21st Century Workforce: Employers and students perceptions of satisfaction and preparation of skills and competencies graduates need to get hired in the Northeast

A Dissertation Proposal Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

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Abstract

With technology and innovation as the key pillars of a changing global economy, the business needs are constantly evolving. Educators need to focus on the skills that students need. Research reveals that the employers believe some core skills such as personal attitude, relevant work experience; and technical skills are indispensable and play a major part in hiring decisions (McMurray, Dutton, McQuaid, & Richard, 2016; Paranto & Kelkar, 1999). The changing nature of work is such that employers expect graduates to have knowledge, skills and abilities to keep pace with changes, to keep abreast of companies’ strategic direction, and volatile market and economic changes (Carnevale, Gainer, & Meltze, 1991). The gap between higher education’s undeniable value and concerns many recent graduates nonetheless report should become the impetus for change.

The present study will extend the research stream by identifying the gaps between the employers and students perceptions of satisfaction and preparation of skills and competencies that college graduates need to get hired in the Northeast. The target populations for this correlational, quantitative research design will be college graduates (N=1200) who are pursuing their academic degrees in higher education, at accredited colleges and universities in the Northeast region and (N=1200) employers who are members of five chambers of commerce in the Northeast region.

This research will address the following questions:

1. Is there a relationship between skills required by employers and the skills possessed by students?

2. Is there relationship between satisfaction and importance of skills and competencies of students from employers’ perspective and confidence and preparedness from students’ perspective?

3. How do employers perceive the importance and satisfaction of different skills-set relate to their decision to hire?

Student participants are contacted through the self-registration university system and data from employers will be collected using the databases from five regional chambers of commerce. The results of this study will bring the issue of college graduates’ confidence and preparation for the 21st century workforce to the top of mind for educators, policy makers, students and employers.
Introduction

“Young people need a range of skills, both basic academic skills as well as ability to apply these skills and knowledge in the work place [and in the interview] ... U.S. is not doing enough, fast enough, to prepare for a vibrant economic future for our children and for our nation ...” (Casner-Lotto & Barrington, 2006, p. 7).

In the present-day global competitive economy, the nature of the workforce requirements is continuously undergoing phenomenal metamorphosis. To secure sustained competitive advantage, employers need core competencies in terms of human resources which are rare, valuable, non-imitable, non-substitutable and non-transferable (Barney, 1991; McMurray, Dutton, McQuaid, & Richard, 2016).

Research demonstrated that the core competencies and essential skills include: quantitative, analytical, technological capability, strategic and integrative thinking, creative problem solving, cross-cultural communication and collaboration, flexibility and adaptability to change, self-awareness, a global perspective, and an ethical, socially responsible outlook (Barrett & Beeson, 2002; Finch, Peacock, Levallet, & Foster, 2016; GMAC, 2005; Greater Expectations, 2002; Martin & Butler, 2000; Mumford, et al., 2000; Nesteruk, 1999). However, there was no mention of performing in the interview effectively as a skill, their ability to sell themselves as qualified.

A few studies were conducted to find gaps between student and employer perceptions (Jaschik, 2015). According to Inside HigherEd, recent college graduates are not able to apply their knowledge and skills in real-world settings, especially critical thinking, communication skills (Jaschik, 2015). Wash (2015) stated that “top candidates for current and future jobs will be measured by capabilities and competencies” (p. 1) and that communication, integration, and presentation skills are required for about forty percent of all positions (Wash, 2015). A closer look at some of the skills valued by...
employers include critical thinking skills, problem-solving skills, oral-writing and interpersonal communication, application of diversity and individual differences, innovation and creativity (Kuther, 2013). The skills gap necessitates investigation as to what are the differences between what employers seek in potential graduates and whether the students know what attributes to ‘sell’ so that they become marketable, hirable, and able to contribute to productivity of the economy (Gebre-Meskel, 2015; Hafer & Hoth, 1981; Shapiro, 2008; Velasco, 2012).

**Problem Statement**

In the fast growing industry-driven global economy, higher education is directly linked to economic growth through skills and productivity (Emery, 2005; Finch, Peacock, Levallet, & Foster, 2016; Trow, 2006). This is because the skills lead to organizational efficiency through the production of ideas, invention of technologies and competencies that increase productivity and create demand and result in economic growth (Hoenack, 1993; McMahon, 1993; Slaughter, 1990; Schleyer, Moore, & Weaver, 2016).

Unfortunately, a few research studies reported that the business community is generally dissatisfied with the job that business schools are doing in teaching these skills to graduates (McMurray, Dutton, McQuaid, & Richard, 2016; Paranto & Kelkar, 1999). According to Casner-Lotto and Barrington (2006), employers in a unique study which looked at the readiness of new entrants to the workforce pointed out that the future U.S. workforce is “woefully ill-prepared for the demands of today’s (and tomorrow’s) workplace”(p. 7).

Research reveals that employers believe some basic core skills are indispensable and play a major part in hiring decisions (McMurray, Dutton, McQuaid, & Richard,
The changing nature of work is such that employers expect graduates to keep pace with changes, to keep abreast of companies’ strategic direction, and volatile market and economic changes (Carnevale, Gainer, & Meltzer, 1991). “The gap between higher education’s undeniable value and the concerns many recent graduates nonetheless report should become the impetus for change. In a sense, the “voice of the graduate” revealed in this survey amounts to a cry for help—an urgent call to deepen the relevance of higher education to employment, and entrepreneurship so that the promise of higher education is fulfilled” (Dua, 2013, p. 3).

Furthermore, employers and academics should work together to make instruction meaningful and relevant to workplace needs” (p. 58), so that there is an alignment between employer’s needs, students skills, and higher education responsibilities. Alignment is the crux of the problem.

**Research Questions**

This research study will address the following questions:

1. Is there a relationship between skills needed by employers and the skills possessed by students?

2. Is there a relationship between satisfaction and importance of skills and competencies from employers’ perspective and confidence and preparedness from students’ perspective?

3. How employers perceive the importance and satisfaction of different skills-set affect their decision to hire?

**Background of Study**

**Introduction**

“Higher education is facing new challenges in preparing students for the workforce. As demand increase for students to differentiate themselves when seeking employment, it becomes necessary for higher education and vocational providers not only to understand these challenges, but also to
provide a pathway for students to develop the skills necessary to become sought-after employees” (Cord & Clements, 2010, p. 288).

The rapid changes that are taking place in the world of work today is calling for higher education to play a stronger role in getting college graduate better prepared to transition into the global economy and ready to contribute to the economic bottom-line. Colleges and universities are the epicenters through which citizens, educators, practitioners, policymakers revere the value and significance of the role of higher education in the world today. "Because of the essential role that colleges and universities play, almost everyone has a stake in having them perform well" (Bok, 2015, p.1). According to Nicholas (2009) preparing students for the challenges of industry is a central role for higher education. Industry, nonetheless, is seeking a new breed of graduate, one that can differentiate themselves from peers by being able to engage with the organization, the community and the world. This search begins at the recruiting and job search and screen process. More importantly, higher education must understand these challenges and provide a supportive transition into the workforce by fostering the necessary learning to compete in the marketplace (Cord & Clements, 2010). The matter of students to professionals rest squarely on higher education; therefore it is prudent to gauge the discussion for the background of this study from the perspective of theoretical frames and constructs: systems theory, sense-making construct, transition theory, human capital and human capital theory, constructivist and social learning theory, experiential learn theory, interview and hiring decision processes, an economic growth theory.
Systems Theory

Systems theory and higher education as an open system: systems’ view of students to professional process. Rao and Narayana (1987) noted that one of the dynamic natures of management is the systems approach. Modern management theories consider all elements, the whole organization as well as its component parts. The organization and its environment are seen as an adaptive system which must, in order to survive and adjust to environmental changes.

The open system theory was developed between 1930 and 1956 by Biologist Ludwig von Bertalanffy. By the early 1960s, theoretical psychologists applied the theory to organizational structures such as governments, universities and businesses. “Any time an individual organization uses resources from its environment--including personnel--in its production, its system is open to outside forces” Moreover, the organization and its environment are seen as interdependent; each depends on the other for resources and human relations “A system, in simple terms, is a set of interrelated parts-- It is a group of interrelated but separate elements working towards a common purpose” (Rao & Narayana, 1987, p. 79).

Sensemaking Theory

To incorporate a sensemaking framework into and open systems model is to consider the process by which people give meaning to their experiences. According to Schwandt (2005) the sensemaking concept is not new. The arrival of the knowledge society, increasing organizational and environment complexity, and entities such as high-reliability organization have made sensemaking ubiquitous and desirable to understand operational relationships between information, knowledge, and human
meaning. What does that mean? “The literal definition of sensemaking can be stated as meaning making or feeling making” (p. 182).

Schwandt (2005) contended that the word ‘sense’ allows the introduction of both the cognitive and emotional aspects of the human experience of interaction with environments and, therefore, broadens the allowable types of knowledge that results from the sensemaking process. Likewise, the process is facilitated by the placement of stimuli or information into sense-making frameworks, such as schema or knowledge structures that reduces the complexity of the information and allow for its association with past action and meaning.

**Transition Theory**

College students, whether traditionally or nontraditionally aged, face many changes that can have short-and-long-term effects on their lives. Nancy Schlossberg’s transition theory provides insights into factors related to the transition, the individual, and the environment that are likely to determine the degree of impact a given transition will have at a particular time. The nature of the supports available to facilitate coping, as well as strategies that can be used to assist those experiencing change, is also addressed (Evans, et al. 2010, p. 212-213). Although Schlossberg’s theory of transition is typically categorized as a theory for adult development, the theory is also relevant to traditionally aged college students dealing with a plethora change issues, be it such transition issues as entering college, graduating from college, addressing relationships (Evans, et al. 2010, p. 213). Evans, et al. (2010) “Transitions provide opportunities for growth and development, but positive outcomes for the individual cannot be assumed” (p. 213).
Human Capital and Human Capital Theory

The transition via colleges and universities, a human capital decision, to acquire and education is a valuable and important investment through which people procure knowledge, skills and abilities (Hartog & Van den Brick, 2007). The knowledge and skills acquired by individuals is referred to as human capital (Hornbeck & Salamon, 1991; McFadyen, 2006; Schultz, 1961). Human capital has been regarded as a criterion for the economic growth of countries (Benhabib & Spiegel, 1994; Mincer 1989). Development of human capital requires investment (Becker, 1964, 1994; Schultz, 1961, 1975) and sacrifice (Mincer, 1989) for which the returns are reaped over a period of time by the individual and the society (Hornbeck & Salamon, 1991; Mcfadyen, 2006; Sweetland, 1996). Human capital theory was born over five decades at the hands of scholars such as Theodore Schultz, Gary Becker, and Jacob Mincer (Hartog & Van den Brick, 2007; Haveman, Bershadker, & Schwabish, 2003; Stanfield, 2009). Schultz (1961) is credited as the person who first identified the residual factor as human capital and submitted that, the failure to treat human resources explicitly as a form of capital, as a produced means of production, as the product of investment, has fostered the retention of the classical notion of labor as a capacity to do manual work requiring little knowledge and skill, a capacity with which laborers are endowed about equally (p. 3). Moreover, it is Adam Smith who is considered the economist who “pioneered the concept that a nation’s capital stock included the inhabitants’ acquired knowledge and abilities based on his observation that human skills amplified wealth for the larger society, as well as for the individual [especially]” (Schick, 2008, p. 14).
On the other hand, “human capital theory suggests that individuals and society derives economic benefits from [each other] [citizens investing in citizens]” (Sweetland, 1996, p. 341). The theory promotes education and training as a powerful individual and social lever that also benefits a nation’s economy (Fitzsimons, 1999; Mcfadyen, 2006; Van der Meyer, 2010; Zula & Chermack, 2007), and the accumulation of human capital is perceived to contribute to the health and nutritional wellbeing of a nation's citizens (Schultz, 1963). Furthermore, Schick (2008) maintained that “education and experience were key demographic characteristics underlying the concept of human capital” (p. 6).

**Constructivist and Social Learning Theory**

Another theoretical framework worthy of examination, besides human capital, is social constructivist theory. It explains the interplay between social interaction and active learning through experience. Social constructivist theory provides a framework for understanding how learners in a social environment learn to recognize patterns, organize thoughts, engage and communicate with others, become more informed through the interactions, and change their realities through constructing or re-constructing knowledge (Guba & Lincoln, 1994, Sides & Mrvica, 2007). Vygotsky (1978) recognized the fundamental role of social interaction in the development of cognition (McCleod, 2007). While both Piaget and Vygotsky shaped the foundation for constructivist theory of learning, Piaget differed from Vygotsky in his belief that development preceded learning and in his emphasis on independent discovery influencing cognition (Darling-Hammond & Snyder, 1992; Fosnot, 1996; McCleod, 2007). Vygotsky believed that learning proceeds development and, as the learner confronted a new idea, a mediator or a more knowledgeable person, would help the
learner construct cognitive connections between what they experience and prior knowledge (Fosnot, 1996).

**Experiential Learning Theory**

The experiential learning theorist, known for his research on experiential learning is Kolb (1984), who believes “learning, the creation of knowledge and meaning, occurs through the active extension and grounding of ideas and experiences in the external world and through internal reflection about the attributes of these experiences and ideas” (p. 52). In Kolb’s experiential learning theory cycle, he explains the direct connection between action, reflection, discussion, and learning. Kolb contended that a learner moves from concrete experience to reflective observation, toward abstract conceptualization, and finally to active experimentation (Baker, Jensen, & Kolb, 2002; Chickering, 1981; Kolb, 1984; Kolb & Kolb, 2005).

**Interview and Hiring Decision**

According to Shapiro (2008), college students setting up job interviews for after graduation is important; however, knowing how to interview effectively is fundamental to being hired (Epstein, 2009). Moreover, interviewing is a significant skill that you have to learn, it is the primary thing other than the resume that stands in between new entrant, the graduate and the job they want (Shapiro, 2008). The interview process is where students’ self-efficacy on their preparation of their skills and competencies are called into judgment by a potential hiring employer.

**Economic Growth Theory**

According to Nelson and Phelps (1966), the purpose of a theory of economic growth is to show the nature of the non-economic variables which ultimately determine the rate
at which the general level of production an economy is growing, and thereby contribute
to an understanding of the question of why some societies grow faster than others.
Likewise, most economic theorists have embraced the principle that certain kinds of
education, for example the three R's, vocational training, and higher education, prepare
a person to perform certain jobs or functions, or enable them to perform a given function
more effectively.

**Conclusion**

The rapid changes that are taking place in the world of work today is calling for
higher education to play a stronger role in getting college graduate better prepared to
transition into the global economy and ready to contribute to the economic bottom-line.
Research discloses that employers believe some core skills such as personal
attitude, relevant work-experience; technical skills are indispensable and play a
major part in hiring decisions (McMurray, Dutton, McQuaid, & Richard, 2016). A role
colleges can universities, higher education can play, in its responsibility to produce
competent educated and prepared citizens is to adjust to the feedback from employers
about the preparedness and career readiness of new college entrants into the workforce
(Bok, 2015; Finch, Peacock, Levallet, & Foster, 2016).

**METHODOLOGY**

**Research Design**

This study will employ a correlational, quantitative research design to investigate the
relationship between skills employers perceive to be important and satisfied with when
hiring college graduates and to analyze which job-applicant (New Hire) skills students
perceive they are prepared and confident to deliver. According to Creswell (2014) this
design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. “From sample results, the researcher will generalize or draws inferences to the population” (p. 155). Huck (2012) points out that correlational research requires that statistical data on each variable is examined at the same time. To that end, it attempts to determine the extent of a relationship between two or more variables and the strength of the relationship, presuming that a relationship does in fact exists (p. 45). Based on the review of literature in this research study, there will be multiple independent variables (skills and competencies) and two dependent variable (hiring decisions) and (student interview performance). The design involves constructing a conceptual model (Appendix E) and testing it using the research questions.

**Sampling**

The target populations for this correlational, quantitative research study will be college students (N=1200) in various academic disciplines at accredited universities in the Northeast, pursuing degrees at the time of data collection. Moreover, employers (N=1200) in the Northeast will be of a representative sample from regional chambers of commerce employing 50 or more employees. However, every employer or organization is not a member of their respective regional chamber of commerce. Therefore, it is necessary to cluster the sample for this study because it is impractical to compile a list that would have every company that hires listed in one central location. More importantly, using a multistage clustered sample via the chambers of commerce provide access to names of companies and organizations in the employer population (N=1200) directly (Creswell, 2014). A 5-point Likert-scaled survey will be distributed by e-mail.
**Instrumentation**

A carefully crafted survey instrument will be used to collect information from both students and employers on the relationships between: (I) skills needed by employers and the skills possessed by students, (II) satisfaction and importance of skills and competencies from employers’ perspective and confidence and preparedness from students’ perspective? (III) And the way employers perceive the importance and satisfaction of different skills-set affect their decision to hire? The independent variables (skills and competencies) and the dependent variables (hiring decision) and students’ interview performance. After a thorough literature review, the instrument was adapted and abridged from Paranto and Kelkar (1999) and Hafer and Hoth (1981). The instrument designed has four constructs, i.e. (analytical skills), (communication), (career and professional and interviewing skills), and (personality, leadership and teamwork). Each construct has multiple indicators (Examples: communication is measured using three indicators, analytical skills are measured using six indicators). The students and employers are asked to respond on a Likert’s 5- point scale (1 representing low and 5 representing high) their responses to these indicators. By using this instrument, the researcher aims to investigate employers’ perceptions of important skills and satisfaction with those skills when hiring college graduates and to determine which job-applicant skills employers perceive to be important and are satisfied with when hiring college graduates.

To test the reliability Cronbach Alpha will be calculated for the data each construct. The rule of thumb for acceptable reliability coefficient is .70 (Huck, 2012; Nunnally, 1975). The researcher will also test both internal validity and external validity of the
research to determine if the research accurately reflects the truth. Internal validity is related to the robustness of the relationships between variables. How much does the independent variable affect the dependent variable and external validity refers to the generalizability of the results across different populations, how much does the study reflect what would happen in the real world (Churchill, 1979; Pedhazur & Schmelkin, 1991). To avoid instrumentation as a threat to validity the researcher must distribute the same question, with the same instruction, under the same conditions.

**Data Collection**

The researcher will construct two distinct survey instruments for (N=1200 students and N=1200 employers) with open-ended questions on a 5-point Likert scale, which will be distributed and hosted on SurveyMonkey. These instruments will allow the researcher to collect statistical data, in order to determine relationships, differences and significance among variables in this correlational, quantitative research study. The survey link will be embedded in an email message to the schools’ students email system inviting them to participate. Similarly, employers of five regional chambers in the Northeast will receive an invitation from the Chamber CEO and the researcher to participate. The survey will remain open for approximately 10 to 15 days, with reminders after five to seven days to increase response rate.

**Data Analysis**

The data will be distilled from two questionnaires into an excel format in order to perform various statistical data analyses. Using SPSS software package, the researcher will provide descriptive statistics to summarize descriptive data such as the mean, standard deviation and bivariate correlations and frequencies. Prior to testing the
research questions, researcher will test the reliability of the instrument. Further, a confirmatory factor analysis (CFA) will be done using structural equation modeling (SEM) with linear structural equation language (LISREL) package for the indicators of the independent variables. The CFA will enable the researcher to see whether the indicators are loading on the constructs (independent variables).

Also, for research question (I) the researcher will examine the difference between skills needed by employers and the skills possessed by students using Correlation analysis and discriminant analysis will be done using SPSS software which will explain the differences between these perceptions and see whether there is significant difference between the students’ skills and employers’ requirements. For research question (II) the researcher will examine differences between satisfaction and importance of skills and competencies from employers’ perspective and confidence and preparedness from students’ perspective and discriminant analysis will determine if the differences are statistically significant. For research question (III) the researcher focuses on the effect of the various types of skills on the hiring decisions. This is analyzed using multiple regressions (using SPSS software). The regression coefficients for each of the independent variables (these are various types of skills) and their effect on hiring decisions will enable the researcher to identify the particular skills that are indispensable from the viewpoint of employers. Finally, to test the conceptual model (Appendix E), simple linear regression will be done following the procedures laid by Aiken and West (1991).
Limitations

These are a few limitations to the study:

- The survey instrument design is a potential limitation given the researchers professional judgement to use SurveyMonkey as an effective tool. However, it is conclusive that the survey construction is most user friendly on that platform, while other survey management databases exist. Albeit, the students are very familiar with the use of SurveyMonkey, as it is widely used throughout campuses and students have used it before.

- Subjects are likely to feel uncomfortable while having to answer questions of preparedness and confidence about their capacity to perform effectively during an interview. The researcher will inform the participants that the survey is confidential, data will be collected in the aggregated, and therefore the results will not be tied back to them individually.

- The population of the employer sample may not give responses that are representative of the higher education institutions in the survey, which may skew the data. Although this may be true due to other colleges and universities in the Northeast region, the employers will, nonetheless, answer questions based on the other graduates they have recruited.

- Although the researcher has identified the appropriate samples for this study, the researcher will get only responses from those who actually will take the time to fill out and complete the survey. The researcher will initiate friendly reminder after five to seven days to increase survey completion rate.
Delimitations

These are the few delimitation of this study:

- The scope of this study will be limited to college students pursuing degrees in four-year public higher education institutions in the Northeast region. Meanwhile, employers who are members of chambers of commerce in the Northeast will be sampled.

- The research is purposefully measuring preparedness and confidence with the student survey instrument and importance and satisfaction with the employer instrument.

Resulting Actions

More needs to be done to help students have a better off boarding experience, particularly their performance in the interview where they are measured based on their performance. It is in the interview that the soon-to-be-graduate will have his or her greatest chance to ‘sell’ themselves as the candidate to be hired. If they fail at telling and presenting a signal of their worth, then the human capital investment they made upon entering the university education transformation system could be for naught.

Higher education institutions must come to see the juncture in the system where students are underperforming and employers and the greater economy are discontent about what they are getting. The results of this study will bring the issue of new entrants and college graduates’ preparation and readiness for the 21st century workforce to the top of mind for educators, policy makers, community members, students and employers to engage in dialogues about the changing and competitive global economy. The results
from the study also bridge the gap between where we are as a society and where we want to go; especially with regards to education, employment and economic growth.
References


Learning and Education, 4 (2), 193-212.


APPENDIX A

Definitions of Terms


**Basic Skills** - referred to English Language (spoken). Reading Comprehension (in English, and Writing in English (grammar, spelling.), General Mathematics, Science/Humanities (Casner-Lotto & Barrington, 2006).

**Competencies** - a cluster of related abilities, commitments, knowledge, and skills that enable a person (or an organization) to act effectively in a job or situation. Competence indicates sufficiency of knowledge and skills that enable someone to act in a wide variety of situations behaviors that contribute to an employee’s job success and that are often included in corporate human resource development plans (adapted from Business Dictionary, 2015).

**Human Capital** - refers to the collective value of the organization's intellectual capital including: competencies, knowledge, and skills. This capital is the organization’s constantly renewable source of creativity and innovativeness, but is not reflected in its financial statements. Human capital is always owned by the individuals who have it (adapted from Business Dictionary, 2015).

**Interviewing Skills** - ability to handle a conversation between two people in which one person tries to direct the conversation to obtain information relevant to why you hire the prospect (Gorden, 1992).

**New Entrants** - refers to recent or new entrants (job applicants) with one of three levels of educational attainment: high school diploma, two-year College or technical school diploma, or four-year college diploma (Casner-Lotto & Barrington, 2006).

**Skills Gap** - is defined as a significant gap between organizations current capabilities and the skills it needs to achieve its goals. It is the point at which an organization can no longer execute its strategies, fulfill its mission, grow, or change because it cannot fill critical jobs with employees who have the right knowledge, skills, and abilities (Galagan, 2010).

**Soft-skills** - communicating, conflict management, human relations, making presentations, negotiating, team building, and other such ability, defined in terms of
expected outcomes and not as a specific method or technique such as statistical analysis (adapted from Business Dictionary, 2015).

**21st Century Workforce**- to contribute to work and society as a productive contributor, to be able to quickly learn the core of a field of knowledge while also mastering a broad portfolio of essential learning, innovation, technology, and career skills needed for work and life. The application of skills to today’s knowledge and innovation environment creates a global network (Trilling & Fadel, 2009).
APPENDIX B

Survey Instrument on SurveyMonkey™

21st CENTURY WORKFORCE EMPLOYER SURVEY QUESTIONNAIRE

Nature of this Survey

Significance of this Research: This research study investigates employers’ perception of important skills and satisfaction with those skills when hiring college graduates, and to determine which job-applicant skills employers perceive to be important and satisfied with when hiring college graduates. Specifically, the study investigates how prepared students believe they are to meet employers’ requirements for the 21st century workforce and to analyze which job-applicant skills students perceive they are prepared and confident to deliver.

Educational institutions educate the students by providing the curriculum related theoretical and content knowledge, which may not necessarily align with the requirements of the present-day employers in a highly competitive world. In addition to the knowledge-based pedagogy, it is imperative for business colleges to demonstrate leadership in enhancing the positive relationship between skills learned by the students in educational institutions to the requirements of the 21st century workforce employers.

The new knowledge that I am helping to create will also guide administrators in higher education to improve their best practices for integrating career preparation into the curriculum in higher education.

Confidentiality Issue: The surveys and the results of the survey will be kept strictly confidential. Data will be reported only in aggregate form. I will be the only person who will have access to the surveys and in no case will the individuals from organizations be identified.

Voluntary Participation: Your participation, however, is voluntary. You are under no obligation to answer these questions. Your participation will be appreciated. Should you choose to participate, please provide thoughtful and honest answers?

Time to Complete Survey: This questionnaire should take about twelve to fifteen minutes to complete. When you are finished, please check the questionnaire to see that you have answered all questions.

1. Please rate the level of importance in your organization of the skills/competencies listed below. Circle a response between 1 and 5, with 1 being “not important” and 5 being “very important.”

<table>
<thead>
<tr>
<th>Importance</th>
<th>Satisfaction</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
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<tr>
<td>Competencies/Knowledge required in their specialized area (finance, marketing, etc.)</td>
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<tr>
<td>Experience in (dealing with “real world” problems and issues)</td>
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<tr>
<td>Technical Skills (integrating motor/technical skills, such as the use of computer with other skills)</td>
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<tr>
<td>Ability to adapt to rapidly changing technologies (Computer, software, hardware, policies, etc.)</td>
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<td>Critical thinking / Problem solving skills (ability to evaluate situations and generate appropriate decision/solutions)</td>
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<td>Written communication skills</td>
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<tr>
<td>Speaking communication skills</td>
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<td>Listening skills</td>
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<td>Analytical / Mathematical skills (quantitative ability)</td>
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<tr>
<td>Creative thinking skills (innovative, new ideas)</td>
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<td>Interpersonal skills (ability to work with others in a team ability to organize and complete projects)</td>
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<tr>
<td>Leadership ability required in their job</td>
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<tr>
<td>Global business (Understanding of the problems and constraints of doing business in interconnected global economy)</td>
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14. Ethic/Social responsibility: professional rules of right and wrong, to think and analyze, and to understand that organizations have a social responsibility.

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15. Professionalism (Dress, etiquette, presentation and qualities that characterize a professional).

<table>
<thead>
<tr>
<th>Importance</th>
<th>Satisfactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Career Preparation/Readiness (good to excellent interview ability, eye contact, engaging dialogue, appropriate answers to questions).

<table>
<thead>
<tr>
<th>Importance</th>
<th>Satisfactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

17. Interviewing Skills (ability to handle a conversation between two people in which one person tries to direct the conversation to obtain information relevant to why you hire the prospect)

<table>
<thead>
<tr>
<th>Importance</th>
<th>Satisfactions</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

18. Personal motivation/Positive attitude (self-confidence, ambition, and aspiration and goal oriented).

<table>
<thead>
<tr>
<th>Importance</th>
<th>Satisfactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

19. Entrepreneurial skills

<table>
<thead>
<tr>
<th>Importance</th>
<th>Satisfactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

20. Knowledge of word processing software

<table>
<thead>
<tr>
<th>Importance</th>
<th>Satisfactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. Knowledge of Spreadsheet software

<table>
<thead>
<tr>
<th>Importance</th>
<th>Satisfactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

2. Please indicate the degree to which you agree or disagree with the following statement between Strongly Disagree(1) and Strongly Agree(5)

21. I would hire candidates from my primary recruiting college(s) if I had an opening.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Unable to Respond</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

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3. Please answer the following question with a response at some point between Much Worse(1) and Much Better(5)

How do candidates from your primary recruiting school(s) compare with candidates from other institutions of higher education.

<table>
<thead>
<tr>
<th>Much Worse(1)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Much Better (5)</th>
<th>Unable to respond (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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4. What do you perceive to be the strength of the University in preparing students for the 21st century workforce?

- [ ] Faculty Engagement
- [ ] Career Readiness
- [ ] Teaching Methodology
- [ ] Interviewing Techniques/skills
- [ ] Integrated Curriculum
- [ ] Professional Development
- [ ] Experiential Learning
- [ ] Content Relevant to Industry Needs
- [ ] Service Learning
- [ ] Academic Advising
- [ ] Project Base Learning
- [ ] Industry Standard Technology
5. What skills/competencies do you think are lacking from college graduates in the Northeast Region of the US?

6. Please select 10 of the skills/competencies from the list and rank them in order of importance, (1) being the most important and (10) being the least important (1 to 10)

- Competencies/Knowledge required in their specialized area (finance, marketing, etc.)
- Experience in (dealing with "real world" problems and issues)
- Technical Skills (integrating motor/technical skills, such as the use of computer, with other abilities)
- Ability to adapt to rapidly changing technologies (Computer, software, hardware, policies, etc.)
- Critical thinking/Problem solving skills (Ability to evaluate situations and generate appropriate decision solutions).
- Written communication skills.
- Speaking communication skills.
- Listening skills.
- Analytical/Mathematical skills (quantitative ability).
- Creative thinking skills (innovative, new ideas).
- Interpersonal skills (ability to work with others in a team ability to organize and complete projects).
- Leadership ability required in their job.
- Global business (understanding of the problems and constraints of doing business in interconnected global economy).
- Ethic/Social responsibility (professional rules of right and wrong, to think and analyze, and to understand that organizations have a social responsibility).
- Professionalism (Dress, etiquette, presentation and qualities that characterize a professional).
- Career Preparation/Readiness (good to excellent interviewing ability, eye contact, engaging dialogue, appropriate answers to questions).
- Interviewing Skills (ability to handle a conversation between two people in which one person tries to direct the conversation to obtain information relevant to why you hire the prospect)
- Personal motivation/Positive attitude (self-confidence, ambition, and aspiration and goal oriented).
- Entrepreneurial skills
- Knowledge of word processing software
- Knowledge of Spreadsheet software
7. Hiring decisions after interview process are based on the candidate's:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall appearance and presentation</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparedness and confidence</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personality, demeanor, professionalism fit with the organization culture</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills and competencies that fit the needs of the position</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance in the interview</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Is your hiring decisions influenced by the candidate’s ability to answer the following questions:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tell me about yourself. (Conversational style)</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Go through your resume and tell me about the professional you.</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What strengths are you bringing to the table?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What position are you applying?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What makes you stand out?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What experience can you draw from college that makes you ready for life after college?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify an issue in your life you had to overcome and how did you do it?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is this the kind of work you really want to do to build your career?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How has your major prepared you for this opportunity?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. How important are the following factors in the hiring decision:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Extremely Important</th>
<th>Very Important</th>
<th>Important</th>
<th>Somewhat Important</th>
<th>Not at all Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>School attended</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Major/ Discipline</td>
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</tr>
<tr>
<td>Major GPA</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internship experience</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Recommendations</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Cover Letter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resume</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance in the interview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Demographics

Please answer the following questions related to your demographics.

10. What is the number of employees currently working for your company?

- [ ] 60-150
- [ ] 151-250
- [ ] 251+

11. What industry does your company serve?

12. How long has your company been in existence?

- [ ] 1-5
- [ ] 6-10
- [ ] 11+

13. How long have you been with the present company?

- [ ] 1-5
- [ ] 6-10
- [ ] 11+

14. How long have you been in the current management position in the company?

- [ ] 1-5
- [ ] 6-10
- [ ] 11+

15. What is your gender?

- [ ] Female
- [ ] Male
21st CENTURY WORKFORCE STUDENT SURVEY QUESTIONNAIRE

Nature of this Survey

Significance of this Research: This research study investigates employers’ perception of important skills and satisfaction with those skills when hiring college graduates, and to determine which job-applicant skills employers perceive to be important and satisfied with when hiring college graduates. Specifically the study investigates how prepared students believe they are to meet employers’ requirements for the 21st century workforce and to analyze which job-applicant skills students perceive they are prepared and confident to deliver.

Educational institutions educate the students by providing the curriculum related theoretical and content knowledge, which may not necessarily align with the requirements of the present-day employers in a highly competitive world. In addition to the knowledge-based pedagogy, it is imperative for business colleges to demonstrate leadership in enhancing the positive relationship between skills learned by the students in educational institutions to the requirements of the 21st century workforce employers.

The new knowledge that I am helping to create will also guide administrators in higher education to improve their best practices for integrating career preparation into the curriculum in higher education.

Confidentiality Issue: The surveys and the results of the survey will be kept strictly confidential. Data will be reported only in aggregate form. I will be the only person who will have access to the surveys and in no case will the individuals from organizations be identified.

Voluntary Participation: Your participation, however, is voluntary. You are under no obligation to answer these questions. Your participation will be appreciated. Should you choose to participate, please provide thoughtful and honest answers?

Time to Complete Survey: This questionnaire should take about twelve to fifteen minutes to complete. When you are finished, please check the questionnaire to see that you have answered all questions.

1. Please rate the level of PREPAREDNESS with the skills /competencies listed below. Select a response between “1” and “5” on the left column for each skill/competency listed below, indicating the level of preparedness at some point between LOW (1) and HIGH (5).

Also, please rate your CONFIDENCE with regards to your ability to demonstrate skills /competencies by indicating on the right column of each item your level of confidence. Select responses between “1” and “5” indicating the extent of your confidence levels are at some point between NOT VERY CONFIDENT (1) and VERY CONFIDENT (5).
<table>
<thead>
<tr>
<th>Preparedness</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Competencies/Knowledge required in their specialized area (finance, marketing, etc.)</td>
<td></td>
</tr>
<tr>
<td>2. Experience in (dealing with &quot;real world&quot; problems and issues)</td>
<td></td>
</tr>
<tr>
<td>3. Technical Skills (integrating motor/technical skills, such as the use of computer, with other abilities)</td>
<td></td>
</tr>
<tr>
<td>4. Ability to adapt to rapidly changing technologies (Computer, software, hardware, policies, etc.)</td>
<td></td>
</tr>
<tr>
<td>5. Critical thinking/ Problem solving skills (Ability to evaluate situations and generate appropriate decision/solutions)</td>
<td></td>
</tr>
<tr>
<td>6. Written communication skills.</td>
<td></td>
</tr>
<tr>
<td>7. Speaking communication skills.</td>
<td></td>
</tr>
<tr>
<td>8. Listening skills.</td>
<td></td>
</tr>
<tr>
<td>9. Analytical/Mathematical skills (quantitative ability).</td>
<td></td>
</tr>
<tr>
<td>10. Creative thinking skills (innovative, new ideas).</td>
<td></td>
</tr>
<tr>
<td>11. Interpersonal skills (ability to work with others in a team ability to organize and complete projects).</td>
<td></td>
</tr>
<tr>
<td>12. Leadership ability required in their job.</td>
<td></td>
</tr>
<tr>
<td>14. Ethic/Social responsibility (professional rules of right and wrong, to think and analyze, and to understand that organizations have a social responsibility.</td>
<td></td>
</tr>
<tr>
<td>15. Professionalism (Dress, etiquette, presentation and qualities that characterize a professional).</td>
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<td>18. Personal motivation/Positive attitude (self-confidence, ambition, and aspiration and goal oriented).</td>
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</tr>
<tr>
<td>19. Entrepreneurial skills</td>
<td></td>
</tr>
<tr>
<td>20. Knowledge of word processing software</td>
<td></td>
</tr>
<tr>
<td>21. Knowledge of Spreadsheet software</td>
<td></td>
</tr>
</tbody>
</table>
2. Please select 10 of the skills/competencies from the above list (1-20) and rank them in order of importance, (1) being the most important and (10) being the least important: (1 to 10)

| Competencies/ Knowledge required in their specialized area (finance, marketing, etc.) |
| Experience in (dealing with "real world" problems and issues) |
| Technical Skills (integrating motor/technical skills, such as the use of computer, with other abilities). |
| Ability to adapt to rapidly changing technologies (Computer, software, hardware, policies, etc.) |
| Critical thinking /Problem solving skills (Ability to evaluate situations and generate appropriate decision/solutions). |
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| Listening skills. |
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| Personal motivation/Positive attitude (self-confidence, ambition, and aspiration and goal orientated). |
| Entrepreneurial skills |
| Knowledge of word processing software |
| Knowledge of Spreadsheet software |
Demographics

Please answer the following questions related to your demographics.

3. Gender
   - Male
   - Other
   - Female

4. What is your major?
   - Accounting
   - Finance
   - Marketing
   - Management
   - Entrepreneurship
   - Operations Management
   - Decision & Information Science

5. What is your age?
   - 16-18
   - 19-21
   - 22-25
   - 26-30
   - 31-35
   - 36-45
   - 45+

6. What is your class status?
   - Freshmen
   - Sophomore
   - Junior
   - Senior
   - Graduate

7. Do you believe that the hiring decision after the interview process is based on your:
   - Overall appearance and presentation
   - Preparedness and confidence
   - Personality, demeanor, professionalism fit with the organization culture
   - Skills and competencies that fit the needs of the position
8. Do you believe that the hiring decision by employers are influenced by your ability to answer the following questions:

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tell me about yourself. (Conversational style)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>What strengths are you bringing to the table?</td>
<td></td>
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<td></td>
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<td>What position are you applying?</td>
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<tr>
<td>What experience can you draw from college that makes you ready for life after college?</td>
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<td></td>
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<tr>
<td>Identify an issue in your life you had to overcome and how did you do it?</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is this the kind of work you really want to do to build your career?</td>
<td></td>
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<tr>
<td>How has your major prepared you for this opportunity?</td>
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</tr>
</tbody>
</table>

9. How important do you believe are the following factors in the employer's hiring decision?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Extremely Important</th>
<th>Very Important</th>
<th>Important</th>
<th>Somewhat Important</th>
<th>Not at all Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Attended</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major/Discipline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major GPA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internship Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommendations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cover Letter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resume</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance in the Interview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. How long have you been pursuing this/your degree?

- [ ] Less than one year
- [ ] One year to two years
- [ ] Two years to three years
- [ ] Three years to four years
- [ ] Four years to five years
- [ ] Five years to six years
- [ ] Six years plus

11. What is your email address?

12. In what industry does your major fit?
APPENDIX C

Informed Consent Form

Johnson & Wales University
Doctoral Program in Educational Leadership

21st Century Workforce: Employers and students perceptions of satisfaction and preparation of skills and competencies graduates need to get hired in the Northeast

Introduction:
You are being asked to take part in the research project described below, and to average your perceptions across employers and students. Your decision to complete and return this survey will be interpreted as an indication of your consent to participate. The survey should take you approximately 15 minutes to complete. You do not have to answer any questions that you do not want to answer. We would appreciate receiving it by February 08, 2016. If we do not receive it by said date, we will send you a notice of reminder. If at a later time, you have further questions, you should contact Anthony M. Baird, who is the person mainly responsible for this study. (508-954-7025; e-mail: abaird@umassd.edu).

Description of the Project:
The purpose of this research study is to investigate employers’ perceptions of important skills and satisfaction with those skills when hiring college graduates, and to determine which skills/competencies (job-applicant skills) employers determine to be most important and satisfied with when hiring college graduates. More specifically, the study examines how prepared students believe they are to meet employers’ qualifications criteria for the 21st century and to analyze which job-applicant skills-set students believe they are most prepared and confident to deliver. In other words, this study investigates how employers’ perceptions of the importance and satisfaction of different skills possessed by new entrants affect their hiring decision.

Requirements of Study Participants:
The target population for this study will be college students pursuing bachelor’s degrees in higher education, at an accredited university in the northeast at the time of data collection. Moreover, employers in the northeast will be sampled. This is dependent on obtaining permission from the (IRB) or the (IRPA) office.

Benefits of Study:
The results of this study will bring the issue of new entrants and college graduates’ preparation and readiness for the 21st century workforce to the top of mind for educators, policy makers, community members, students and employers to engage in dialogues about the changing and competitive global economy. The results from
the study also bridge the gap between where we are as a society and where we want to go; especially with regards to education, employment and economic growth.

Confidentiality:
The information that you will share will remain anonymous and will be aggregated for the purposes of this research. The only people who will have access to the research are the immediate researchers, technical staff who set up the secure website and research assistants.

Your answer to open-ended questions may be used verbatim in presentations and publications but neither you (nor your organization) will be identified. Results will be published in pooled (aggregate) format. Anonymity is guaranteed since you are not being asked to provide your name or any personal information and your email address will be dissociated from the data gathered by completing the survey.

Voluntary Participation:
You are under no obligation to participate and if you choose to participate, you may refuse to answer questions that you do not want to answer. Completion and return of the questionnaire by you implies consent. You may withdraw from the study at any time at which point all data generated from you will be removed and electronically deleted.

If you have any questions with regards to the ethical conduct of this study, you may contact the Center for Research & Evaluations, Johnson & Wales University, 8 Abbott Park Place, Providence, RI 02903, tel.: (401) 598-4738.

Please keep this form for your records.

Thank you very much for your time and consideration.

I have read the consent form. My questions have been answered. My signature below indicates that I understand the information and that I consent to participate in this study.

<table>
<thead>
<tr>
<th>Name of Participant</th>
<th>Signature of Participant</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthony M. Baird</td>
<td>Anthony M. Baird</td>
<td>02-01-2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Researcher</th>
<th>Signature of Researcher</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy L. Kite</td>
<td></td>
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<th>Major Advisor</th>
<th>Signature of Advisor</th>
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APPENDIX D

Theoretical Framework

- While external to colleges and universities, the environment (1) informs citizens choices about their educational and career aspirations; while utilizing their sensemaking lens (1a), students make a human capital investment decision to enter college (2). Once inputted and enrolled into the system, they begin their transition to through a university or college(3) of their choice.

- While transitioning through the institution of higher education, the transformation process takes hold (4) where they learn to develop certain skills and competencies, which are reinforced by unique teaching and learning experiences and interactions, both inside and outside of the classroom (4a) that are the foundations of their career aspirations.

- The extent to which the experiences are transformative, students gain knowledge and know to do things, the skills and competencies that are applicable upon exiting the university, via the on-campus interview process (5), which is an assessment and an evaluation of skills and competencies, which determine students’ level of preparation, confidence, readiness and hirability, while transitioning with hire (6) or without hire (6a), into the workforce and their respective industries of interest and beyond.

- Using their sensemaking lens (7) to determine in retrospect if the hirability outcomes successfully or unsuccessfully position graduates to experience, at least, a reasonable return on their human capital investment, while contributing to the global economic bottom-line (8) and the society at larger.
APPENDIX F

Sample Work Plan

June-August

- Prepare and complete Comprehensive Exam
- Finalize selection of major advisor for dissertation
- Develop dissertation proposal
- Identify and formalize the consent of the remaining members of the dissertation committee

August-September

- Finalize dissertation proposal
- Complete Human Consent forms and submit for approval
- Obtain permission to conduct research at the external site
- Obtain permission to use adapted instrumentation (when applicable)
- Submit Nomination of Dissertation Committee form (Major Advisor)
- Submit Proposal for approval through dissertation Major Advisor
- Complete External Review response matrix and revise proposal, per external review feedback; submit matrix and revised proposal to advisor
- Continue to review the literature with respect to the research project; begin to finalize chapters 1 and 2 for dissertation
September-October

- Draft and distribute invitations to participants for data collection; seek permission from gatekeepers or entry contacts for permission to use sites and schedule interviews/meetings/interventions
- Prepare budget and list of materials required to complete research
- Begin scheduling data collection, survey administration, etc.
- Conduct pilot studies; conduct pilot study data analysis
- Official data collection can begin once official letter is received from Program Director regarding approved proposal

October- November-December

- Implement data collection program for research (initial or all phases)
- Respond to feedback from advisor, committee regarding dissertation chapters
- Finish data collection; begin to organize raw data

January

- Complete all data entry and run statistical analyses
- Submit draft Chapters 1-3 to Major Advisor
- Identify any follow-up data collection strategies; implement
- Begin to draft chapter 4 of dissertation; review with Major Advisor

February-March

- Analyze and integrate quantitative data
- Submit revised draft of chapter 4 to Major Advisor; respond to feedback from committee
Submit draft of dissertation summary, recommendations, and conclusions to major advisor

Once entire manuscript has been submitted and reviewed by advisor and committee, a defense date can be scheduled (materials must be completed at least two weeks prior to defense date and invitation)

Defense invitation and abstract prepared for distribution

April-May

Revise dissertation and submit for final approval to major advisor and committee

Submit dissertation defense handout to major advisor

Prepare for dissertation defense (oral)

Orally defend dissertation.

Prepare manuscript for binding.

Upload dissertation manuscript

Participate in commencement ceremony.