, as well as the range, graduate program completers' perceived overall work readiness score was above average, but far from the highest score possible.

Contributing factors to graduate program completers' self-perceived work readiness as identified in this study were grouped into three natural clusters (demographic variables, university related variables, and work-related variables). The demographic variables did not contribute a lot of explanation to the graduate program completers' perceived work readiness. Both the university-related variables and the work-related variables were the most contributing

cluster of variables to the perceived work readiness of the graduate program completers. Hence, variables such as 'having an Internship,' 'having an Assistantship,' 'having access to faculty expertise,' 'satisfaction with career center,' 'submitting or publishing articles' were contributing factors to perceived work readiness among graduate program completers in this study.

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APPENDIX A: GRADUATING STUDENT SURVEY

Graduating Student Survey

Results of the Graduating Student Survey are reported by the LSU Olinde Career Center in aggregate form only. Information identifiable to you will not be released publicly; data will only be used for purposes officially sanctioned by the University. Much of this information is used for University assessment, accreditation, and ranking purposes.

What is your senior college/school? (Graduate students, please select the college/school associated with your program)

Agriculture, College of; Art and Design, College of; Business, E.J. Ourso College of; Coast and Environment, School of the; Engineering, College of; Human Sciences and Education, College of; Humanities and Social Sciences, College of; Mass Communication, Manship School of; Music and Dramatic Arts, College of; Science, College of; Veterinary Medicine, School of

Required answers: 0   Allowed answers: 1

Q2 What is your degree level?

Bachelor; Master; Doctorate; Certificate

Required answers: 1   Allowed answers: 1

What is MOST LIKELY to be your PRINCIPAL activity upon graduation?

Employment, full-time paid; Employment, part-time paid; Graduate or professional school, full time; Graduate or professional school, part time; Additional undergraduate coursework; Military service; Volunteer activity (e.g., Peace Corps); Starting or raising a family; Other (please specify)

Required answers: 1   Allowed answers: 1

Q7 What is your ACTUAL current situation (e.g., you may have answered "Employment, full-time paid" for the previous question but may ACTUALLY be in the process of interviewing right now) upon graduation?

Employed full time (on average 30 hours or more per week); Employed part time (on average less than 30 hours per week); Participating in a volunteer or service program (e.g., Peace Corps); Serving in the U.S. military; Enrolled in a program of continuing education; Seeking employment; Planning to continue education but not yet enrolled; Not seeking employment or continuing education at this time

Required answers: 1   Allowed answers: 1

Q8 Did you have an internship or co-op?

Yes; No

Required answers: 0   Allowed answers: 1

Q9 What is your citizenship?

U.S.; Canada; Other foreign citizen

Required answers: 0   Allowed answers: 1

Display if Q9='U.S.'

What is your home state?

Selection list is provided here

Required answers: 1   Allowed answers: 1

Display if Q7='Employed full time (on average 30 hours or more per week)' OR Q7='Employed part time (on average less than 30 hours per week)'

Is this a position you held prior to graduating or is this a new employment?

Held prior to graduation; New employment

Required answers: 1　　　Allowed answers: 1

Please select the category which BEST describes your employment:

Employed as an entrepreneur; Employed in a temporary/contract work

assignment; Employed freelance; Employed in a postgraduate internship or

fellowship; Employed in all other work categories

Required answers: 1　　　Allowed answers: 1

Which of the following best describes your employer type?

For-profit; Non-profit (not including government); Government; Self-employed;

Other (please specify)

Required answers: 0　　　Allowed answers: 1

How closely is your job related to your academic major?

Barely or not related, and I would prefer that it be related; Barely or not related,

but that is fine with me; Somewhat related; Directly related

Required answers: 0　　　Allowed answers: 1

How would you characterize your job in relation to your education level?

It is below my level of education.; It is at my level of education.; It is above my

level of education.

Required answers: 0　　　Allowed answers: 1

What was the source(s) of your job lead? (Check all that apply)

Academic department; Career Services staff member; Careers2Geaux; Co-op, not

obtained through Career Services; Co-op, obtained through Career Services;

Direct application to employer (no job lead); Employment agency; Event(s)

hosted by Career Services; Internet; Internship, not obtained through Career

Services; Internship, obtained through Career Services; Newspaper; Personal

contact; Previous employment while a student (not an internship or a co-op); Print

or online resource(s) offered by Career Services (other than Careers2Geaux);

Professional association; Other (please specify)

Required answers: 0   Allowed answers: 17

Display if Q7='Employed full time (on average 30 hours or more per week)'

Please provide the following information regarding your employment: (Note: All

compensation data provided will be kept confidential and reported in aggregate form

only)

Name of employer:

Job title:

Job city and state, and country, if not in United States:

If employed full-time, base annualized salary in U.S. dollars:

Other guaranteed compensation:

Relocation package:

Guaranteed signing bonus amount in U.S. dollars, if you are receiving one:

Guaranteed first-year bonus amount in U.S. dollars, if you are receiving one:

Required answers: 0   Allowed answers: 8

Display if Q7='Employed part time (on average less than 30 hours per week)'

Please provide the following information regarding your employment:

Name of employer: [Textbox]

Job title: [Textbox]

Job city and state, and country, if not in United States: [Textbox]

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Display if Q7='Employed full time (on average 30 hours or more per week)'

Please indicate the importance of the following in regards to your reasoning for accepting this position:

These selections apply for the following items:

    Essential; Very important; Somewhat important; Not important

Required answers: 1   Allowed answers: 1

Job content

Creative and challenging work

Opportunity for career advancement

Fit with culture/environment

One of my top choices

Opportunity to make an impact

Fit with my experience and skills

Reputation of employer

Training/education opportunities

Location close to home

Location far from home

Job flexibility and work life balance

Best opportunity I could find at this time

Salary

Supervision and colleagues

Job security

First job offered

Benefits

Ability to meet my expected student loan/education debt payments

Employer was willing to sponsor non-US citizen

Didn't get into graduate/professional school

Display if Q7='Enrolled in a program of continuing education'

For each of the following: Required answers: 0   Allowed answers: 1

At which university will you be enrolled?

What is the location (city/state and, if outside the U.S., country) of this program?

What will be your program of study?

What degree are you pursuing?

Display if Q7='Serving in the U.S. military'

Please provide the following information about your assignment:

In what branch of the military will you be serving?

What rank will you have?

What will be your base annualized salary in U.S. dollars? (Note: Salaries provided will be kept confidential and reported in aggregate form only)

Required answers: 0   Allowed answers: 3

Display if Q7='Participating in a volunteer or service program (e.g., Peace Corps)'

Please provide the following information about your volunteer or service program assignment:

Organization:

Assignment location (city/state and, if outside the U.S., country)

Role or title

Display if Q7='Employed full time (on average 30 hours or more per week)' OR Q7='Employed part time (on average less than 30 hours per week)' OR Q7='Seeking employment' OR Q7='Serving in the U.S. military'

These selections apply for the following items:

Strongly disagree; Disagree; Mixed feelings; Agree; Strongly agree

Required answers: 1   Allowed answers: 1

During my search for employment, I had/have had trouble with:

Finding a job in my chosen profession

Lack of experience

Lack of job skills

Not enough pay

Finding work where I wanted to live

Finding an acceptable work schedule, time-wise

Support from family and friends

Lack of professional attire

Lack of reliable transportation

Lack of adequate childcare

Internships/Co-ops

Display if Q8='Yes'

Q60 How many internships did you have?

1; 2; 3 or more

The following question set appears once, twice, or three times, depending on the response to Q60:

Please answer the following questions regarding your internship:

Name of employer:

When did you complete this opportunity? (Note: Semester and year)

City/State:

Supervisor's name: (Optional)

Supervisor's e-mail: (Optional)

Your job title:

Number of hours worked:

Did you receive academic credit?

Yes (for what course?); No

Was your internship paid?

Yes; No

Please answer the following regarding your paid internship:

Please provide your monthly salary: (Click here for assistance in converting your wage rate to a monthly salary)

http://www.miniwebtool.com/salary-conversion-calculator/

How many months in duration was your opportunity? (e.g., standard summer = 3 months; standard fall/spring = 4.5 months; please enter a decimal number only (e.g., 1.00))

Display if Q7='Seeking employment'

Have you received a job offer?

Received first job offer by graduation; Did not receive a job offer

Do you have any comments you would like to share about the LSU Olinde Career Center, your

senior college, and/or your university experience?

Yes (please explain); No

May we contact you about your comments?

Yes; No

Display if Q2='Master' OR Q2='Doctorate'

Please indicate with which of the following you had contact during your LSU career:

(Check all that apply)

Graduate Admissions; Graduate Student Services; Graduate Fellowships and

Assistantships; Graduate Student Association

Required answers: 1   Allowed answers: 4

Q98 Are you a thesis/dissertation student?

Yes; No

Required answers: 1   Allowed answers: 1

Display if Q98='Yes'

What is the publication status of your work?

One refereed journal paper published; One refereed journal paper

submitted; More than one refereed journal paper published; More than one

refereed journal paper submitted; Book manuscript submitted; Publication

uncertain; Will not publish

Required answers: 1   Allowed answers: 1

Did your thesis/dissertation include any of the following? (Check all that apply)

One patent application; More than one patent application; No patent application is likely; Request for Restricted Access; Approval of Institutional Review Board; None of the above

Required answers: 1   Allowed answers: 6

How many times did you participate in national academic or professional meetings?

None; One; Two; Three or more

Required answers: 1   Allowed answers: 1

How many times did you participate in regional academic or professional meetings?

None; One; Two; Three or more

Required answers: 1   Allowed answers: 1

Q103 Did you hold an assistantship or fellowship?

Yes; No

Required answers: 1   Allowed answers: 1

Display if Q103='Yes'

What percentage of your household income did your assistantship or fellowship represent?

20% or less; 21 - 40%; 41 - 60%; 61 - 80%; 81 - 100%

Required answers: 1   Allowed answers: 1

What approximate level of personal funding, not including loans, was required per year of graduate studies?

None; Up to $5,000; $5,001 - 10,000; $10,001 - 15,000; $15,001 - 20,000; Greater than $20,000

Required answers: 1   Allowed answers: 1

What is the approximate level of personal loans used per year of graduate studies?

None; Up to $5,000; $5,001 - 10,000; $10,001 - 15,000; $15,001 - 20,000;

Greater than $20,000

Required answers: 1   Allowed answers: 1

What is the approximate level you currently owe in loans used to pay for your graduate

education?

None; Up to $10,000; $10,001 - 20,000; $20,001 - 40,000; $40,001 - 60,000;

Greater than $60,000

Required answers: 1   Allowed answers: 1

Please indicate your level of agreement with the following statements:

Access to laboratory facilities, library collections, studios, and computing was

appropriate for your graduate education.

Strongly disagree; Disagree; Neutral; Agree; Strongly agree

Required answers: 1   Allowed answers: 1

Access to faculty expertise (a graduate advisor, and/or a graduate mentor, and

examination committee) was appropriate for your graduate education.

Strongly disagree; Disagree; Neutral; Agree; Strongly agree

Required answers: 1   Allowed answers: 1

What was the initial reason for your application to the Graduate School at LSU?

Advice of undergraduate mentor

Advice of a relative or friend

Contact with LSU faculty at a professional meeting

Contact with LSU faculty or staff at a graduate school fair

Web pages

Other

Required answers: 1   Allowed answers: 1

What factors influenced your decision to attend LSU for graduate studies? (Check all that

apply)

Discussions with LSU faculty -- program quality

Discussions with current LSU graduate students - peer quality

Campus visit - facilities quality

Financial aid package, including assistantships, fellowships, and scholarships

Personal considerations (proximity to spouse, friends, family)

Required answers: 1   Allowed answers: 5

Q112 Do you speak English as a Second Language?

Yes; No

Required answers: 1   Allowed answers: 1

Display if Q112='Yes'

Please indicate your level of agreement with the following statements:

Your experience with English as a Second Language was a positive one.

Strongly disagree; Disagree; Neutral; Agree; Strongly agree

Required answers: 1   Allowed answers: 1

You had ample opportunities to interact intellectually across disciplines.

Strongly disagree; Disagree; Neutral; Agree; Strongly agree

Required answers: 1   Allowed answers: 1

Student Life and Enrollment

Please rate your level of satisfaction with the LSU Olinde Career Center?

Dissatisfied; Somewhat dissatisfied; No opinion/No basis to judge; Somewhat satisfied;

Satisfied

Required answers: 0   Allowed answers: 1

How helpful were your experiences at LSU in developing the following skills?

These selections apply for the following items:

Extremely helpful; Very helpful; Moderately helpful; Not very helpful; Not

at all

Required answers: 1   Allowed answers: 1

Connecting what you learned to other knowledge, ideas, and experiences

Relate knowledge learned to daily life

Determining your future career

Building meaningful relationships

Collaboration with others

Ability to work with people different from yourself

What would you say was the biggest reason you were successful in completing your degree at

LSU?

Required answers: 0   Allowed answers: 1

What program/service/initiative should LSU provide that it currently does not offer?

Required answers: 0   Allowed answers: 1

If you could do it all over again, would you choose LSU?

Definitely yes; Probably yes; Probably no; Definitely no

Please select the scholarships, fellowships, or assistantships you received while at LSU (Check all that apply):

> Golden Oaks (Tuition and Nonresident Fee Exemption); Tiger Scholars (Nonresident Fee Exemption); LSU Alumni Top 100; Centennial; Chancellor's Alumni; Pelican Promise; National Scholars; Bengal Legacy; TOPS; Teaching Assistantship; Research Assistantship; Service Assistantship; LSU Fellowship; Other Fellowship; Economic Development Assistantship; Flagship Assistantship; Dissertation Year Fellowship; Tuition Waiver only; Non-resident Fee Waiver only; Other (please specify)

> *Required answers: 0   Allowed answers: 20*

Contact Information

Please provide post-graduate contact information. (Please don't use your campus address unless you are continuing on to graduate school.)

> What is your name? (prefix, first, middle, maiden, last, suffix)

> Street:

> City:

> State: Selection list is provided here

> Zip code:

> Country: Selection list is provided here

> Home phone number: (xxx-xxx-xxxx)

> Cell phone number: (xxx-xxx-xxxx)

> Personal e-mail address (not a Tigermail e-mail address):

Would like to be contacted after graduation with notices about job fairs and other career-related events/programming open to LSU alumni at the email address provided above?

Yes; No

Required answers: 0   Allowed answers: 1

Please indicate below if you would like to receive additional information on the following. (Check all that apply)

LSU Alumni Association; Alumni association for your senior college; Alumni association of the Graduate School; Other (please specify)

Required answers: 0   Allowed answers: 4

APPENDIX B: COMPLETE TABLE OF MAJORS

Complete table of majors of program completers in a research intensive university in southern region of the United States.

PriMaj1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SVMPB	1	.1	.1	.1
	SVMCS	2	.2	.2	.3
	SRNR	2	.2	.2	.5
	SPLHL	3	.3	.3	.8
	SPESS	6	.6	.6	1.4
	SOCS	6	.6	.6	2.1
	SMPHP	1	.1	.1	2.2
	SMATH	2	.2	.2	2.4
	SKIN	27	2.8	2.8	5.2
	SISDS	23	2.4	2.4	7.5
	SHRE	9	.9	.9	8.5
	SGEOL	7	.7	.7	9.2
	SGEOG	3	.3	.3	9.5
	SFIN	11	1.1	1.1	10.7
	SFDSC	2	.2	.2	10.9

SENVS	10	1.0	1.0	11.9
SENTM	2	.2	.2	12.1
SECON	2	.2	.2	12.3
SCHEM	4	.4	.4	12.7
SBIOL	2	.2	.2	12.9
SAGRO	5	.5	.5	13.4
SAGEC	3	.3	.3	13.8
SADPA	3	.3	.3	14.1
SACCT	49	5.1	5.1	19.1
PWFS	1	.1	.1	19.2
PVMPB	5	.5	.5	19.8
PVMCB	3	.3	.3	20.1
PSW	1	.1	.1	20.2
PSOCL	3	.3	.3	20.5
PRNR	7	.7	.7	21.2
PPSYC	17	1.8	1.8	23.0
PPOLI	7	.7	.7	23.7
PPLHL	2	.2	.2	23.9
PPHYS	12	1.2	1.2	25.1

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PPETE	3	.3	.3	25.4
POCS	6	.6	.6	26.1
PMUSC	3	.3	.3	26.4
PME	17	1.8	1.8	28.1
PMCPA	2	.2	.2	28.3
PMATH	19	2.0	2.0	30.3
PKIN	2	.2	.2	30.5
PHUEC	3	.3	.3	30.8
PHRE	10	1.0	1.0	31.9
PHIST	6	.6	.6	32.5
PGEOL	1	.1	.1	32.6
PGEOG	5	.5	.5	33.1
PGA	1	.1	.1	33.2
PFREN	1	.1	.1	33.3
PFDSC	3	.3	.3	33.6
PES	4	.4	.4	34.0
PENTM	1	.1	.1	34.1
PENGL	8	.8	.8	35.0
PEE	6	.6	.6	35.6
PEDLR	10	1.0	1.0	36.6

PEDCI	11	1.1	1.1	37.7
PECON	7	.7	.7	38.5
PCSC	5	.5	.5	39.0
PCOMP	2	.2	.2	39.2
PCOMD	1	.1	.1	39.3
PCMST	4	.4	.4	39.7
PCHEN	9	.9	.9	40.6
PCHEM	11	1.1	1.1	41.8
PCE	8	.8	.8	42.6
PBIOL	3	.3	.3	42.9
PBDM	1	.1	.1	43.0
PBCH	2	.2	.2	43.2
PBAFN	1	.1	.1	43.3
PAGRO	2	.2	.2	43.5
PAGEC	6	.6	.6	44.2
PADA	3	.3	.3	44.5
PACCT	1	.1	.1	44.6
MSYSC	19	2.0	2.0	46.5
MSW	78	8.1	8.1	54.6

MPETE	13	1.3	1.3	55.9
MPADM	26	2.7	2.7	58.6
MNS	5	.5	.5	59.2
MMUS	30	3.1	3.1	62.3
MME	6	.6	.6	62.9
MMC	17	1.8	1.8	64.6
MLIS	32	3.3	3.3	67.9
MLA	14	1.4	1.4	69.4
MIE	9	.9	.9	70.3
MFAS	8	.8	.8	71.1
MFACW	4	.4	.4	71.6
MES	2	.2	.2	71.8
MEE	12	1.2	1.2	73.0
MCM	2	.2	.2	73.2
MCHE	6	.6	.6	73.8
MCE	13	1.3	1.3	75.2
MBAE	6	.6	.6	75.8
MBADM	88	9.1	9.1	84.9
MATS	18	1.9	1.9	86.8

MATE	22	2.3	2.3	89.0
MARCH	9	.9	.9	90.0
MAPST	5	.5	.5	90.5
MALA	8	.8	.8	91.3
EGUID	2	.2	.2	91.5
ECIN	6	.6	.6	92.1
DMUS	10	1.0	1.0	93.2
CELRC	1	.1	.1	93.3
CEDCI	2	.2	.2	93.5
APHIL	2	.2	.2	93.7
AHIST	2	.2	.2	93.9
AHISP	2	.2	.2	94.1
AFREN	2	.2	.2	94.3
AELRC	16	1.7	1.7	96.0
ACOMD	24	2.5	2.5	98.4
ACMST	2	.2	.2	98.7
AANTH	13	1.3	1.3	100.0
Total	967	100.0	100.0	

APPENDIX C: COMPLETE LIST OF MOST LIKELY ACTIVITY

Complete list of the most likely activity of graduate program completers in a Research University (RU/VH) in the Southeastern region of the United States

	Master		Doctorate		Total	
	n	*%*	*n*	*%*	*n*	*%*
Employment, full-time paid	609	85.7	174	68.0	783	81.0
Graduate or professional school, full time	47	6.6	59	23.0	106	11.0
Employment, part-time paid	14	2.0	7	2.7	21	2.2
Starting or raising a family	9	1.3	4	1.6	13	1.3
Military Service	4	0.6	2	0.8	6	0.6
Graduate or professional school part time	3	0.4	2	0.8	5	0.5
Volunteer Activity	2	0.3	0	0	2	0.2
Other (please specify)	23	3.2	8	3.1	31	3.2
Total[a]	**711**	**73.5**	**256**	**26.5**	**967**	**100**

APPENDIX D: IRB APPROVAL

ACTION ON EXEMPTION APPROVAL REQUEST

LSU

TO: Raymond Doe
Human Resource and Workforce Development

FROM: Dennis Landin
Chair, Institutional Review Board

DATE: January 27, 2015

RE: **IRB#** E9158

TITLE: Work Readiness among Graduate Students

New Protocol/Modification/Continuation: New Protocol

Review Date: 1/26/2015

Approved X **Disapproved**

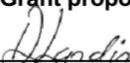**Approval Date:** 1/26/2015   **Approval Expiration Date:** 1/25/2018

Exemption Category/Paragraph: 4a

Signed Consent Waived?: Yes

Re-review frequency: (three years unless otherwise stated)

LSU Proposal Number (if applicable): _____

Protocol Matches Scope of Work in Grant proposal: (if applicable) _____

By: Dennis Landin, Chairman _____

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –
Continuing approval is CONDITIONAL on:
1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. SPECIAL NOTE:
All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at http://www.lsu.edu/irb

VITA

Raymond Doe is the oldest son of Jacob Akotto and Bernice Bassah. He was born in Ghana, where he earned his Bachelor's degree in Psychology from the University of Ghana, Legon. He also had an MPhil degree in Human Development from the Norwegian University of Science and Technology (NTNU) and a Master of Science in Leadership and Organizational Psychology from BI Norwegian Business School, Oslo, Norway. His Doctor of Philosophy degree in Human Resource and Leadership Development from the School of Human Resource Education and Workforce Development will be conferred by Louisiana State University during the commencement ceremony.

Raymond is currently an Adjunct Lecturer in Research Methods and hopes to pursue a fulltime position upon graduation to unleash human potential. He is currently a member of Allied Academies, Association for Talent Development (ASTD) and a Reviewer for the Journal for the Advancement of Developing Economies (JADE). Raymond is married and has a son and a cute daughter.