12-14-2013

Perceptions of Students at a Rural Mississippi Community College Regarding Employability

Cortney R. Harris

Perceptions of students at a rural Mississippi community college regarding employability

By

Cortney R. Harris

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Community College Leadership
in the Department of Leadership and Foundations

Mississippi State, Mississippi

December 2013

Perceptions of students at a rural Mississippi community college regarding employability

By

Cortney R. Harris

Approved:

_____

Stephanie B. King
(Major Professor)

_____

James E. Davis
(Committee Member)

_____

Arthur D. Stumpf
(Committee Member)

_____

William M. Wiseman
(Committee Member)

_____

David T. Morse
(Graduate Coordinator)

_____

Richard Blackbourn
Dean
College of Education

Name: Cortney R. Harris

Date of Degree: December 14, 2013

Institution: Mississippi State University

Major Field: Community College Leadership

Major Professor: Stephanie B. King

Title of Study: Perceptions of students at a rural Mississippi community college regarding employability

Pages in Study: 80

Candidate for Degree of Doctor of Philosophy

Research studies show that there is a skills gap in American society today. This research study examined employability perceptions of community college students at a rural community college in Mississippi. Students were asked to complete an online survey that questioned the degree of importance placed on several employability skills, as well as their self-perceived competence levels at performing those skills. Likert-scale response set type questions were used to provide responses on importance and competence levels. After sending the survey invitation, 100 usable surveys were returned and analyzed for this research study.

The data were analyzed using descriptive statistics, Mann-Whitney procedures, and Spearman Rho correlations. As an overall group students rated each of the employability skills as being important. Likewise, as a group, students indicated that they at least possessed all of the skills listed in the survey. The study found that no statistically significant difference existed between the two groups (academic and career technical) on skills perceived to be of greatest importance in today's workplace. As it relates to competence levels, the study found that career technical students reported a

higher competence level with two of the skills: problem solving and project management. Finally the study found that significant positive relationships existed between academic and career technical students regarding their competence at performing the skills and those employability skills perceived to be of greatest importance.

DEDICATION

It goes without saying that my parents, Mr. and Mrs. Charles Harris, have always played a major part in whom I am, and who I ultimately aspire to be. Thank you for helping me to understand and know that the only limits are the ones that we place on ourselves. I dedicate the time and effort spent on this endeavor to you and the educational legacy that you are creating for our family. My work is dedicated further to my nieces and nephews; the standard has now been set. My sisters have always been a constant in my life, and for each of you I am grateful. Take your bow; you really pushed me over the edge this time! To the youth of the Bunkley community, be reminded that good can come out of our community. Elder Anthony Wilcher, be encouraged your prayers are being heard, here is evidence.

Now unto him that is able to do exceedingly abundantly above all that we can ask or think, according to the power that worketh in us (Ephesians 3:20). Lord I am so thankful that you are my life, and that my steps are ordered by you. I thank you, the more, that I am not called to walk by what I see, but only by what I believe. I do believe that you are the Christ, and that all things are made possible by and through you! The ultimate dedication is made to the work of the kingdom, and God's Holy plan. To God be the Glory!

ACKNOWLEDGEMENTS

The dedication and commitment shown to students by Mississippi State personnel should never go unnoticed. Particular attention is paid, at this junction, to the timeless efforts of my own dissertation committee. The humbleness and strict attention to detail by Dr. Stephanie King will never be forgotten. It is because of your persistence that my work is now complete. Fellows in education help to make the university community, at large, in the great State of Mississippi an excellent one to be a part of. With that said, I acknowledge the assistance given to me by Dr. James Johnson of the University of Southern Mississippi. Dr. Johnson's insight and ready access to email has made this journey all the more promising. Mrs. Maxine Hockett, Mr. Jimmy Smith and Ms. Keisha Humphrey must be mentioned here, as well. There was not one time through this process that I called on you and you were not ready to help me, for that I am grateful. Joseph, your insight, inspirations, and laptop have all helped to make this endeavor a success.

Finally to those that have prayed persistently with me throughout this endeavor, I am forever indebted. I am a firm believer that the prayers of the righteous avail much. Theresa Shaw, Bobbie Johnson (Bobbie "da" Great), Mary Green, Tammy Covington, Sharon Elmore, Gladys Wilcher, Dr. Judy Smith, and Arica Holmes I know that I need to buy you knee-pads for Christmas/Birthday gifts. There was never a time when your support and prayers were more than a text, email, or phone call away, for you I am grateful.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Investments in human capital have been the bedrock of American society from its earliest existence. People have always valued a higher standard of living, which is made evident by the time, money, and value placed on their betterment through various efforts made by society at large and by individuals (Gray & Herr, 1998). Human capital is one of the most valuable assets found in any community. Gray and Herr (1998) noted "of the three traditional capital components of national wealth (natural resources, capital/technology, and labor), labor or human capital is considered the most important" (p. 63). Flora and Flora (2008) defined human capital as "the assets each person possesses: health, formal education, skills, knowledge, leadership, and talents" (p. 84). Therefore, any expenditure made in these areas is considered an investment in human capital. Shaffer (1997) stated, "Human capital is created when people acquire transferable skills that can be applied in many settings and that can inform many different occupations" (p. 6). Shaffer used the phrase "investment in human capital" to refer to actions taken by individuals to increase their productivity (Shaffer, 1997). Once investments have been made, there is a certain level of expected return on those investments (Becker, 1993).

In recent years there has been an increase in enrollment across all levels of higher education. Not only have enrollment rates increased, graduation rates have also been on

the rise (Burghardt, 2009). According to the U.S. Department of Education, between 1999-2000 and 2009-10, the number of degrees conferred rose at all levels. .In 2009-10 the number of associate's degrees was 50% higher than in 1999-2000, the number of bachelor's degrees was 33% higher, the number of master's degrees was 50% higher, and the number of doctoral degrees was 34% higher (Synder & Dillow, 2012).

Despite these increased investments in human capital, there is a concern that there is a skills gap. The idea of the skills gap can be traced back to the 1980s (Beaulieu & Mulkey, 1995). The skills gap can be attributed to deficiencies in the development of human capital. One way to effectively develop human capital is for educational institutions to offer instruction that reflects employer needs. During the last two decades, the federal and state governments have encouraged significant reforms in the linkages between education, training, and employment to maintain or enhance the nation's economic competitiveness. "A significant component of these reforms has been a focus on defining competencies seen as necessary to enable individual workers to perform their daily tasks more efficiently and thereby achieving greater productivity" (O'Neil, 1997, p. 122). Due to the perceived gap, educators and communities at large can no longer rely on the mere convening of classes and granting of diplomas as sufficient proof that their graduates meet workforce needs (Paulson, 2001).

In 1986, the American Society for Training and Development (ASTD) noted that a skills gap exists when an organization's current capabilities and the skills it needs to achieve its goals are misaligned (Carnevale, Gainer, & Meltzer, 1990). Once a skills gap is noted, companies tend to become stagnant and uncompetitive due to the lack of employees with the right knowledge, skills, and abilities. The consequences of a skills

gap go far beyond the confines of individual organizations and sectors. Nations, states, regions, and communities are all adversely impacted when they cannot find or equip workers with the right skills for critical jobs (Friedman, 2005).

The loss of competitive advantage takes a toll on the economies of state, local, and national governments. Friedman (2005) said, "The world is flat," (p. 5) referring to the idea of a global, level playing field in which an unprecedented number of capable new competitors are vying for dominance. Competition is no longer restricted by geographical boundaries. Global competition has been marked by recent technological advances and the advent of wide-spread internet use (Friedman, 2005). As the leveling of the playing field continues, the demand for skilled workers in the United States and across the globe will increase.

The current President of the United States, Barack Obama, is cited in *The Saratogian* (Franco, 2009) for comments offered on the readiness of the workforce and the government's role in ensuring that the American people are prepared to compete globally. The President pointed out that the building blocks of innovation have always been and will likely remain education, infrastructure, and research. He went on to say that it would be necessary in the coming years for students to at least obtain an associate degree if America is to keep up with the job requirements and skills that new companies are requiring (Franco, 2009). Workforce strength leads to economic strength, and lack of a strong workforce will lead employers to shift jobs to locations that have adequate quantities of skilled labor (Friedman, 2005). The President's statement helps to underscore not only the importance of higher education, but it sheds light on the impact community college systems will have on the core of the nation's workforce. In the new

competitive market of the 21st Century, the government's role will be inclusive of providing the opportunity for all to enhance their employability, which will likely contribute to continued growth in higher education (Casner-Lotto & Barrington, 2006).

Increased enrollment rates and graduation projections help to outline the significance of the community college for the coming years. Community colleges have always taken a front-line status when it comes to issues with workforce development and training (Peddle, 2000). In many rural areas across the country community colleges are the institutions principally responsible for providing access to post-secondary educational opportunities (Katsinas, 2007). Upon the completion of studies at the community college, students are able to transfer to a four-year institution to further their studies or they are able to enter the workforce with the associate's degree or certificate of training. Data from the United States Bureau of Labor Statistics (US BLS) suggest that many of the occupations that are among the *fastest growing* can be filled and adequately maintained by persons with an associate's degree or less (US BLS, 2010).

In 2010 the US BLS released projections of the fastest growing occupations in the United States. Twenty-seven occupations were listed by the US BLS; within those listed, only four required a bachelor's degree or higher. Over 85% of the jobs listed required an associate's degree or less (US BLS, 2010). Unrestricted access to higher education has led to questions on several aspects of quality of education, including the relevance of higher education for the job market. Most people agree that advanced education is the pipeline to the workforce (McLester & McIntire, 2006). Interestingly, the data indicate that many job market needs can be substantially met at the associate's degree level or lower (Voorhees & Harvey, 2005). To move forward effectively employers will need to

state clearly what they need from the educational system, so that those that do opt to pursue higher education are at least being introduced to the skills that employers demand (McLester & McIntire, 2006).

Workforce strength leads to economic strength, and lack of a strong workforce will lead employers to shift jobs to locations that have adequate quantities of skilled labor (Friedman, 2005). The quality of the workforce determines the degree to which natural resources and capital/technology can be used to their fullest potential. In the 2005 *Skills Gap Survey* of the American Manufacturing Workforce, 81% of the respondents indicated that they could not find qualified workers to fill the open positions within their company (Griffin, 2012). For at least two decades employers have questioned the employability skills of recent graduates (Peddle, 2000). Not only have the skills of graduates been in question, the system of higher education (as a whole) and its ability to develop graduate employability skills has received a considerable amount of attention. Casner-Lotto and Barrington (2006) asserted that post-secondary educational systems in the United States are not providing new entrants to the workforce with necessary work-readiness skills that employers demand.

Increased emphasis on employability reflects the current demands for technical, scientific, and professional workers who require lifelong learning (Brown, Hesketh, & Williams, 2003). One of the primary issues to be addressed in conducting a study on employability and workforce readiness is to determine the confines in which the terms will be used. Hillage and Pollard (1998) suggested that employability is about having the capability to gain initial employment, maintain employment and obtain new employment if required. Employability includes both hard and soft skills. Overtoom (2000) suggested

that employability skills refer to "transferable core skill groups that represent essential functional and enabling knowledge, skills, and attitudes required by the 21st Century workplace for career success at all levels of the workplace" (p. 1). In recent years predicting what competency levels are needed to become and remain a successful employee and to effectively manage individual employability has become increasingly difficult (Barnett, 2004; Grummon, 1997).

Statement of the Problem

For some time national studies have identified a skills gap in the workforce (Beaulieu & Mulkey, 1995; Carnevale et al., 1990; Johnston, 1987; Peddle, 2000). A disconnect exists between the demands of employers and the quality of preparation of recent graduates (Robinson, 2000). In recent years large employers have dominated debates about employability (Hesketh, 2000). The possession of a college degree has always made an applicant more marketable (Pascarella & Terenzini, 2005); however, employers have reported dissatisfaction with the quality and readiness of recent college graduates (Gardner, 1997).

Many debates on graduate employability focus on deficiencies in higher education. Graduates must possess the employability skills demanded in the workplace to acquire and retain jobs (Tetreault, 1997). The urgency of employability is made evident by the recent shifts in the economy and the recurring debates focused around a solution for the issue. Regardless of who is at fault with regards to the skills gap, it is the individual who is responsible for his or her economic success (Falk & Lyson, 1988). The extent to which community college students perceive employability skills are important and their perceived competence in performing those skills will go a long way in helping

to understand better potential employees' views on the state of employability in local communities.

The problem that led to this research study is the lack of understanding regarding whether students who are eligible to graduate from both career technical and academic track programs apprehend the importance of identified employability skills, and are able to self-evaluate their own competence at performing those skills. The skills gap that has been identified in American communities has been explored in many regards from the perspective of industry and manufacturers; however, this study analyzes community college students' perceptions of the importance of several identified employability skills and their competence level at performing the skills.

Purpose of the Study

The purpose of this quantitative research study was to assess the perceptions of community college students regarding the importance of identified employability skills and their perceived level of competence at performing those skills. Understanding student perceptions is crucial in ensuring that all stakeholders recognize education's relevance within the context of the workplace and employability upon graduation. Since employability skills play a major part in whether or not graduates are hired, it is important to know what student perceptions are, as to their employability (Robinson, 2006). It is repeated throughout the literature that industry and manufacturing companies are concerned with the readiness of recent graduates for the workforce (Peddle, 2000); however, there are missing details when the views of the student are not considered.

Research Questions

The research questions for this study are as follows:

1. What employability skills do students of academic and career technical programs perceive to be of greatest importance in today's workforce as measured by the Survey of Employability Skills?
2. How do students of academic and career technical programs rank their competence at performing employability skills as measured by the Survey of Employability Skills?
3. Are there differences in employability skills perceived to be of greatest importance in today's workforce as perceived by academic program students and career technical program students on the Survey of Employability Skills?
4. Are there differences in competence at performing employability skills as perceived by academic program students and career technical program students on the Survey of Employability Skills?
5. Do relationships exist between academic and career technical program students' perceptions regarding their competence at performing employability skills and those employability skills perceived to be of greatest importance in today's workforce as measured by the Survey of Employability Skills?

Definition of Terms

The terms listed in this section are provided for clarification and to present a clear understanding of the use of the terms in the study.

- *Academic track programs* offer the first two years of academic parallel courses and curricula of a baccalaureate degree program (M.J. Posey, personal communication, February 11, 2013).
- *Career Technical programs* prepare individuals for employment upon completion of a prescribed curriculum (M.J. Posey, personal communication, February 11, 2013).
- *Employability* refers to the relative chances of acquiring and maintaining different kinds of employment (Brown et al., 2003).
- *Employability skills* are transferable core skill groups that represent essential functional and enabling knowledge, skills, and attitudes required by the 21st Century workplace. They are necessary for career success at all levels of employment and all levels of education (Overtoom, 2000).
- *Skills gap* deals with the mismatch between skills acquired in school and those required in jobs created by today's economy (Moore, 2001).

Conceptual Framework

The conceptual framework is added to help provide a visual of how the research is intended to unfold. The study sought to determine which skills students ranked as important, and their degree of competence. The research identifies the differences found between career technical students and their academic counterparts, as it relates to employability skills of greatest importance and levels of competence. Figure 1 provides an illustration of the research for this study.

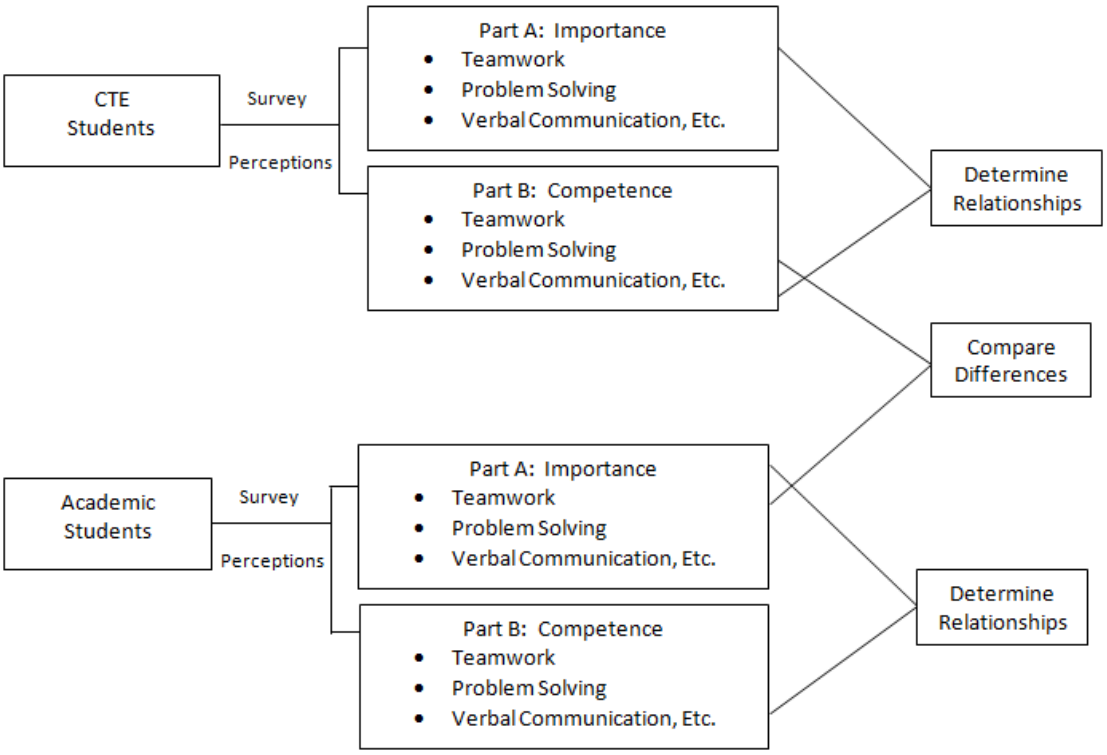

Figure 1. Conceptual Framework.

Theoretical Framework

It is generally accepted that education creates improved citizens and helps to upgrade the general standards of living in a society. According to Becker (1993) embedded in the tenets of human capital theory is the assumption that expanding education promotes economic growth. Human capital is considered the most important of the three traditional components of national wealth (Gray & Herr, 1998). The theory used in this study is human capital theory. This theory was originally proposed by Schultz (1961). Human capital theory states that participation in education and training is an investment that yields both social and private returns (Becker, 1993). The social returns are displayed with the production of a highly skilled, educated workforce; while

the private returns are noted by on average higher earnings and career mobility options (Becker, 1993; Schultz, 1961). Flora and Flora (2008) defined human capital as those facets that contribute to an individual's ability to earn a living, strengthen community, and otherwise contribute to community organizations, to their families, and to self-improvement. They also stated that interpersonal skills, values, and leadership capacity are a part of human capital (Flora & Flora, 2008). With this theory in mind the researcher pursued the task of assessing student perceptions on their workforce readiness based on several identified employability skills.

Delimitations

In order to help understand the scope of the study the below delimitations are listed. The delimitations that relate to the survey instrument itself limit the study in many regards to previously identified skills that were in demand by the workforce. The delimitations are as follows:

- The study was conducted only with students at one rural Mississippi community college.
- The study used a modified survey instrument initially formatted to measure perceptions of university students majoring in manufacturing.
- The employability skills identified in the Griffin (2012) survey were taken from literature centered on the manufacturing industry (i.e., the Society of Manufacturing Engineers/National Association and Mississippi's Manufacturer's Association).
- This study did not take into account the views of potential employers.

Significance of the Study

The notion of a skills gap dates back to the early 1980s (Beaulieu & Mulkey, 1995). The perspective of industry personnel and manufacturing leaders seems to dominate the debate on causes of the gap (Griffin, 2012). There are several research studies that deal with issues of employability, but for the most part they are from the perspective of the university student, their instructors, and in some cases, the employers of graduates. This study adds to the body of knowledge on the skills gap by adding insight from the community college level. The study is significant in that it investigates the perspective of the students at the community college. This study is beneficial in helping college administrators gain insight on student's perceived competencies with the identified employability skills. Additionally, the study helps identify what employability skills the community college student considers to be of importance, which in turn may help them to realign their outlooks, which could prove beneficial in future job searches. Institutionally the results of this study could help educators revise curricula to strengthen instruction in areas were student perceptions are weak, as well as in areas students perceive to be most important if the curriculum is currently weak in those areas.

Organization of Study

The research study is organized into five chapters. Chapter I presents introductory elements of the study and includes the statement of the problem, purpose of the study, research questions, definition of terms, conceptual and theoretical frameworks, delimitations, and significance of the study. Chapter II summarizes a review of related literature which addresses workplace skills and employability. Chapter III of this study discusses the methods and procedures used to complete the study. This chapter includes

the research design, population, instrumentation, validity and reliability of the instrument, and data collection procedures. The results and statistical analysis of the study are presented in Chapter IV. The study concludes with Chapter V with a summary of the findings and conclusions drawn from the study, limitations of the study, recommendations for policy and practice, and recommendations for future research.

CHAPTER II

REVIEW OF LITERATURE

This chapter provides a review of literature related to workplace skills and employability. Several national studies are identified and discussed. Empirical studies that have helped to build a foundation for this research are also discussed. The chapter covers some of the skill groups and competences that have been identified as important in the way of employability and workforce needs. The chapter concludes with a brief discussion of dissertation research that has been recently conducted that relates to the topic of employability and employability skills.

Employability Reports

Employers increasingly desire that employees, at all levels, solve problems, create ways to improve the methods they use, and engage effectively with their coworkers. The workplace is forever changing; recent innovations in technology and in human capital have provided grounds for people to advance their skill sets, knowledge bases, and access to a world of opportunity (Friedman, 2005). The volume of major studies undertaken in the past two decades to identify and describe employability skills underscores how critical this topic is becoming in the forever changing world of work. In 1991, the U.S. Department of Labor released the Secretary's Commission on Achieving Necessary Skills (SCANS) Report *What Work Requires of Schools* (SCANS, 1991). The SCANS

Report examined key skills needed by employees for the workplace from the perspective of both the employer and their employees in fifty different occupations. The SCANS Report served as an important milestone for workplace skills development as it offered insight into skills most desired by employees (Griffin, 2012).

The SCANS (1991) Report is perhaps the most extensive attempt to identify workplace basic skills. The SCANS Commission, composed of 30 representatives from education, business, labor, and state government was charged with defining a common core of skills that constitute job readiness in the economic environment. The SCANS (1991) Report identified essential foundation skills as follows: *Basic Skills* (Reading, Writing, Arithmetic/Mathematics, Listening, Speaking); *Thinking Skills* (Creative Thinking, Decision Making, Problem Solving, Conceptualizing, Knowing How to Learn, Reasoning); and *Personal Qualities* (Responsibility, Self-Esteem, Sociability, Self-Management, Integrity/Honesty).

The SCANS (1991) Report also identified workforce competencies as: *Resource Competencies* (Time, Money, Materials, Facility Resources, and Human Resources); *Interpersonal Competencies* (Participates as a Member of the Team, Teaches Others New Skills, Serves Clients/Customers, Exercises Leadership, Negotiates, and Works with Diversity); *Information Competencies* (Acquires and Evaluates Information, Organizes and Maintains Information, Interprets and Communicates Information, Uses Computers to Process Information); *Systems Competencies* (Understands Systems, Monitors and Corrects Performance, Improves or Designs Systems) and *Technology Competencies* (Select Technology, Applies Technology to Task, Maintains and Troubleshoots Equipment). The SCANS skills and competencies have been perceived as the skills that

employers want, and have served as a foundation to develop workplace skills curriculum (SCANS, 1991).

In 1986 ASTD conducted a study which explains the changing needs of the workforce (Carnevale et al., 1990). The ASTD study identified basic skills employers deem necessary for workplace success. In sum, ASTD's study highlights the need for workers at all levels to be able to solve problems and interact effectively with coworkers (Parker, 1998). Much like the SCANS Report, the ASTD study often serves as a foundation for other studies addressing employability skills.

The American dream is built around themes and theories centered in higher education (Gray & Herr, 1998). One major issue, however, is the concern that "graduates did not have the skills and abilities needed in the workplace" (Huba & Freed, 2000, p.16). This dissatisfaction has been evident since the 1980s. Reports have been released by various public agencies and organizations that suggest that the average worker simply did not possess the skills and knowledge needed to compete effectively in the workforce (Beaulieu & Mulkey, 1995). Employers are concerned that graduates do not bring to the workplace the skills necessary to perform in the jobs that are available within their company (Peddle, 2000). Discussions on today's workplace eventually turn to discussions on the employability skills of the labor force. According to many top level manufacturing and industry leaders, finding workers who have the employability or job readiness skills that help them fit into and remain in the work environment is a real problem (Blakely & Bradshaw, 2002). Employability skills encompass a conglomerate of basic skills that help employees get along with others and their supervisors, and to make sound, critical decisions. Unlike technical or occupational skills, employability

skills are not job specific but rather are generic in nature and cut across many segments of the workforce (Robinson, 2000).

The gaps in basic workplace skills are not new. Reports have been released since the 1980s that addressed the workplace competency skills gap (Beaulieu & Mulkey, 1995). The Commission on the Skills of the American Worker (CSAW) and the Hudson Institute Workforce Report (2000) predicted that there would be a skills gap (Johnston, 1987). These reports were able to give forewarning that workers of the future would need to acquire and retain better basic workplace skills (CSAW, 1990). Brawn would be replaced by brains, meaning that no longer would physical agility suffice. Physical manpower would be replaced by computers, according to this report, and critical thinking skills would be necessary to master the complexities of the computer systems that would be used (Johnston, 1987; Toffler, 1990).

Often used as the standard and starting point of international, national, state, regional, and local studies are the reports by ASTD (1986) and the SCANS (1991) Report, respectively (Carnevale et al., 1990). These reports are critical in identifying basic workplace competencies. Six skill groups have been identified across all job families: (1) Basic Competency Skills—reading, writing, computation; (2) Communication Skills—speaking, listening; (3) Adaptability Skills—problem solving, thinking creatively; (4) Developmental Skills—self-esteem, motivation and goal-setting, career planning; (5) Group Effectiveness Skills—interpersonal skills, teamwork, negotiation; and (6) Influencing Skills—understanding organizational culture, sharing leadership (Overtoom, 2000). The SCANS skills and competencies have been perceived

as the skills that employers want and have served as a foundation to develop standards in regard to workplace skills (Griffin, 2012).

Brown et al. (2003) noted that employers regularly state that graduates are not prepared for the workforce. This suggests that colleges are failing in their role of properly preparing graduates for the expectations of the workforce. They argue that the debate about the quality of graduates has received little conceptual or empirical analysis. In their work to develop a conceptual framework for the study of employability they suggest that employability exists in two dimensions: the first being relative and the second that of absolute employability. Most policy debate is on the latter form. Absolute employability focuses on whether students have the appropriate skills, knowledge, and commitment of business acumen to do the job in question. In determining whether graduates possess these traits, any deficiencies noted may be deemed a contributor to the perceived skills gap. The current emphasis on employability underscores the demand for technical, scientific and professional workers who require lifelong learning, as the proportion of semi-skilled and unskilled jobs continues to decline (Brown et al., 2003).

Drucker (1993) suggested that the means of production is no longer capital, natural resources, or labor, but knowledge. Drucker was among the first to identify the existence of the knowledge worker. The way people once worked has been drastically changed by advances in technology and the globalization of the workplace. Muscle power is being replaced by one's cognitive abilities, and people are being paid to think on their feet and to solve meaningful and complex problems (Brown et al., 2003). Although the US BLS (2010) does not include knowledge workers as a specific category, they predicted that between 2006 and 2016 there would be a shift from goods-producing to

service-producing employment, helping to validate the claim that the nature of work is and will continue to change. One of the more crucial factors in this regard is that the quality of the workforce will determine the degree to which natural resources and capital/technology can be used to their fullest potential (Gray & Herr, 1998).

Casner-Lotto and Barrington (2006) suggested that high school and post-secondary educational systems in the United States have failed to equip new entrants into the workforce with the necessary work-readiness skills that employers demand. They collaborated with four organizations: The Conference Board, Corporate Voices for Working Families, Partnership for 21st Century Skills, and the Society for Human Resource Management, to complete a study of over 400 employers across the United States. They outlined a skill set that new entrants into the workforce would need to succeed in the workplace. The survey blocked work-readiness skills into two categories: basic knowledge and applied skills. Basic knowledge skills are those skills acquired through formal education. Included in the basic (hard) skills subset are English, mathematics, science, history/geography, humanities/art, government/economics, and foreign language. Applied (soft) skills are those skills used to help apply what has been learned in school to the workplace. Applied skills are comprised of problem solving and critical thinking skills. Oral communication, teamwork/collaboration, information technology application, and creativity/innovations are among other applied skills noted in the survey. In the survey the participants were able to rank needed skills into three categories: deficient, adequate, and excellent. Employers stated that having entrants with skills in the excellent category is very important to their company's success. The results of the study indicated that high-school-only graduates did not possess one single skill in

the excellent category. New entrants who held at least an associate's degree ranked high in the area of Information Technology and were coded excellent by survey participants. However the two-year graduates were deficient in eight of the ten very important skills identified by participants (Casner-Lotto & Barrington, 2006).

Employability Studies

Several employability/workforce readiness studies have been conducted within various occupations and based on an employee's college major. These studies have been conducted by surveying employers, business leaders, and college alumni. For instance, Hettich, Landrum, and Wilner (2010) surveyed alumni from a large Western university to determine their opinions about the importance of various workplace tasks and behaviors, to gauge changes in emotional qualities since graduation, and to elicit specific recommendations to help colleges and universities facilitate workplace transitions. The study surveyed psychology alumni (N=78) about their preparedness and competency on 54 areas of workforce readiness, changes since graduation on 33 adjectives describing emotional states and personality qualities, and suggestions for universities about how to better prepare students for workplace success. In the area of workforce preparedness the results indicated that the top ten skills were: self-discipline; responsibility; work well with others (teamwork); meet the needs of other (customer service); set priorities and allocate time efficiently to meet deadlines (project management); identify, prioritize, and solve problems (problem solving); make defensible and appropriate decisions (critical thinking); possess the ability to work without supervision; work independently; and manage several tasks at once. The study concluded that the areas that were identified by alumni respondents corresponded well with the areas/skills desired by employers. The

researchers go on to say that the ten skills and behaviors expected in the workplace are also required for success in the classroom. These skills may not be readily identifiable within a syllabus or assignment, but they are among the same skills that educators indicate are necessary for college success (Hettich et al., 2010).

McClain and McClain (2007) conducted research on allied health care supervisors and managers to determine the extent to which allied health care providers considered the SCANS skills and competencies as those that are necessary for entry-level employment in the allied health care industry. In order to conduct the research 224 supervisors and managers of eight allied health departments in 28 hospitals in urban and rural settings in Nevada were used. Participants were issued a survey composed of 35 items with respect to the 15 skill domains and competency domains identified by the SCANS (1991) Report. Subjects were asked to indicate how necessary they perceived each of the skills and competencies for allied health care employees. In order to rank the responses, a 4-point Likert-type scale with ratings ranging from 0 (unnecessary) to 3 (very necessary) was used. The employers were also asked to identify a percentage estimate (0%-100%) regarding their perceptions of the extent to which their entry level employees possessed the skills and competencies. The survey yielded a 31% response rate. More than 92% of the respondents agreed that both SCANS workplace skills and competencies were necessary for entry level employment. As a whole, the respondents (employers and employees) indicated that all 35 skills and competencies were either necessary or very necessary. Employers indicated that two skills, reading and honesty were perceived to be sufficient by greater than 90% of entry level employees. Further, 20 SCANS skills and competencies were deemed sufficiently possessed by 80 to 90% of entry level employees.

Conversely, 20% to 30% of entry level allied health care employees were perceived to be lacking in eight of the necessary SCANS skills and competencies. Of the respondents to the survey, 98% indicated that the SCANS skills and competencies are necessary or very necessary for their facilities' productivity; 100% of those responding rated the skills and competencies as necessary or very necessary for profitability (McClain & McClain, 2007). The results from McClain and McClain (2007) clearly indicated that what employers perceived as necessary for entry level employment and the abilities possessed by their entry level employees were at odds. An obvious skills gap existed between skills and competencies deemed as necessary in these health care facilities and those skills possessed by new employees.

Gardner (1997) conducted research into the perceived skills gap that had been noted among new graduates. The study was designed by the Collegiate Employment Research Institute at Michigan State University. The study was designed to measure the skills and performance of college graduates. Comparisons were made between the requirements of the jobs and graduates' work performance. A group of employers participated in the survey, and the data were used to help validate the applicability of the survey to the workforce. Interestingly, the survey results showed few significant differences between job requirements and employee preparedness. The survey was unique in that it did not ask the employers to identify the importance of each skill or question the employer about employee ability with each skill. The average entry-level hires were expected to be able to break down information into its appropriate parts, discern the relationships between these parts, and organize information to support conclusions and generalizations. Performance expectations differed among technical and

non-technical graduates. For instance, non-technical graduates were expected to excel in teamwork, conflict resolution, and critical thinking. On the other hand, technical graduates were expected to excel in areas such as analyzing and synthesizing data as well as manipulating and retrieving information. The study revealed that specific positions require varying levels of skill and competency. Further, the results suggested that the problems with which new graduates struggle are in areas not directly taught in the classroom (i.e., relational and personal competencies). In helping to shorten the gap in this area, scholars have often suggested participation in co-op and internships, involvement in activities and organizations that promote development of relational competencies, and construction of work/study portfolios (Gardner, 1997). According to Gardner (1997), faculty members are not committed to these types of extra-curricular activities, nor are students afforded an opportunity to reflect on their educational experiences in relationship to their future work endeavors. These findings help to shed light on the need for strong academic support systems to encourage skill development outside of the classroom.

Dissertations on Employability

Robinson (2006) assessed the employability skills of agriculture graduates at the University of Missouri-Columbia and their immediate supervisors using Borich's needs assessment model. Robinson's study addressed 67 employability skills. Robinson used the survey method to determine graduate perceptions of the importance of the employability skills and their levels of competence at performing the skills. Robinson also surveyed supervisors to assess their perceptions of the importance of employability skills and the competence level of graduates. The study found that all 67 skills evaluated

were perceived as moderately important by both the graduates and their supervisors. When assessing the importance of the employability skills and competence levels, graduates and their supervisors had notable differences. For example, graduates reported that problem solving and motivations were the most important employability skills. On the other hand, supervisors reported that working well with other employees, organization, and team management are among the most important employability skills. There were also discrepancies between graduates and supervisors regarding competence levels of employability skills (Robinson, 2006).

Ogebeide (2006) developed a descriptive correlation study to examine the self-perceived employability skills of senior-level hospitality management students at the University of Missouri-Columbia as a follow-up to the Robinson (2006) study. The author reported that respondents developed between moderate and major competence to serve as productive employees in the workplace. This study also addressed curriculum improvement. Ogebeide (2006) tied curriculum improvement to improvements in student knowledge and understanding of political implications of their decisions and interpersonal skills or human relation skills. He recommended that additional research be conducted with hospitality management programs and across other disciplines. Because the findings in his study could not be generalized, he suggested that his study be replicated using a sample from which the results could be generalized. He suggested comparing results from a replicated study across institutions. Ogebeide (2006) also recommended the development of a longitudinal study to describe correlations between students' level of competence and their job satisfaction.

Griffin (2012) also conducted a study that was a modified version of the Robinson (2006) study. She modified the survey to include only 10 employability skills. The study sought to assess the perceptions of senior students and teaching faculty in manufacturing-related degree programs in Mississippi universities regarding identified employability skills in the areas of importance, integration, and student possession. In addition, both faculty and students identified existing strategies used to integrate employability skills into academic courses. The study used a descriptive, non-experimental research design. The findings of Griffin's (2012) study indicated that both faculty and students perceived the employability skills identified in the survey as important. The results of this study suggested that Mississippi's manufacturing students appear to be doing well in the areas of problem solving, teamwork, critical thinking, and project management. In the areas of customer service and written communication there seems to be a need for improvement and additional investments of time and attention.

Table 1 is included to help clearly identify the discipline, perspective of the study, and findings of the three previously discussed dissertations that dealt with employability. These studies are all unique in their own way. The researchers for these studies were interested in insight from students at the university level. Robinson (2006) researched students and employers from the field of agriculture. He found that differences did exist between the two groups in their perceptions of importance of employability skills and perceived competence levels. Ogebeide (2006) studied senior hospitality management students as a follow-up to Robinson's work. He found that improvement was needed in decision making and interpersonal skills. Griffin (2012) is one of the more recent studies of employability. Griffin studied students and faculty from the field of manufacturing. In

the study it was found that more emphasis is needed in the areas of customer service and written communication. The current research focuses on perceptions of students at the community college level.

Table 1

Recent Dissertations Completed on Employability Skills

Author	Discipline	Perspectives	Findings
Robinson, 2006	Agriculture	Graduating Students & Employers	Difference in perception of importance and competence
Ogebeide, 2006	Hospitality Management	Students	Improvement needed in decision making and interpersonal skills
Griffin, 2012	Manufacturing	Senior Students & Faculty	More emphasis needed on customer service and written communication

These studies are all discipline specific, and notably none of them deal with insight from students at the community college level. The researcher intends to build on the body of research by adding the perceptions of community college students to the discussion on topics related to employability. It was resoundingly clear during the 2012 Presidential debates that in the coming years our government will be looking to the community college to help in rebuilding the economy. America's economic strength has always and will continue to depend upon the education and skills of its workforce. It has been projected that jobs requiring at least an associate degree will grow twice as fast as

those requiring no college experience (US BLS, 2010). Furthermore, the Council of Economic Advisors (2009) has released a report that foresees a shift toward jobs that require workers with higher analytical and interactive skills. The community college is needed now, more than ever, to raise American skills and education levels (Obama, 2009).

Chapter Summary

The review of literature presented in Chapter II included a discussion on several of the ground-breaking foundational studies used when dealing with issues of employability and workplace skills and competencies. Key skills were listed and highlighted to help add to the bases for this study. An overview of three employability studies that dealt with employability is provided. The review of literature is concluded with reference to three recent dissertation studies completed on the university level that dealt with employability and employability skills. These studies were major specific and dealt with both graduates, faculty, and in some cases current employers. The chapter concludes with a statement of the need for community college insight in the area of employability and employability skills.

CHAPTER III

METHOD OF THE STUDY

The purpose of this study was to assess the perceptions of community college students regarding the importance of identified employability skills and their perceived level of competence at performing those skills. This chapter describes the method and procedures that were used to conduct the study. The chapter includes the following sections: research design, population, instrumentation, validity and reliability, data collection, and data analysis.

Research Design

The researcher used a comparative, non-experimental research design to conduct the study. Survey method was used to assess student perceptions of the importance of identified employability skills and their level of perceived competence at performing the skills. According to Gall, Gall, and Borg (2003), "the purpose of a survey is to use questionnaires or interviews to collect data from a sample that has been selected to represent a population to which findings of the data analysis can be generalized" (p. 223). Surveys are used to determine specific characteristics of a group. They provide a way to find out how respondents distribute themselves on one or more variables (Fraenkel & Wallen, 2009).

Population

The researcher surveyed students at a rural Mississippi community college. Students that were eligible to graduate, from both the academic and career technical programs, were invited to participate in the survey. There were 360 students who were eligible for degree or certificate completion for the spring 2013 term. The researcher was only interested in responses from the students who were eligible to graduate, as the research study is concerned with perceptions upon possible entry into the workforce after being exposed to higher education settings.

Prior to beginning the study the researcher sought the approval of Mississippi State University's Institutional Review Board for the protection of human subjects. All forms and approvals were completed and returned before any data were collected.

Instrumentation

The researcher requested permission to use a survey used in a previous dissertation at the University of Southern Mississippi (see Appendix A). Griffin's (2012) *Survey of Employability Skills* was modified to include a measure for student perceptions on the level of importance of the listed employability skills and their perceived competence levels. The survey was designed to measure the perceived employability skills of students in manufacturing programs across the state of Mississippi. The survey has questions and measures that deal with the presence of employability instruction within the manufacturing curriculum at the various universities; the current study was not concerned with this element, therefore this portion was eliminated. Scales that measure faculty perceptions and attitudes were also eliminated in the current study. The survey used for this study is divided into three sections (see Appendix B). Section I asks for

demographic information including earned hours and program track. Section II deals with the levels of perceived importance of the skills listed. Section III requests information on perceived competence levels with the listed employability skills.

Specific employability skills are listed and defined in Sections II and III. With the exception of Section I, each of the sections used a 4-point Likert-type scale. All respondents were asked to indicate how important each skill is and to rate themselves on their competence with the skill. Section II rankings were identified as (1) Not Important, (2) Somewhat Important, (3) Important, and (4) Very Important. The ranking for Section III were (1) Do Not Possess, (2) Somewhat Possess, (3) Possess, and (4) Fully Possess.

Table 2 is adopted from Griffin (2012). The table helps to clearly identify the skills that were addressed in the modified version of Griffin's survey. All 10 of the skills are listed, and a working definition for the skill is provided.

Table 2

Skills Addressed in Survey of Employability Skills

Skills	Definition
Teamwork	The ability to work collaboratively with others from diverse backgrounds (Williams, 1999)
Problem Solving	The ability to recognize and define problems, invent and implement solutions, and track and evaluate results (Portway & Lane, 1998)
Verbal Communications	The ability to clearly express information in speaking (Williams, 1999)
Written Communication	The ability to clearly express information in writing (Williams, 1999)
Critical Thinking	The ability to make decisions, consider risks, and generate alternative and innovative ideas
Customer Service	The ability to effectively assist and provide quality service to those who patronize a business
Supervisory & Management	The ability to influence subordinate to enhance their productivity, also includes ability to effectively coordinate and control resources
Interpersonal Skills	The ability to interact effectively with others with sensitivity and skill
Change Readiness	The ability to accept, prepare for, and handle organizational change
Project Management	The ability to prioritize competing objectives an achieve project goals on time, within budget, and according to specifications

Adopted from Griffin, 2012

Validity and Reliability

According to Fraenkel and Wallen (2009), validity is defined as referring to the appropriateness, correctness, meaningfulness, and usefulness of the specific inferences researchers make based on data collected. In order to maintain validity, as a pilot test, Griffin (2012) shared the instrument with a group of students to determine any difficulties in understanding the instrument. No difficulties were noted in understanding the survey (Griffin, 2012). The audience for the current study differed from Griffin's audience in that the current study was conducted to assess perceptions from community college students. The researcher shared the survey with an expert panel of workforce development personnel/workforce educators to determine any difficulties in understanding the instrument and its relevance to workforce readiness and employability. The panel was asked to complete a validity questionnaire to help ascertain the content validity of the survey. Upon reviewing the responses from the panel, there were no notable issues with the content of neither the survey nor the terms therein. A copy of the validity questionnaire is located in Appendix C.

It is also important to establish the reliability of scores from an instrument when conducting a research study. Fraenkel and Wallen (2009) identify reliability as a means to measure the consistency of instrument results. Both the consistency of scores or answers from one administration of an instrument to another, and from one set of items to another, are important factors when considering the importance of reliability. Griffin (2012) used Cronbach's alpha to estimate reliability. Cronbach's alpha is "a general formula for estimating internal inconsistency based on a determination of how all items on a test relate to all other items and to the total test" (Gay & Airasian, 2003, p. 386). It

is suggested that an alpha value of .70 is necessary for scores to be considered reliable (Gay & Airasian, 2003). Griffin (2012) reported reliability at the alpha value of .99. Because the survey was moderately modified for the present study, reliability was re-estimated using Cronbach's alpha. For this study reliability for the importance scores was estimated as .94 and for the competence scores as .87. Both values are well above the .70 value needed for research purposes.

Data Collection

Prior to the beginning of the data collection, approval from Mississippi State University's Institutional Review Board (IRB) for the protection of human subjects was received by the researcher. The approval letter is located in Appendix D**.** The delivery method chosen in this study for data collection was electronic survey. The survey was created using the functionalities offered by SurveyMonkey™. Administration of the survey was facilitated internally to ensure that the institution did not violate student privacy by distributing student email addresses. A copy of the initial email and survey link are located in Appendix E. Only those students who were graduation-eligible were of interest for this research study, so the survey includes a question that asked students about their number of earned hours to help disqualify student responses that should not be considered in the data analysis phase. The survey link was active and open for one month. Once the surveys were completed, responses were coded and exported into an Excel spreadsheet, and from the spreadsheet, the data were loaded into IBM *SPSS version 20.0.*

Data Analysis

Data collected were compiled and analyzed using IBM *SPSS version 20.0.* Descriptive statistics were used to analyze the study's research questions. Means, standard deviations, percentages, and frequencies were used to report on research questions 1 and 2. Since the data are ordinal in nature, the Mann-Whitney procedure was used to compare responses of academic students and career technical students for questions 3 and 4. To analyze the responses for question 5 the researcher used Spearman rho correlation to detect the relationship between student's ratings of importance of employability skills and their ratings of their competence at performing those skills. Analysis details and the study's findings are presented in Chapter IV.

Chapter Summary

Chapter III presented a discussion of the survey research design used in this study, and the participants of the study were identified. The questionnaire used was defined along with the components of the instrument. The validity and reliability of the instrument were both discussed. Procedures for data collection and analysis were discussed. The chapter concluded with specifics on the study's data collection procedures.

CHAPTER IV

ANALYSIS OF DATA

This chapter summarizes the findings of the survey research conducted for this study. The study assessed the perceptions of graduation-eligible students at a rural Mississippi community college regarding their employability based on several identified employability skills. Upon obtaining IRB approval the researcher created a link to the survey were students were given a four week time-frame to complete the *Survey of Employability Skills*. The population for this study consisted of 360 graduation-eligible students. Of the participants, 124 responded, yielding a response rate of 34.4%. Of the 124, there were 24 who had to be eliminated because of missing data, or other research disqualifiers. This analysis focused on the 100 subjects who met the research requirements and completed the survey. Section I of the survey instrument was used for analysis of the demographics of the participants. The participants were asked to identify their campus, number of earned hours, and program track. This information is organized in Table 3.

Table 3

Frequencies and Percentages on Campus and Program Track

Variable	Frequency	Percentage
Campus		
Campus I	48	48.0
Campus II	17	17.0
Campus III	33	33.0
No Response	2	2.0
Program Track		
Academic	65	65.0
Career Technical	35	35.0

The findings shown in Table 3 indicate that a majority of the respondents (48%) were students of Campus I, 17% of the participants were associated with Campus II; while 33% of the participants indicated affiliation with Campus III. Over one-half (65%) of the participants were enrolled in an academic track curriculum, while 35% of the participants were enrolled in a career technical program. The respondents were fairly representative of the population in which this study was interested. Of the 360 students who were invited to participate in the study, 69% were enrolled at Campus I, 21% at Campus II, and 10% at Campus III. In addition, 61% were academic track students, while 39% were career technical.

The study considered five research questions. The research questions for this study were as follows:

1. What employability skills do students of academic and career technical programs perceive to be of greatest importance in today's workforce as measured by the Survey of Employability Skills?
2. How do students of academic and career technical programs rank their competence at performing employability skills as measured by the Survey of Employability Skills?
3. Are there differences in employability skills perceived to be of greatest importance in today's workforce as perceived by academic program students and career technical program students on the Survey of Employability Skills?
4. Are there differences in competence at performing employability skills as perceived by academic program students and career technical program students on the Survey of Employability Skills?
5. Do relationships exist between academic and career technical program students' perceptions regarding their competence at performing employability skills and those employability skills perceived to be of greatest importance in today's workforce as measured by the Survey of Employability Skills?

Examination of Research Question One

Section II of the *Survey of Employability Skills* was used to examine Research Question 1. Respondents were asked to select the number that best describes the degree

to which they believe each of the defined skills are important in today's workplace. Participants responded to the question using a 4-point Likert-type scale ranging from (1) Not Important, (2) Somewhat Important, (3) Important, and (4) Very Important. Respondents as an overall group rated each of the employability skills as being important. All ten skills had a mean score above 3.00.

Table 4 helps illustrates the skills that participants perceived to be of greatest importance. Academic track students listed verbal communication (*M*=3.78) as the skill of greatest importance. Career technical participants identified project management (*M*=3.75) of greatest importance. Critical thinking (*M*=3.77) is identified as the second most important of the listed skills for academic track students. Career technical students identified verbal communication (*M*=3.72) as the second most important skill. For academic track students, written communication and interpersonal skills (both *M*=3.70) were third most important. Career technical students reported written communication and problem solving (both *M*=3.71) as third most important. Both academic and career technical students identified supervisory skills (*M*=3.55; *M*=3.50) as the least important of the skills listed on the *Survey of Employability*.

Table 4

Means and Standard Deviations for Importance Responses

Importance	Academic (*n*=65)		Career Technical (*n*=35)		Total (*N*=100)	
Employability Skill	Mean	St. Dev	Mean	St. Dev	Mean	St. Dev
Verbal Comm.	3.78	.42	3.72	.59	3.76	.49
Critical Thinking	3.77	.48	3.68	.67	3.73	.56
Written Comm.	3.70	.47	3.71	.54	3.70	.49
Project Manag.	3.68	.51	3.75	.65	3.70	.56
Problem Solving	3.69	.64	3.71	.66	3.70	.64
Interpersonal	3.70	.55	3.68	.67	3.69	.55
Teamwork	3.65	.60	3.63	.72	3.65	.60
Customer Service	3.69	.61	3.57	.68	3.64	.61
Change Readiness	3.62	.68	3.64	.73	3.63	.68
Supervisory	3.55	.72	3.50	.79	3.53	.72

Examination of Research Question Two

Section III of the *Survey of Employability Skills* was used to examine Research Question 2. Respondents were asked to select the number that best describes the degree to which they believe they possess the defined skills. Participants responded to the question using a 4-point Likert-type scale ranging from (1) Do Not Possess, (2) Somewhat Possess, (3) Possess, and (4) Fully Possess. Respondents as an overall group rated each of the employability skills as being possessed. All 10 skills had a mean score above 3.00.

Table 5 presents the skills that students perceived that they possess and their competency at performing those skills. Academic track students reported that they possess teamwork skills (*M*=3.54) at a higher level than any of the other skills. The analysis revealed that interpersonal skills (*M*=3.49) are the next highest in the way of competence or levels of possession. Project management and written communication skills (both *M*=3.42) are reported next for academic track students. Career technical students report that they possess interpersonal and project management skills (both *M*=3.69) at a higher level than any of the other skills. Customer service skills (*M*=3.60) are reported as next highest. Both academic and career technical students report that they possess supervisory skills (*M*=3.17; *M*=3.30) at the lowest level of all the skills reported. After supervisory skills, academic students report problem solving skills (*M*=3.29) as the skills of least possession. Career technical students report, after supervisory skills, verbal communication (*M*=3.38) as the skill set of least possession.

Table 5

Means and Standard Deviations for Competence Responses

Competence	Academic (*n*=65)		Career Technical (*n*=35)		Total (*N*=100)	
Employability Skill	Mean	St. Dev	Mean	St. Dev	Mean	St. Dev
Teamwork	3.54	.50	3.43	.63	3.50	.55
Interpersonal	3.49	.64	3.69	.54	3.56	.61
Project Manag.	3.42	.57	3.69	.47	3.40	.55
Written Comm.	3.42	.60	3.55	.63	3.46	.61
Critical Thinking	3.41	.60	3.59	.57	3.47	.59
Customer Service	3.38	.66	3.60	.62	3.46	.65
Verbal Comm.	3.35	.71	3.38	.78	3.36	.73
Change Readiness	3.32	.70	3.55	.63	3.40	.68
Problem Solving	3.29	.57	3.59	.57	3.40	.59
Supervisory	3.17	.73	3.30	.92	3.22	.80

Examination of Research Question Three

Research Question 3 asked whether or not students from the two groups (academic or career technical) rated the importance of each skill differently based on whether they were in an academic or career technical program. Section II of the *Survey of Employability* was used to answer this question. In order to address this question, since the data are ordinal in nature, the Mann-Whitney U statistic was used. The Mann Whitney is used for ordinal scales (Siegel & Castellan, 1988). In Section II of the *Survey*

of Employability the participants were asked to rate the importance of each skill. A 4-point Likert-type scale was used in this section of the survey. The scale for this section was formatted as follows: (1) Not Important, (2) Somewhat Important, (3) Important, and (4) Very Important.

Because all of the comparisons yielded a probability of greater than .05 on any of the employability skills, no statistically significant difference was detected between the two groups. The skills of teamwork (U= 703.5, Z=-.397, p=.692), problem solving (U=611.0, Z=-.293, p=.770), and verbal communication (U=652.5, Z=-.000, p=1.000) were the top three listed variables. Looking at the bottom portion of the Table 6 the results are as follows: project management (U= 656.5, Z= -1.114, p= .265), change readiness (U= 606.5, Z= -.341, p= .733), and interpersonal (U= 594.5, Z= -.319, p= 750). Table 6 provides a listing of the employability skills, the Mann-Whitney U, Z, and the significance level for each of the skills.

Table 6

Program Track Differences on Importance Scale

Employability Skill	Mann-Whitney *U*	*Z*	Asymp. Sig. (*p*)
Teamwork	703.50	-.397	.692
Problem Solving	611.00	-.293	.770
Verbal Comm.	652.50	-.000	1.000
Written Comm.	577.00	-.377	.707
Critical Thinking	576.00	-.421	.674
Customer Service	611.50	-.853	.394
Supervisory	645.50	-.163	.871
Interpersonal	594.50	-.319	.750
Change Readiness	606.50	-.341	.733
Project Manag.	656.50	-1.114	.265

Examination of Research Question Four

Research Question 4 looked at whether or not students from academic and career technical programs ranked their level of competence differently by whether they were in an academic or career technical program. The Mann Whitney U was used to analyze the results, since the data are ordinal in nature (Siegel & Castellan, 1988). Section III of the *Survey of Employability* is used to answer this research question. A 4-point Likert-type scale was used for the answer choices in Section III. The scale is formatted as follows: (1) Do Not Possess, (2) Somewhat Possess, (3) Possess, and (4) Fully Possess.

Two of the skills from this section were statistically different ($p<.05$). For both of these skills career technical students were higher in their ratings (that is, career technical students indicated that they possess the skills better than their academic counterparts). Problem solving ($U= 573$, $Z= -2.046$, $p= .041$) and project management ($U=547.5$, $Z=-2.30$, $p=.021$) were the skills that yielded a statistically significant different result. The other eight variables are reported as follows: teamwork ($U= 755$, $Z= -.587$, $p= .557$), verbal communication ($U= 722.5$, $Z= -.341$, $p= .733$), written communication ($U= 665.5$, $Z= -1.128$, $p= .259$), critical thinking ($U= 657.5$, $Z= -1.358$, $p= .175$), customer service ($U= 643$, $Z= -1.623$, $p= .105$), supervisory ($U= 678.5$, $Z= -1.051$, $p= .293$), interpersonal ($U= 619.5$, $Z= -1.410$, $p= .158$), and change readiness ($U= 630$, $Z= -1.492$, $p= .136$). Table 7 provides a listing of the employability skills, the Mann-Whitney U, Z, and the significance level for each of the skills.

Table 7

Program Track Relationships of Competence and Importance

Employability Skill	Mann-Whitney U	*Z*	Asymp. Sig.(*p*)
Teamwork	755.00	-.587	.557
Problem Solving	547.50	-2.300	.021*
Verbal Comm.	722.50	-.341	.733
Written Comm.	665.50	-1.128	.259
Critical Thinking	657.50	-1.358	.175
Customer Service	643.00	-1.623	.105
Supervisory	678.50	-1.051	.293
Interpersonal	619.50	-1.410	.158
Change Readiness	630.00	-1.492	.136
Project Manag.	573.00	-2.046	.041*

*$p<.05$

Examination of Research Question Five

Research Question 5 sought to determine whether relationships existed between academic and career technical students' perceptions regarding their competence with the skills and those skills perceived to be of greatest importance. The Spearman's rho technique was used to address this question (Siegel & Castellan, 1988). Table 8 is included to help illustrate the results yielded.

Table 8 outlines each of the skills, the correlation, and the significance levels. All skills yielded a significant positive relationship. The more importance placed on a skill, the more the respondent indicated that they possessed the skill. Conversely, the less

importance placed on a skill the lower the degree of possession indicated by the respondent. The results of the analysis for this question are as follows: teamwork (r_s value of .413, $p < .001$); problem solving(r_s=.351, p=.003), verbal communication (r_s=.424, p<.001), written communication (r_s= .307, p=.010), critical thinking(r_s=.389, p=.001), customer service (r_s=.437, p<.001), supervisory (r_s=.315, p=.007), interpersonal (r_s=.317, p=.008), change readiness (r_s=.333, p=.002), and project management (r_s=.287, p=.011). There was a significant positive relationship, as stated above, between perceived importance of and competence with all employability skills.

Table 8

Correlations of Importance and Competence Ratings

Employability Skill	Spearman Correlation Coefficient	Sig. Level
Teamwork	.413	<.001*
Problem Solving	.351	.003*
Verbal Comm.	.424	<.001*
Written Comm.	.307	.010*
Critical Thinking	.389	.001
Customer Service	.437	<.001*
Supervisory	.315	.007*
Interpersonal	.317	.008*
Change Readiness	.333	.002*
Project Manag.	.287	.011*

*p<.05

Other Results

Comparisons were also made between the perceived importance and possession of the skills. The Wilcoxon technique was used since the data are not of interval strength (Siegel & Castellan, 1988). Tables 9 and 10 are included to help illustrate the results yielded.

For academic students, all skills showed statistically significant differences, except teamwork, which was p=.166. All other skills showed significance of less than .05. The skills are as follows: verbal communication (p<.001), critical thinking (p=.008), interpersonal (p=.048), written communication (p=.050), customer service (p=.013),

problem solving (p=.00), project management (p=.005), change readiness (p=.001), and supervisory (p=.018). Each of the skills showed that students rated them, based on mean score, higher on the scale for importance than on the scale for possession of the skills. For each of the skills, other than teamwork, the probability (p) is < .05. Academic program students believe their competence in the skills is less than the importance of the skills based on the reported mean(s).

Table 9

Academic Student Comparisons of Importance and Competence

Employ. Skill	Importance(M)	Possession(M)	Difference	Asym. Sig.
Verbal Comm.	3.78	3.35	.43	<.001*
Critical Thinking	3.77	3.41	.36	.008*
Interpersonal	3.70	3.49	.21	.048*
Written Comm.	3.70	3.42	.28	.050
Customer Service	3.69	3.38	.31	.013*
Problem Solving	3.69	3.29	.40	.001*
Project Manag.	3.68	3.42	.26	.005*
Teamwork	3.65	3.54	.11	.166*
Change Readi.	3.62	3.32	.30	.001*
Supervisory	3.55	3.17	.38	.018*

*p<.05

When comparing perceived importance and perceived competence, none of the comparisons for career technical students yielded a statistically significant difference. In

each instance the probability (p) is greater than .05 (p>.05). The skills are listed in Table 10 as follows: verbal communication (p=.061), critical thinking (p=.248), interpersonal (p=.861), written communication (p=.187), customer service (p=.852), problem solving (p=.236), project management (p=.405), teamwork (p=.090), change readiness (p=.463), and supervisory (p=.149). For career technical students, these data indicate that their perceived competency is similar to the perceived importance of each skill.

Table 10

Career Technical Students Comparisons of Importance and Competence

Employ. Skill	Importance(*M*)	Possession(*M*)	Difference	Asym. Sig.
Verbal Comm.	3.72	3.38	.34	.061
Critical Thinking	3.68	3.59	.09	.248
Interpersonal	3.68	3.69	.01	.861
Written Comm.	3.71	3.55	.16	.187
Customer Service	3.57	3.60	.03	.852
Problem Solving	3.71	3.59	.12	.236
Project Manag.	3.75	3.69	.06	.405
Teamwork	3.63	3.43	.20	.090
Change Readi.	3.64	3.55	.09	.463
Supervisory	3.50	3.30	.20	.149

Chapter Summary

The population for this study consisted of 360 students from a rural Mississippi community college. A total of 100 valid surveys were returned, yielding a response rate of 34.4%. The results of the surveys were collected and compiled in SurveyMonkey™. Once the data collection phase ended, the data were analyzed using IBM *SPSS version 20.0*.

Chapter IV presented an overview of the descriptions, statistical analyses, and results of the study. Descriptive statistics including means and standard deviations were used to summarize the results of the survey. Further, the Mann Whitney U, Spearman's rho, and the Wilcoxon's technique(s) were also used to help complete the data analysis phase. The summary, conclusions, and recommendations are presented in Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter includes a discussion of the summary, conclusions, and recommendations of the research study. An overview of the research study including the collected data and conclusions from their analysis is provided; the limitations for the study are also included in this chapter.

Summary

Previous studies, dating as far back as the early 1980s, shed light on the existence of a skills gap in the nation's communities (Beaulieu & Mulkey, 1995). According to Moore (2001) a skills gap exists when there is a mismatch between the skills acquired in school and those required in jobs created by today's economy. In many instances employers do not believe that higher education properly develops employability skills. This belief is supported by the studies across academic discipline examining employability skills in various settings (Gardner, 1997; Griffin, 2012; McClain & McClain, 2007; Ogbeide, 2006; Robinson, 2006).

In this study the perceptions of community college students regarding their employability were assessed based on the perceived importance of identified employability skills and their perceived level of competence at performing those skills. Since employability skills are important in relationship to hiring experiences, it is

important to gain insight on student perceptions of their employability based on these skills. A review of the literature revealed a gap in the availability of employability studies on the community college level, and further in the state of Mississippi.

This study used a comparative, non-experimental survey research design. One hundred graduation-ready students responded to the survey invitation. The study yielded a response rate of 34.4%. The survey was composed of demographic questions about the students' earned hours, program track, and campus affiliation. Parts II and III of the survey dealt with student perceptions of the importance of the identified skills and their perceived competence levels at performing each of the skills. Respondents were able to complete the survey online using SurveyMonkey™. The collected data were analyzed and interpreted using IBM *SPSS version 20.0*.

The research study was guided by five research questions. Those questions are as follows:

1. What employability skills do students of academic and career technical programs perceive to be of greatest importance in today's workforce as measured by the Survey of Employability Skills?
2. How do students of academic and career technical programs rank their competence at performing employability skills as measured by the Survey of Employability Skills?
3. Are there differences in employability skills perceived to be of greatest importance in today's workforce as perceived by academic program students and career technical program students on the Survey of Employability Skills?

4. Are there differences in competence at performing employability skills as perceived by academic program students and career technical program students on the Survey of Employability Skills?
5. Do relationships exist between academic and career technical program students' perceptions regarding their competence at performing employability skills and those employability skills perceived to be of greatest importance in today's workforce as measured by the Survey of Employability Skills?

Descriptive statistics were used to analyze the study's data. Means, standard deviations, percentage, and frequencies were used to answer research questions 1 and 2. Since the data were ordinal in nature, the Mann-Whitney procedure was used to report on research questions 3 and 4. For the same reason, Spearman rho correlations were used to detect relationships to address research question 5. In addition, the Wilcoxon technique was used to determine differences between students' perceptions of importance and competence levels for both academic and career technical students.

Conclusions

Conclusion 1 based on research question 1

Respondents as an overall group rated each of the employability skills as being important. All 10 skills have a mean score above 3.00. Academic track students perceive verbal communication (*M*=3.78), critical thinking (*M*=3.77), written communication (*M*=3.70), and interpersonal (*M*=3.70) skills as those of greatest importance. Conversely, career technical track students perceive project management (*M*=3.75), verbal communication (*M*=3.72), written communication (*M*= 3.71), and problem solving

(*M*=3.71) skills as those of greatest importance. It could be concluded that academic track students are receiving more instruction that requires critical thinking and interpersonal skill enhancement, while career technical students may be receiving instruction that may promote problem solving and project management. This is a reasonable conclusion as career technical programs tend to be more hands on in nature versus their academic opposite. Interpersonal skills are likely more prevalent in academic programs, as students tend to be required to participate in more group work type activities. Interestingly, academic track (*M*=3.55) and career technical (*M*=3.50) students both rank supervisory skills as the skill set of least importance. This suggests that management skills are not thought to be important to students upon initial entry into the workforce. Griffin (2012) revealed that all skills were perceived to be at least important, by both the faculty and students that were surveyed for the study.

Conclusion 2 based on research question 2

Respondents as an overall group indicated that they possessed each of the employability skills. All 10 skills had a mean score of above 3.00. Academic track students reported the possession, based on competence levels, of teamwork (*M*=3.54), interpersonal (*M*=3.49), project management (*M*=3.42), written communication (*M*=3.42), critical thinking (*M*=3.41), customer service (*M*=3.38), verbal communication (*M*=3.35), change readiness (*M*=3.32), problem solving (M=3.29), and supervisory (*M*=3.17). Career technical students reported the possession, based on competence levels, of interpersonal (*M*=3.69), project management (*M*=3.69), customer service (*M*=3.60), critical thinking (*M*=3.59), problem solving (*M*=3.59), teamwork (*M*=3.43), written communication (*M*=3.55), verbal communication (*M*=3.38), change readiness

(*M*=3.55), and supervisory (*M*=3.30). These data suggest that academic students tend to think that the skills that they feel are of greatest importance are in fact among the skills that they are in greater possession of. A similar suggestion is made for career technical students. The skills that were perceived as important are among the skills that were of greater possession. Just as with the importance ranking, supervisory skills were rated of least possession by both academic (*M*=3.17) and career technical (*M*=3.30) students. This suggests that students may not be receiving notable instruction in the area of management skills.

Conclusion 3 based on research question 3

Based on the responses given by the survey participants, no statistically significant difference was detected between the groups on perceived importance of employability skills needed in today's workforce. This suggests that students across both spectrums perceive that the same skills are important to some degree.

Conclusion 4 based on research question 4

Based on the responses given by the survey participants, two of the skills are statistically different, yielding a probability of lesser than .05 ($p<.05$). For both of these skills career technical students were higher in their possession ranking. This suggests that career technical students perceive that they possess the skills better than their academic counterparts. The two skills were problem solving ($p=.021$) and project management ($p=.041$), respectively. This suggests that career technical students are possibly receiving more instruction in these two areas, and course work/requirements could demand the mastering of these two skills at greater levels than do they for the other

skills. Academic track student are possibly not receiving these same demands as it relates to these two skills.

Conclusion 5 based on research question 5

Based on the responses given by the survey participants, all skills have a significant positive relationship, between perceived importance and competence. This is to say, the more importance placed on a skill the more the respondent indicated that they possessed the skill. This suggests that if students felt that a skill was important, by some means they were finding ways to polish their competence levels with the skill.

Conclusion 6 based on other findings

This section of the study compared the skills based on importance and possession. The section helps us to better understand how prepared students feel they are for entry into the workforce. For academic track students, all skills except teamwork (p=.166) yielded a statistically significant difference result. Students had higher perceptions of skill importance than they did for skill possession. This suggests that although students recognize the importance of the given skills, they may not be receiving adequate instruction or course demands to equate to proper possession of the skill or levels of comfort in performing the skill. For career technical students, none of the skills yielded a statistically significant difference. This suggests that career technical students equate their competence and possession with the level of perceived importance.

Limitations

The following limitations are listed as they may have affected the study in some way. Particularly, data collection and data analysis phases of the research project could have been impacted in some way by the below listed factors.

- The study focused on the self-perceptions of respondents, which may or may not have produced accurate data. People tend to reflect positively on personal knowledge, attitudes, and behavior when self-reporting (Cook & Campbell, 1979).
- The study was only concerned with student perceptions at the completion of their program of study without consideration for perceived changes or growth over the course of complete matriculation.
- The study was conducted at the end of the term, which may have inhibited response rates, because of increased workloads and deadlines that are normal at the end of the semester.
- The study elicited participation from students that were enrolled in credit seeking programs only. Students who were enrolled in developmental or workforce development programs were not studied.

Recommendation for Policy and Practice

The following recommendations are offered for policy and practice.

- Curriculum should be reviewed to ensure that the skills that are being demanded in the workforce are in fact the skills that are being taught inside the classroom and labs.

- Programs should be modified to address the deficiencies in the area of supervisory/management skills. Students should receive some instruction on front-line management techniques.
- Where the option to add new courses to the program(s) exists, administrators should consider adding a course that specifically focuses on professional development and workforce preparation (e.g., seminars, capstones, and internships).

Recommendations for Future Research

A review of the literature revealed no study to date within the state of Mississippi specifically capturing the employability perceptions of students from the community college sector. This research adds to the body of literature regarding employability skills and fills a gap in the literature regarding the status of employability skills in Mississippi's community college system. Future research should focus on the perceptions of program graduates and their immediate supervisors upon employment after graduation. Further, future research should be centered on the skills that are required for entry level employment and graduates' preparation for the workforce. Additionally, future research should focus on the entire community college system in Mississippi, and possibly across the enter region. Other opportunities for future research studies include exploring 1) faculty perceptions of graduate readiness, 2) performance test based on workforce expectations, 3) how other factors such as extracurricular activities, sorority/fraternity involvement, and social networking influence perceptions on importance and competency with employability skills, 4) the inclusion of the workforce program students in the

researched population, and 5) the consideration of race, gender, and socio-economic factors.

REFERENCES

Barnett, R. (2004). Learning for an unknown future. *Higher Education and Development*, *23*, 247-260.

Beaulieu L. J., & Mulkey, D. (1995). *Investing in people*: *The human capital needs of rural America*. Boulder, CO: Westview Press.

Becker, G. S. (1993). *Human capital*: *Theoretical and empirical analysis with special reference to education*. (3rd ed.). Chicago: University of Chicago Press.

Blakely. E. J., & Bradshaw, T. K. (2002). *Planning local economic development*: *Theory and practice*. (3rd ed.). San Francisco: Jossey-Bass.

Brown, P., Hesketh, A., & Williams, S. (2003). Employability in a knowledge-driven economy. *Journal of Education and Work, 16*, 107-123.

Burghardt, C. (2009). *College graduates' perceptions of their use of teamwork skills: Soft skill development in Fort Hays State University Leadership Education*. (Unpublished doctoral dissertation). Kansas State University, Manhattan, Kansas.

Carnevale, A., Gainer, L. & Meltzer, A. (1990). *Workplace basics training manual. A publication of the American society for training and development*. San Francisco, CA: Jossey-Bass.

Casner-Lotto, J., & Barrington, L. (2006). *Are they really ready to work*? *Employers' perceptions on the basic knowledge and applied skills of new entrants to the 21st century U.S. workforce* (The Conference Board, Partnership for 21st Century Skills, Corporate Voices for Working Families, and Society for Human Resource Management). Retrieved July 27, 2012, from http://www.conference-board.org/pdf_free/BED-06-Workforce.pdf

Commission on the Skills of the American Workforce. (1990). *America's choice: High skills or low wages!* NY: National Center for Education and the Economy.

Cook, T., & Campbell, D. (1979). *Quasi-experimentation: Design and analysis issues*. Boston, MA: Houghton-Mifflin Company.

Council of Economic Advisors. (2009). *Preparing the workers of today for jobs of tomorrow*. Retrieved February 12, 2013 from http://www.whitehouse.gov/assets/documents/Jobs_of_the_Future.pdf

Drucker, P. (1993). *Post-capitalist society*. London: Harper Collins.

Falk, W., & Lyson, T. A. (1988). *High tech, low tech, no tech*: *Recent industrial and occupational change in the South*. Albany, NY: State University of New York Press.

Flora, C. & Flora, J. (2008). *Rural communities: Legacy + change*. (3rd ed.). Boulder, CO: Westview Press.

Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education*. (7th ed). New York, NY: McGraw-Hill.

Franco, J. V. (2009, September 22). Upstate can succeed. *The Saratogian*. p. 1A.

Friedman, T. L. (2005). *The world is flat*. (2nd ed.). New York: Farrar, Straus and Giroux.

Gall, M. D., Gall, J. P. & Borg W. R. (2003). *Educational research: An introduction*. (7th ed.). Boston, MA: Allyn and Bacon.

Gardner, P. D. (1997). Prepared to perform? Employers rate workforce readiness of new graduates. *Journal of Career Planning & Employment*, *57*, 32-56.

Gay, L. R., & Airasian, P. (2003). *Educational research: competences for analysis and applications*. (7th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Gray, K. C., & Herr E. L. (1998). *Workforce education: The basics*. Needham Heights, MA: Allyn & Bacon.

Griffin, M.Y. (2012). *Manufacturing Mississippi's Workforce: An assessment of employability skills as perceived by faculty and senior students of four year manufacturing related degree programs.* (Unpublished doctoral dissertation). University of Southern Mississippi, Hattiesburg, Mississippi.

Grummon, P. T., (1997). Assessing students for workplace readiness. *CenterFocus*. *15* Retrieved August 27, 2013 from http://ncrve.berkeley.edu/CenterFocus/cf15.html

Hesketh, A. (2000). Recruiting an elite? Employers' perceptions of graduate employability and training. *Journal of Education and Work, 13*, 245-271.

Hettich, P. I., Landrum, R. E., & Wilner, A. (2010). Alumni perceptions of workforce readiness. *Teaching of Psychology*, *37*, 97-106.

Hillage, J., & Pollard, E. (1998). *Employability: Developing a framework for policy analysis*. DfEE Research Briefing No. 85. London, DfEE. Retrieved July 10, 2012 from http://www.education.gov.uk/publications/eOrderingDownload/RB85.pdf

Huba, M., & Freed, J. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning.* Needham Heights, MA: Allyn & Bacon.

Johnston, W. (1987). Workforce *2000: Work and workers for the twenty-first century*. Indianapolis, IN: Hudson Institute.

Katsinas, S. G. (2007). Rural community colleges are the land-grant institutions of this century. *Chronicle of Higher Education, 54*, 71.

McClain, M. A., & McClain C. R. (2007). Allied health care employee's workplace skills and competencies: Are they prepared? *Career and Technical Education Research, 32*, 99-113.

McLester, S., & McIntire T. (2006). The workforce readiness crisis: We're not turning out employable graduates nor maintaining our position as a global competitor—Why? *Technology & Learning, 27*, 22-29.

Moore, D. (2001). *NCRVE gleaning from research on the skills gap.* Retrieved June 25, 2012 from http://vocserve.berkeley.edu/CW81/Gleanings.html

Obama, B. H. (2009, July 14). *Remarks by the President on American Graduation Initiative* [Speech transcript]. Retrieved September 19, 2012 http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-the-American-Graduation-Initiative-in-Warren-MI

Ogbeide, G. (2006). *Employability skills and students' self-perceived competence for careers in the hospitality industry*. (Unpublished doctoral dissertation). University of Missouri- Columbia, Columbia, Missouri.

O'Neil, J. (1997). How business search for qualified applicants: Trying to bridge the skills gap. *Personnel Journal*, *71*, 1-2.

Overtoom, C. (2000). Employability Skills: An update. *ERIC Digest*, 220.

Parker, A. (1998). *The end of routine work and the need for career transcript*. Paper presented at the Hudson Institute's Workforce 2020 Conference, Indianapolis, IN.

Pascarella, E., & Terenzini, P. (2005). *How college affects students: A third decade of research*. San Francisco: Jossey-Bass.

Paulson, K. (2001). Using competencies to connect the workplace and postsecondary education. *New Directions for Institutional Research, 110*, 41-54.

Peddle, M. T. (2000). Frustration at the factory: Employer perceptions of workforce deficiencies and training trends. *Journal of Regional Analysis & Policy, 30*, 23-40.

Robinson, J. (2006). *Graduates and employer perceptions of entry-level employability skills needed by agriculture, food and natural resources graduates*. (Unpublished doctoral dissertation). University of Missouri-Columbia, Columbia, Missouri.

Robinson, J. P. (2000). What are employability skills? *The Workplace, 5*, 1-3.

Schultz, T. W. (1961). *Investment in human capital*. Chicago: University of Chicago Press.

Secretary's Commission on Achieving Necessary Skills. (1991). *What work requires of schools: A SCANS report for America 2000.* Washington, DC: U.S. Department of Labor.

Shaffer, L. S. (1997). A human capital approach to academic advising. *National Academic Advising Association Journal*, *17*, 5-12.

Siegel, S., & Castellan N. (1988). *Nonparametric statistics for the behavioral sciences.* (2nd ed.). New York: McGraw-Hill Book Company Inc.

Synder, T. D., & Dillow, S. A. (2012). *Digest of education statistics 2011* (NCES 2012-15). Washington, DC: National Center for Education Statistics, Institute of Education Sciences.

Tetreault, P. (1997). Preparing students for work. *Adult Learning, 8*, 8-14.

Toffler, A. (1990). *Powershift: Knowledge, wealth, and violence at the edge of the 21st century*. New York: Bantam Books.

U.S. Bureau of Labor Statistics. (2010). *Fastest growing occupations: 2010-2020*. Washington, DC: Employment Projections Program. Retrieved June 18, 2011 from http://www.bls.gov/emp/ep-table-103htm

Voorhees, R. A., & Harvey, L. (2005). Workforce development and higher education. A strategic role for institutional research. *New Directions for Institutional Research, 128,* 5-12.

Williams, P. (1999). *Employability skills in the undergraduate business curriculum and job preparedness: Perceptions of faculty and final year students at five tertiary institutions.* (Unpublished doctoral dissertation). Andrews University, Berrien Springs, Michigan.

APPENDIX A

REQUEST AND PERMISSION TO USE SURVEY

Cortney R. Harris

Post Office Box 423 ♦ Meadville, MS 39653 ♦ (601) 384-0364 ♦ cortney369@yahoo.com

November 28, 2012

Mammie Griffin, PhD
Alcorn State University
Industrial Technology Building
1000 ASU Drive
Alcorn State, MS 39096

Dear Dr. Griffin:

Thank you for the time that you tool earlier this semester to discuss your writing experience with me. Currently I am completing my dissertation proposal at Mississippi State University, as mentioned in our conversation. I have found, as we briefly discussed, that the survey instrument used in your dissertation research closely aligns with my research interest. You may recall me mentioning wanting to look at the student's perceptions on the importance of employability skills, and their perceived levels of competence at performing those skills.

I am sending this letter as a formal request to modify your survey instrument to conduct my research on the *Perceptions of students at a rural Mississippi community college regarding their employability*. It would also be beneficial to me to look at and use the information that you may have on the reliability and validity of your instrument.

I look forward to hearing from you soon. If there is a need for additional information please let me know.

Allow me to thank you for your time and careful consideration of this request.

Respectfully submitted,

Cortney R. Harris
Doctoral Candidate
Mississippi State University

12/31/2012

• • •

Mamie Y. Griffin, PhD
Abu Dhabi Women's College
Abu Dhabi, UAE

Cortney Harris
Mississippi State University
Mississippi State, MS

Dear Cortney,

I have reviewed your request to use the "Survey of Employability Skills" instrument for your dissertation study. You have my full permission to use the instrument and make any modifications as needed.

Best wishes to you as you move forward in the dissertation process.

Regards,

Mamie Y. Griffin

Mamie Y. Griffin, PhD
Business Faculty
Abu Dhabi Women's College

APPENDIX B

SURVEY INSTRUMENT

Survey of Employability Skills

Please be reminded that your participation is completely voluntary.

By proceeding through to the survey you consent to participation.

The survey should take about 15 minutes to complete.

If there are any questions, please feel free to contact Cortney R. Harris at 601 384 0364 or by emailing crh141@msstate.edu. You may also contact Dr. Stephaine King at 662 325 0969 or by emailing sking@coiled.msstate.edu

Allow me to thank you for your time and participation in this study.

Please select the next button to proceed.

Thank You,

Cortney R. Harris
Doctoral Candidate
Mississippi State University

Section I- Survey of Employability Skills

Instructions: This survey is being conducted only on students that have earned a minimum of 62 hours, by the end of the spring 2013 term. Please read each section carefully and respond accordingly.

1. Which campus do you attend?

- ○ Campus 1
- ○ Campus 2
- ○ Campus 3

2. Do you have at least 62 hours of credit?

- ○ Yes
- ○ No

3. Which program track are you/were you enrolled?

- ○ Academic track (Course-work that leads to transfer)
- ○ Career-Technical (Course-work that leads to immediate employment)

Section II- Survey of Employability Skills

Select the response that best describes the degree to which you believe that the following skills are "important" for success in today's workplace.

*4. Select the choice that best identifies with you.

	Not Important	Somewhat Important	Important	Very Important
Teamwork: ability to work collaboratively with others from diverse backgrounds	○	○	○	○
Problem solving: ability to identify and critically assess problems and devise a plan of action for its solution	○	○	○	○
Verbal Communication: ability to clearly express information in speaking	○	○	○	○
Written Communication: ability to clearly express information in writing	○	○	○	○
Critical Thinking:ability to make decisions, consider risks and generate alternative and innovative ideas	○	○	○	○
Customer Service: ability to effectively assist and provide quality service to those who patronize a business	○	○	○	○
Supervisory & Management: ability to influence subordinates to enhance their productivity, also includes ability to effectiviey coordinate and control resources	○	○	○	○
Interpersonal Skills: ability to interact effectively with others with sensitivity skills	○	○	○	○
Change Readiness: ability to accept, prepare for, and handle change	○	○	○	○
Project Management: ability to achieve project goals on time, within budget and according to specifications	○	○	○	○

Section III- Survey of Employability Skills

Select the response that best describes the degree to which you feel you "possess" the following employability skills.

***5. Select the choice that best identifies with you.**

	Do Not Possess	Somewhat Possess	Possess	Fully Possess
Teamwork: ability to work collaboratively with others from diverse backgrounds	○	○	○	○
Problem solving: ability to identify and critically assess problems and devise a plan of action for its solution	○	○	○	○
Verbal Communication: ability to clearly express information in speaking	○	○	○	○
Written Communication: ability to clearly express information in writing	○	○	○	○
Critical Thinking:ability to make decisions, consider risks and generate alternative and innovative ideas	○	○	○	○
Customer Service: ability to effectively assist and provide quality service to those who patronize a business	○	○	○	○
Supervisory & Management: ability to influence subordinates to enhance their productivity, also includes ability to effectiviey coordinate and control resources	○	○	○	○
Interpersonal Skills: ability to interact effectively with others with sensitivity skills	○	○	○	○
Change Readiness: ability to accept, prepare for, and handle change	○	○	○	○
Project Management: ability to achieve project goals on time, within budget and according to specifications	○	○	○	○

Survey of Employability Skills

Thank you for participating in this survey. Only responses from students with a minimum of 62 credit hours will be used for this study.Your responses, in no way can be linked to you. If there are questions please contact Cortney Harris at 601.384.0364 or by emailing crh141@msstate.edu or Dr. Stephanie King at 662.325.0969 or by emailing sking@colled.msstate.edu

APPENDIX C

VALIDITY QUESTIONNAIRE

Survey of Employability Skills

Validity Questionnaire

Thank you for volunteering your time to assist me in the development of this survey. Your input is very important with respect to the survey itself and the development of my dissertation overall. Your willingness and consideration to participate in this study is greatly appreciated.

Please rate the included survey based on the following information:

1. Does the survey contain language that can be understood by students as they prepare to enter the work force?

   _____

2. Does the survey address specific and appropriate issues in the statements, as it relates to perceptions of importance and presence of employability skills?

   _____

3. Do you find any of the questions offensive or obtrusive?

   _____

4. Are there any questions that you would exclude from the survey?

   _____

5. Are there any other statements that you would include that are ***not*** a part of the survey?

   _____

6. Please make any other comments or suggestions about the survey below:_____

   _____

   _____

   _____

   _____

Please use additional paper to answer any of the questions if there is a need.

APPENDIX D

IRB APPROVAL

April 23, 2013

Cortney Harris

RE: HRPP Study #13-136. Perceptions of Students at a Rural Mississippi Community College on Workforce Readiness

Dear Ms. Harris:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 4/23/2013 in accordance with 45 CFR 46.101(b)(2). Continuing review is not necessary for this project. However, in accordance with SOP C1 03 Administrative Review of Applications, a new application must be submitted if the study is ongoing after 3 years from the date of approval. Additionally, any modification to the project must be reviewed and approved by the HRPP prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The HRPP reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU HRPP is in the process of seeking accreditation for our human subjects protection program. One of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the HRPP approved version of the consent form is used in the actual conduct of research. Your stamped consent form will be attached in a separate email. **You must use the wording of the stamped consent form for obtaining consent from participants.**

Please refer to your HRPP number (#13-136) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at lroberts@research.msstate.edu or call 662-325-2238.

Finally, we would greatly appreciate your feedback on the HRPP approval process. Please take a few minutes to complete our survey at http://www.surveymonkey.com/s/YZC7QQD.

Sincerely,

Leah Rodgers
Compliance Coordinator

cc: King, Stephanie (Advisor)

APPENDIX E

EMAIL SENT TO STUDENTS

Title of Research Study: Perceptions of Students at a rural Mississippi community college regarding their employability

I would like to ask you to participate in a research study. The study is being conducted as part of the requirements for my doctoral program at Mississippi State. If you participate in this study, you will be asked to complete a survey about your perceptions on your readiness to enter the workforce that will take about 15 minutes to complete. The survey will include questions about employability skills. First, you will be asked to tell us to what degree you think each skill is important, and then you will be asked to tell us to what degree you think you have that skill.

If you have questions about this research project, please feel free to contact Cortney R. Harris at 601 384 0364 or by emailing crh141@msstate.edu or Dr. Stephanie King at 662 325 0969 or by emailing sking@colled.msstate.edu.

Please understand that your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue your participation at any time without penalty or loss of benefits.

Please take all of the time that you need to read through this email and decide whether you would like to participate in this research study.

If you decide to participate, your completion of the research procedures indicates your consent. Please keep this page for your records.

Please click on the below link to proceed to the survey.

https://www.surveymonkey.com/s/employabilityskills2013

Thank you,

Cortney R. Harris

Cortney R. Harris
Doctoral Candidate
Mississippi State University