COLLEGE-READY, CAREER-READY OR CAREER- AND COLLEGE-READY: DO EDUCATION STAKEHOLDER PERCEPTIONS CREATE BARRIERS TO STUDENT ENGAGEMENT?

A Dissertation

presented to

the Faculty of the Graduate School

at the University of Missouri - Columbia

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

---

by

DAVID ANDREW RUHMAN

Dr. Barbara N. Martin, Dissertation Supervisor

December 2016

The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

COLLEGE-READY, CAREER-READY OR CAREER- AND COLLEGE-READY: DO EDUCATION STAKEHOLDER PERCEPTIONS CREATE BARRIERS TO STUDENT ENGAGEMENT?

presented by David A. Ruhman,

a candidate for the degree of doctor of education,

and hereby certify that, in their opinion, it is worthy of acceptance.

Dr. Barbara N. Martin, Dissertation Advisor

Dr. Sandy Hutchinson

Dr. David Kreiner

Dr. Doug Thomas

ACKNOWLEDGEMENTS

I will be eternally grateful to my dissertation supervisor, Dr. Barbara Martin, whose patient mentorship and steady encouragement propelled me to demand a level of excellence in myself I had not previously deemed possible. Dr. Martin always challenged the status quo in ways that demanded superiority in knowledge and action. I have been grateful for her guidance in this academic exercise that has humbled me and compelled me to reconnect to roots of active service, life-long learning and compassion towards all peoples, groups and cultures. Dr. Martin's attention to details, words of encouragement and unbending faith served to inspire and motivate me more than she could ever imagine. "Thank you," does not seem to be enough. My sense of her belief in me will always guide me in future research, instruction and work to improve education for all students.

At the same time, I am deeply appreciative for the insightful input and guidance of the other members of my dissertation committee: Dr. David Kreiner, Dr. Sandy Hutchinson, and Dr. Doug Thomas. The depth of feedback they provided on both content and format was absolutely indispensable in my efforts to craft a study of which I could be proud. I will always have fond memories of Dr. Kreiner's willingness to answer every unique and redundant question regarding statistics and analysis. He never waivered in the compassionate care he offered to a bewildered student seeking to get it right.

I am forever indebted to my wife Lisa, who has supported me throughout this program in my efforts to advance my education for the betterment of myself and as an example to our family. I would not be penning these comments were it not for her patience and encouragement in each class, through every project, every mile we travelled together and as this project came to a close. She carried me when I was tired, frustrated, confused and simply treading water; that alone speaks volumes to her support.

I want to thank my parents, Roger and Louise Ruhman, for instilling in me the value of an education at a young age. My father did not live to see this day, however, both of my parents always communicated to me their desire for me to do better for myself and my family, while paying it forward, if you will, to my own children. Thanks to their support, I am the first member of my family to attain a doctoral degree.

I also want to recognize my Cohort 8 team in Lee's Summit and all my colleagues during my nineteen years in secondary education. Without the challenges presented to me by colleagues I would not have developed a strong desire for excellence. The Cohort 8 group made every late night in Lee's Summit a night I truly looked forward to, as there certainly was never a dull moment or discussion with our vast array of personalities, politics and pet peeves. Regardless of our differences, however, we jelled well together and grew both personally and professionally as a result. My colleagues taught me the true meaning of shared decision-making, critical thinking, problem-solving and collaborative work. Being an introverted, independent individual, I needed to learn to exercise humility and allow group efforts to grow out of a shared vision. What we did together was far superior to anything any one individual could have crafted. I am a better person, both personally and professionally, to have worked with, learned from, and shared with these individuals.

Last, but certainly not least, I want to thank the participants who gave their precious time and voice to this study. This study would not have been possible without the candor and inestimable insight that each participant brought to the table. It was an absolute honor and inspiration to learn from these amazing educators.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

Table

LIST OF ILLUSTRATIONS

Figure

ABSTRACT

The face and make-up of education has experienced an almost constant state of reformation resulting in progressive benchmarks from each transition: the establishment of national education goals (Vinovskis, 2009); increased federal policy on education and accountability (DeBray, 2006); *No Child Left Behind* (NCLB) legislation (Rebell & Wolff, 2009) and the National Governor's Association *Common Core State Standards* (Herian, 2011). As a result, there is debate as to whether the educational challenge of today is best summed up by the assurance that all students succeed in meeting college-ready, career-ready or career- and college-ready standards (Stone & Lewis, 2012; CORD & NASDCTEc, 2012; Scott & Sarkees-Wircenski, 2008).

Little has changed in the perception that career-ready preparation was second-rate to college-ready preparation. According to Scott and Sarkees-Wircenski (2008), administrators, counselors and instructors have long supported career-ready preparation for those students who appeared unsuccessful in college preparatory courses. The rapid growth of vocational training centers in American schools (Scott & Sarkees-Wircenski, 2008) in conjunction with today's increased focus on academic rigor (DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009) challenge local school districts to once again reevaluate individual and corporate perceptions of career-ready educational programs. Cyclical financial support, as well as minimal collaboration by federal, state and local education agencies, has increased the pressure on secondary education to fill the needs of business and industry in producing graduates who are both career- and college-ready upon graduation from high school.

Utilizing a social justice model, the researcher researched through the ethic of community to discern examined teacher perceptions of college-ready, career-ready and

career- and college- ready education for a variety of internal education stakeholders. This research expanded awareness of the impact education stakeholder perceptions of college-ready, career- ready and career- and college-ready preparation have in encouraging and promoting student advancement toward college and career goals.

Statistical significance would enhance conclusions drawn from the quantitative and qualitative analysis of the data. When people are involved, however, seldom does it turn out that the answer is statistically clear. The present study shows that educators perceive there to be barriers to progress during secondary matriculation. It is not, however, clear that one's orientation toward a philosophy of college-ready, career-ready, or career- and college-ready gives the clearest answer as to why these barriers exist.

The results indicate that educators do not have their heads stuck in the sand, promoting and supporting a single path to secondary matriculation. Respondents displayed a balance across the three categories. The language of the responses to open-ended inquiries lent support to the quantitative analysis of the data, presenting teachers as balanced in orientations toward the student and concerned for the progress of students toward reaching career and college or advanced training goals. The learning community has much to offer to prepare students for life after high school. Educators appear to be progressing toward instituting more rigorous opportunities for students to be ready for both college and a career. The results of the research offer hope that educator perceptions are changing and moving toward greater opportunities for students to leave high school college-ready, career-ready or career- and college-ready. Tapping into the commitment of educators to improve student achievement will assist students in attaining career goals and advance achievement in American schools.

CHAPTER ONE

INTRODUCTION TO THE STUDY

Background

Prior to the 1960s, the federal government provided insignificant aid to states and local communities for the improvement of K-12 education (Vinovskis, 2009). Educational practice or reform resulted from modest state government intervention and the strong influence of local boards of education. However, the enactment of the *Elementary and Secondary Education Act* (ESEA) in 1965, according to Vinovskis, introduced a new era in the management and accountability of schools as the federal government became a financial partner for public education. The federal government commenced funding programs for disadvantaged schoolchildren providing general funding to states, who then funneled money to local education agencies intended to improve achievement for all students ((DeBray, 2006; Vinovskis, 2009). The ESEA expanded involvement of the federal government in local educational practices and amplified the function of state government in secondary education (Rebell & Wolff, 2009).

The function of secondary education continued to experience important organizational and philosophical modifications during the initial implementation of ESEA. Vinovskis (2009) identified two significant adaptations to management of secondary education: minimum compensatory testing and establishment of the United States Department of Education (Vinovskis, 2009). Guidance for minimum compensatory testing originated in state government and quickly attained sweeping consensus as a majority of states required compulsory testing by the end of the 1970's. The second

significant adaptation, establishment of the United States Department of Education, provided a perceived, but heavily debated, victory for President Jimmy Carter and the 96th Congress. The long-term significance of this adaptation to secondary education resulted from the Department of Education leader procuring a seat in the President's cabinet. Both of these changes revealed a marked shift from strong local control to federal and state oversight, as well as funding the practice of secondary education.

Toch (1991) isolated improvement in schools as essential for American advancement, survival and economic recovery; a perception increasingly supported by analysts, policymakers and the public. As a result, a political paradigm shift instigated formation of the Department of Education's National Commission on Excellence in Education (NCEE); a cabinet-level operation originated in 1981. The eighteen members of the NCEE panel produced a unanimous and influential report in April 1983: *A Nation at Risk: The Imperative for Educational Reform* (National Commission on Excellence in Education, 1983). This report and other benchmark education chronicles during the 1980s propelled the first significant wave of American educational reform. The first wave of reforms enacted through this new involvement of the federal government, as identified by Vinovskis (2009), included expansion of the requirements mandated for high school graduation, minimum compensatory tests and provision of merit pay for teachers. These significant contributions fueled continued political conflict surrounding the collaboration of federal, state and local involvement in education (DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009).

The face and make-up of educational reform subsequently experienced an almost constant state of variation resulting in the following progression of events: establishment

of national education goals (Vinovskis, 2009); increased federal policy on education and accountability (DeBray, 2006); *No Child Left Behind* (NCLB) legislation (Rebell & Wolff, 2009) and the National Governor's Association *Common Core State Standards* (Herian, 2011). As education reform morphed through a series of expansions, legislation and monitoring efforts extended to prioritize the assurance that all students would meet or exceed criteria for success in the marketplace and the assurance that all students successfully enroll and matriculate at postsecondary institutions; however, no reform effort appeared capable of reducing the achievement gap in secondary education (DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009). As a result, there is debate as to whether the educational challenge of today is best summed up by the assurance that all students succeed in meeting college-ready (e.g., Advanced Placement [AP], International Baccalaureate [IB], or Dual Credit Courses [DCC]), career-ready (e.g., Career and Technical Education Coursework [CTE], Distributive Education Clubs of America [DECA], Future Business Leaders of America [FBLA], Family, Career and Community Leaders of America [FCCLA], or Future Famers of America [FFA]) or career- and college-ready (a combination of college-ready and career-ready opportunities [examples given previously] based on student interest and a multi-pronged plan for achieving strong academics and advanced training/experience while the student is still in high school) standards (CORD & NASDCTEc, 2012; Scott & Sarkees-Wircenski, 2008; Stone & Lewis, 2012).

According to Brand (2003), the challenge for state education agencies is to interpret federal policy into measureable and sustainable actions resulting in college-ready achievement for all students, as well as preparing career-ready graduates who meet

the current demands of economic and workforce development. At present, the focus of the federal government trends towards career- and college-ready preparation in secondary education (Aud, Hussar, Johnson, Kena, Roth, Manning, Wang, & Zhang, 2012), while state governments appear focused on exclusive college-ready preparation programs in the high school curriculum. Research (Brand, 2003; Costellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001) supports the position of the federal government while assessing the current focus of some state education agencies as counter to the needs of students, business and industry.

Progressive educational reform continues to expand academic requirements within the high school curriculum, sometimes to the exclusion of career-ready preparation (Stone & Lewis, 2012). The combination of career- and college-ready instruction is made more difficult by the perception that career-ready preparation results in a second-rate option for secondary studies; however, career-ready research (Brand, 2003; Costellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001; Stone & Lewis, 2012) reveals valuable arguments for increased student achievement resulting from the connection between academic and technical skill training. Today's students, however, face an uphill battle to enroll, complete and graduate from high school with career-ready training due to perceptions that combining career- and college-ready studies results in substandard preparation and achievement for today's student. Stone and Lewis (2012) identified that America needs high school graduates who are both career- and college-ready, as well as possess the capacity to successfully complete at least one year of post-secondary education/training. Local school districts, however, continue to lament state and federal

influence on programs of study and support policies that appear to require graduates who are exclusively college-ready.

Conceptual Underpinnings for the Study

Current debate between business and industry, education and governmental agencies continues to probe the validity of establishing the overarching goal for effective education as: (a) the assurance all students successfully achieve college-ready standards; or (b) technical and occupational expressions of academic knowledge, technical skills unique to a career path, and employability skills applicable to a variety of work environments (CORD & NASDCTEc, 2012; Scott & Sarkees-Wircenski, 2008; Stone & Lewis, 2012). Research (Brand, 2003; Castellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001) lends credence to the latter position and presents challenges to the current focus of state education agencies while these agencies attempt to address the combined needs of students, parents, communities, postsecondary institutions, business and industry.

Progressive educational reform continues to expand academic requirements within the high school curriculum, sometimes to the exclusion of career-ready preparation (Stone & Lewis, 2012). The combination of career- and college-ready instruction is made more difficult by the perception that career-ready preparation results in a second-rate option for secondary studies; however, career-ready research (Brand, 2003; Castellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001) reveals valuable arguments for increased student achievement resulting from the connection between academic and technical skill training. Stone and Lewis (2012) noted contemporary students face an uphill battle to

enroll, complete and graduate from high school with career-ready training due to perceptions that combining career- and college-ready studies result in substandard preparation for students. These authors advocate for America to produce high school graduates who are both career- and college-ready and possess the capacity to successfully complete at least one year of postsecondary education/training; however, local school districts lament state and federal legislative acts, directives or mandates as they appear to require graduates who are exclusively college-ready.

To address this issue, the researcher first attempted to apply Bolman and Deal's (2008) structural or political frames through organizational analysis; however, this proved severely limiting for this study. The structural and political frames begin with a basic assumption that organizations exist to achieve established goals and objectives resulting in corporate values, beliefs, interests, information and a common perception of reality (Bolman & Deal, 2008). The structural frame assumes that efficiency and enhanced performance are achieved through specialization and a division of labor, a concept supported by classic organizational theory (Fayol, 2011; Gulick, 2011; Taylor, 2011); however, the political frame assumes evaluation centers on allocation of scarce resources, a concept supported by power and politics organization theory (French & Raven, 2011; Kanter, 2011; Mintzberg, 2011). The net result is a central theme stating that the one who controls the resources exhibits characteristics of power (Bolman & Deal, 2008). Where the political frame postulates that goals and decisions stem from bargaining and negotiation of interests, the structural frame indicates that structures fit an organization's circumstances with problems and poor performance resulting from structural deficiencies – something that can be remodeled through analysis and

restructuring (Bolman & Deal, 2008). Overall, based on this review of the structural and political frames neither proved adequate to the task required in this study.

School organizations serve as a primary component of educational reform. Hatch (2002) would philosophically argue that a constructivist approach must give way to a critical theorist approach for this study. For example, Hatch (2002) would see that multiple realities are constructed within the research. Further, he would argue race, gender or class influences result – essential elements of the critical theorist approach. Hatch (2002) would identify that valuable critiques challenge power structures and promote resistance as opposed to the constructivist approach, which is based on interpretations and reconstructions. Finally, Hatch (2002) would support knowledge as subjective and political as opposed to its existence being the result of human construction.

Therefore, leadership was strongly considered for the influence it exercises on the environment. Leadership is a mechanism for measuring impact on outcomes, thus the researcher analyzed Northouse's (2010) review of the skills and style approach. According to Northouse (2010) both the skills and style approach to leadership focus on the leaders behavior and/or accomplishments. The skills approach is a leader-centered model while the style approach is more concerned with the leader's personality traits and behaviors (Northouse, 2010). Neither approach has strong predictive value or effectively links traits or behavior to performance outcomes (Northouse, 2010). Failure to adequately address situations that required an approach other than high-task, high-relationship (Northouse, 2010), which these two approaches appear to prefer, resulted in the conclusion that these were inadequate theories to pursue further.

Depth was a recurring concern in developing the conceptual framework to this point. To address determined concerns, a move to knowledge sharing and knowledge management (Wang & Noe, 2009) was researched. Knowledge sharing and knowledge management has strong foundations in the accountability practices of business and industry. Given the current focus of federal involvement in schools (Herian, 2011) an approach of this nature proved compatible. Current practice in several states (Stone & Lewis, 2012), and compatibility with Bolman and Deal's (2008) organizational analysis in the structural or political frames, the literature review netted greater depth for a conceptual frame; however, the weaknesses of this theory was evidenced by a lack of commitment to individuals (or students) – a key component addressing the needs and achievement of students in school environments.

As a result, a theoretical shift was engaged, lending itself towards stakeholder theory (Freeman & Reed, 1983; Phillips, Freeman & Wicks, 2003) primarily because the focus of this theory is founded on actions justified by the interest advancement of the organization and its stakeholders (people and production – similar to the style approach to leadership). Stakeholder theory provided a stronger depth to internal and external stakeholder involvement in the learning environment; however, this theory proved inadequate to address the strong need to involve students, families and the community in the process (Phillips, Freeman & Wicks, 2003). Capitalizing on this deficiency an effort was made to further seek a theory that prioritized students, families and the community in the overall learning environment and established goals or objectives committed to advancing the achievement of all students.

Determining that a focus on collaboration and commitment to participants (Hatch, 2002) was necessary for inclusion of all students, social justice leadership theory was chosen as a conceptual frame for the present study. The advantages of this theory proved to include: the approach to change (Ayers, Quinn & Stovall, 2009) – the challenge to the status quo; the commitment to dismantle bias (Preskill & Brookefield, 2009); and the capacity to prioritize a commitment to end oppression and build equity (Theoharis, 2008). From the broader subject of social justice theory, focus was narrowed to social justice in education (Ayers, Quinn, & Stovall, 2009) and the ethic of community (Furman, 2004). This allowed the current study to be framed around whether all students benefit from the traditional focus of secondary education (college-for-all) or a revised approach, which provided all students career- and college-ready academic and technical-skill development.

In review, the researcher reviewed theories germane to the process of assessing perceptions of education stakeholders related to college- and career-ready education. Starting with Bolman and Deal's (2008) structural and political frames the researcher determined a strict analysis based on reframing organizational environments was inadequate for the study. The most appropriate conceptual framework would require a theory with greater capacity to assess the impact and influence of structure, legislation, human influence and assessment of the needs of individuals as part of the frame. The researcher reviewed three theories where the relationship provided progressive deepening and expansion of the conceptual framework. The researcher began with knowledge sharing and knowledge management and shifted to a related framework with greater application called stakeholder theory. Deficiencies of knowledge sharing and knowledge

management, as well as stakeholder theory, required further investigation to identify a conceptual framework providing greater allowance for the roles and influences of students, parents/guardians, business and industry, and the community. The effectiveness of social justice and the ethic of community as a conceptual framework appeared to address the deficiencies of knowledge sharing and knowledge management and stakeholder theory.

The review of knowledge sharing and knowledge management indicated that this theory would not suffice for the present study as a conceptual framework offering strong determination of individual's perceptions related to college- and career-ready education readiness. Stakeholder theory went further toward providing inclusion of environmental and external influence on individual's perceptions related to college- and career-ready programs of study; however, the framework strengths and deficiencies proved inadequate for use as a guiding theory for the present study. A review of social justice and the ethic of community determined additional components for assessment of individual's perceptions adequate for a conceptual framework of the present study and offering a frame for reviewing the results from surveying individuals and the perceptions offered in response to the survey instrument in both quantitative and qualitative data analysis.

America's current need is to train and educate a workforce that meets career- and college-ready standards (Stone & Lewis, 2012). Researchers (Brand, 2003; Costellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001; Stone & Lewis, 2012) identified an alarming trend where traditional secondary education programs focus almost exclusively on production of college-ready students. Change requires substantial effort to re-educate politicians, school

board members, administrators, instructors, counselors, parent(s)/guardian(s) and students to the benefits of programs of study focused on career- and college-ready graduates. Business and industry representatives, as well as federal government officials have made the clarion call for reform; however, according to Stone and Lewis (2012), change lags behind as education stakeholders, both internal and external, continue to impede enrollment and completion of secondary career- and college-ready programming as a result of the traditional college-for-all philosophy.

Statement of the Problem

Since 1965, the roles of the federal, state and local government in education experienced recurring, sometimes cyclical, change. The introduction of federal funds into education with the *Elementary and Secondary Education Act* (ESEA) funding in the late 1960s brought immediate attention to the needs of marginalized and disadvantaged students (Vinovskis, 2009) and later provided resources for funding career-ready training programs in secondary education (Scott & Sarkees-Wircenski, 2008); however, little changed as perceptions continued that career-ready preparation was second-rate to college-ready preparation. Administrators, counselors and instructors according to Scott and Sarkees-Wircenski (2008), have long supported career-ready preparation for those students who appeared unsuccessful in college preparatory courses. The rapid growth of vocational training centers in American schools (Scott & Sarkees-Wircenski, 2008) and today's increased focus on academic rigor (DeBray, 2006; Herian, 2011; Vinovskis, 2009; Rebell & Wolff, 2009) challenge local school districts to once again reevaluate individual and corporate perceptions of career-ready educational programs. Cyclical funding measures, as well as minimal collaboration by federal, state and local education

agencies, increase the burden on secondary education to fill the needs of business and industry in producing graduates who are both career- and college-ready upon graduation from high school.

Have current trends in 21st Century educational reform improved the perception of career-ready education or is a real-world, contextualized learning modality relegated to past perceptions of vocational education? The present study examined teacher perceptions of college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) education for a variety of internal education stakeholders. In addition, this research was intended to increase awareness of the impact education stakeholder perceptions of college-ready, career-ready and career- and college-ready preparation have in establishing barriers to students enrolling in, and completing, this type of secondary education training.

Purpose of the Study

The overarching question of the study was: Do internal education stakeholder perceptions of career- and college-ready education create barriers to student engagement, impede progress in career preparation during secondary matriculation? The intent of this mixed methods study (Cresswell, 2009; Merriam, 2009) was to explore perceptions of career- and college-ready education held by internal education stakeholders. Additionally, the study sought to determine if one's perceptions creates barriers to engagement in career- and college-ready program enrollment and completion for students.

The study utilized a single investigation, mixed methods design (Mertens, 2010). Mixed methods analysis used quantitative and qualitative methods in "design, data collection and analysis" (Mertens, 2010, p. 293) to secure answers to specified research questions. The study used a survey (Fink, 2009; Gay & Airasian, 2003; Sapsford, 1999) developed and implemented to measure the relationship between perceptions of career- and college-ready programs and one's propensity to recommend participation in college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs at the secondary level (Field, 2009; Gay & Airasian, 2003; Mertens, 2010; Merriam, 2010). In conjunction with the survey, open-ended questions (Creswell, 2009; Emerson, Fritz & Shaw, 2011; Hatch, 2002; Krueger & Casey, 2009; Merriam, 1998; Merriam, 2009; Mertens, 2010; Seidman, 2002; Weiss, 1994) were provided as a method to survey completers and determine individual opinions on college-ready, career-ready and career- and college-ready preparation at the secondary level. This provided the researcher with information to explore and assess local education stakeholder perceptions and potential barriers to promotion of college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs resulting in disadvantage for career-focused program completion. Combining quantitative and qualitative data served to aide the research by converging broad numeric trends – quantitative analysis – and detailed views – qualitative analysis – of the data (Creswell, 2009; Merriam, 2010; Mertens, 2010).

Research Questions

The chosen research hypothesis indicated there would be no significant difference between one's perception of college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs of study and one's openness to recommend career-ready education programs to all students attending the school where the individual works (Creswell, 2009; Merriam, 2010; Mertens, 2010). By use of a mixed methods analysis (Creswell, 2009; Merriam, 2010), the study sought qualitative information related to barriers created by the perceptions of internal stakeholders potentially creating disadvantage for students attempting to complete career-focused instruction and/or combining rigorous academics with technical skill training at the secondary level.

The following research questions were addressed within the context of this study:

1. Do perceptions of college-ready, career-ready or career- and college-ready programs of study create barriers to student engagement and impede progress in career preparation during secondary matriculation?
2. Do male and female respondents differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready, and career- and college-ready philosophy?
3. Do respondents with different years of experience in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?

4. Do respondents with different roles in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?
5. How do individuals perceptions of their own college-ready, career-ready, or career- and college-ready philosophy influence what is presented to students related to secondary matriculation?
6. How do perceptions of college-ready, career-ready, or career- and college-ready philosophy create barriers to progress during secondary matriculation?

Design of the Study

Limitations, Quality Control and Assumptions

As with any research, the researcher identified multiple limitations within the proposed study. In the quantitative portion of the study, the issue of broad-based appeal (Field, 2009) for participants and how broad based appeal limits the study due to lack of researcher-participant relationship or trust when completing a survey received via email was identified. Additionally, the potential for geographic-based bias (Field, 2009; Mertens, 2010) resulting from responses coming from limited or homogeneous demographic regions was acknowledged. The potential for unclear responses (Creswell, 2009; Fink, 2009; Mertens, 2010), requiring additional input from participants was also identified as a potential limitation. In addition, the potential for inappropriate inclusion of unclear responses or the impact of rejecting unclear responses in the data analysis was another potential limitation.

In the qualitative portion of the study, open-ended questions had the potential to produce limitations requiring attention. For instance, some participants are potentially

more outspoken than others resulting in skewed data (Creswell, 2009; Gay & Airasian, 2003; Mertens, 2010). Also, participants who view themselves as less relational to students are less likely to provide personally reflective, truthful and accurate responses in both quantitative and qualitative portions of a survey (Gay & Airasian, 2003; Mertens, 2010). There was the potential that participants brought time conflicts to both the qualitative or quantitative portion of the study, impacting one's contribution to the data (Field, 2009; Gay & Airasian, 2003; Mertens, 2010). Finally, the presence of additional internal documentation to add to effective triangulation of data (Hatch, 2002) was limited in some instances through the use of a statewide, volunteer-based appeal process for obtaining participants (Creswell, 2009; Gay & Airasian, 2003; Mertens, 2010).

Personal bias from professional experience and educational training was also a concern to be addressed. Coming from a background of experience with career-ready programs of study, the researcher was required to maintain focus on non-directed questions and responses (Creswell, 2009; Field, 2009; Mertens, 2010) for answers provided by participants. In addition, experience with state and local disruption to design, implementation and completion of career-ready programs of study had the potential to bias the researcher's response to individual participant data. Finally, unsuccessful attempts to expand college-ready programs of study to reflect career- and college-ready programs of study (Stone & Lewis, 2012) provided a challenge of bias to the researcher. As a result of these types of issues, the researcher determined to move away from a focus on perceptions of career and technical education preparation programs (Sarkees-Wircenski, 2008) to follow career- and college-ready programs of study (Stone & Lewis, 2012).

Quality control in the quantitative portion of the study consisted of several measures. Prior to beginning research with participants, all survey questions were field tested (Fink, 2009; Field, 2009; Mertens, 2010; Sapsford, 1999) with non-participants in similar roles within local school districts across the metropolitan and suburban Kansas City, Missouri area. In addition, prior to beginning research with participants, all open-ended questions were field tested (Creswell, 2009; Field, 2009; Fink, 2009; Mertens, 2010) with non-participants in similar roles for the qualitative portion of the mixed methods study. Mertens (2010) identified the purpose behind field-testing questions as ensuring pretest reliability and validity for the procedures and questions. The survey was conducted using a commercial product (*SurveyMonkey*). Participants in the survey were not specifically selected; however, participants who participated in the survey also completed the qualitative portion of the study. The process of purposeful selection was conducted to "best help the researcher understand the problem" (Creswell, 2009, p. 178).

Credibility within the study was determined through measures used in statistical and data analysis. Quantitative measures focused on interpretable data analysis based on statistical formulas (Creswell, 2009; Field, 2009; Fink, 2009; Mertens, 2010; Sapsford, 1999) acceptable in education research. For the qualitative portion of the mixed methods study, participation was open to all participants in the survey and answers to questions were reviewed and triangulated to insure accuracy and value of the responses (Creswell, 2009; Gay & Airasian, 2003; Hatch, 2002; Mertens, 2010) allowing the researcher to assess further the depth of perceptions and potential barriers experienced by students.

Transferability was monitored through the use of triangulation of the quantitative and qualitative data. For example, participants in the qualitative portion of the study were

allowed to provide thick descriptions (Mertens, 2010) and answers to questions presented. In addition, the quantitative portion of the study sought a broad recruitment of participants in a selection process designed to ensure transferability of the collected results (Field, 2009). Dependability (Mertens, 2010) was evaluated using documentation of the process and noting changes. If processes required change during the duration of the research data collection phase, the differences were documented and monitored.

Design Controls

According to Mertens (2010), the foundation of quantitative research is the postpositivist paradigm, which postulates the function of research as the generation of the strongest confidence that a specific knowledge construct related to an educational or psychological phenomenon is true or false by collecting evidence in the form of objective observations of relevant phenomena. In light of this postulation, Creswell (2009), Gay and Airasian (2003), and Mertens (2010) maintain that experimental research is the only method, which can definitively establish cause-and-effect relationships, although they recognize many educational problems are not addressed effectively by the experimental method. In education, the enacting of the *No Child Left Behind* legislation (No Child Left Behind Act of 2001, Pub. L. No. 107-110) created a political climate in full support of the use of experimental or quasi-experimental designs. By choosing a quasi-experimental design the researcher sought to eliminate possible alternative explanations to the research hypotheses and qualitative questions (Mertens, 2010).

The current study represented what Gay and Airasian (2003, p. 183) termed the *QUAN-QUAL Model*. In the *QUAN-QUAL Model*, research information is integrated simultaneously with quantitative and qualitative methods giving equal weight to both

throughout the entire study. A method for controlling the deficiencies in both the quantitative and qualitative portions of the study required the researcher to practice focused triangulation of data to increase corroboration of data collected (Creswell, 2009; Gay & Airasian, 2003; Mertens, 2010).

In spite of the limitations created by the research design, the researcher attempted to ensure rigor and quality through the appropriate quantitative and qualitative means of assessing validity and reliability. According to Gay and Airasian (2003), the degree to which research outcomes resulted from the independent variable, and not to some other rival explanation, is the degree to which the research design is internally valid. Ensuring internal validity required the researcher to control for the prevention of *extraneous* or *lurking variables*, *alternative explanations*, or *rival hypotheses* (Mertens, 2010, p. 126). For example, the researcher maintained up-to-date reviewing of legislation designed to promote new programs for career and technical education during the study. The effort was designed to control for the extraneous variable defined as *history* in Mertens (2010, p. 126). The survey instrument was kept to one form to prevent issues in internal validity described as the extraneous variable, *instrumentation* (Mertens, 2010, p. 127). Finally, the researcher worked to maintain participant involvement to help eliminate the extraneous variable of *experimental mortality* (Mertens, 2010, p. 127-8).

External validity, or *ecological validity*, results from the extent to which the study can be generalized to groups and settings beyond those maintained in the present study (Gay & Airasian, 2003, p. 359). The researcher was concerned to prevent rival explanations that would hinder generalizing the results to other settings or groups. In the present study, the researcher was concerned with *selection-treatment interaction* (Gay &

Airasian, 2003, p. 368), or the extent to which the nonrandom or volunteer selection of the study's participants limited the generalizability of the results. In the design and field-testing of the survey instrument for both the quantitative and qualitative portions of the study, the researcher attempted to decrease the *experimenter effects* (Gay & Airasian, 2003, p. 368) by using input from others to eliminate conscious or unconscious actions impacting the participants' performance and responses. Finally, the researcher worked with field-testing and mentoring from experienced researchers to control for *reactive effects* (Gay & Airasian, 2003, p. 368), in which participants respond outside of normal behavior simply because they are participants in a study.

Additionally, the researcher maintained a pulse on qualitative validity and reliability. Qualitative validity required the researcher to check for accuracy of the findings through the use of specific procedures (Creswell, 2009). According to Creswell (2009), Gay and Airasian (2003) and Mertens (2010), qualitative validity does not carry the same connotation as quantitative validity required. Creswell (2009) goes further to state that qualitative validity does not maintain the same companion relation to reliability and generalizability.

The researcher in the present study used several methods to ensure that reliability procedures were maintained. Answers to open-ended questions were checked multiple times to guarantee the absence of obvious mistakes during the transcription from the on-line process to the evaluation (Creswell, 2009). The researcher maintained standards to alleviate *drift* (Creswell, 2009, p. 190) during the process of coding the data. A triangulation (Creswell, 2009; Hatch, 2002; Gay & Airasian, 2003; Mertens, 2010) of different data sources was utilized to build coherent justification for chosen themes. Even

the use of open-ended questions was a research design to improve reliability and expand conclusions that could be drawn from the findings. The process of open-ended questions was utilized to offer a method for participants to provide rich, thick descriptions to individual opinions and perceptions (Creswell, 2009). Finally, the researcher clarified the *bias* (Creswell, 2009; Mertens, 2010) brought to the study resulting from participation, support and implementation of career- and college-ready programming.

Definitions of Key Terms

Research-based terms were identified to increase understanding of the present investigation. Definitions were provided to give readers a clearer understanding of key concepts and to establish a critical common language (Bruffee, 1999), thus inculcating in readers the capacity to create knowledge and reach a deeper understanding of the study and its results.

The following terms help the reader to gain an understanding of the context of the present focus on college- and career-ready preparation at the secondary level.

Career-focused instruction. Courses designed to demonstrate focus on academic skill development while simultaneously preparing the youth and adult learners for "pathways to high-skill, high-paid, or high-demand occupations" (Stone & Lewis, 2012, p. 13).

Career-ready. According to Stone and Lewis (2012), a student graduating career-ready from secondary education masters three types of skills: academic knowledge (occupational expression of academic knowledge), employability skills (often called soft skills, personal qualities as responsibility, self-management, and integrity), and technical skills (skill sets unique to the specific occupational context).

Career-ready education programs. A program of study designed to lead from coursework to employment at greater than entry-level standing. Three main areas of opportunity exist in today's high schools. Family and consumer sciences includes the following areas: human development; personal and family finance; housing and interior design; food science, nutrition and wellness; textiles and apparel; and consumer issues. General labor market preparation includes the following areas: career exploration; introduction to technology; and basic computer applications. Occupational preparation includes courses that teach skills within particular career clusters and require advance specificity as students complete training and assessment. (Stone & Lewis, 2012)

Career- and college-ready. A combination of what is defined as college-ready and career ready. It is the sum of the technical and occupational expression of academic knowledge, technical skill and knowledge unique to a career path, and employability skills and knowledge set as it applies to all workplaces. (Stone & Lewis, 2012)

College-ready. A student graduating college-ready from secondary education capable of enrolling in credit-bearing courses without the need for remediation is college-ready. Stone and Lewis (2012) indicate that states advocate the following means for ensuring college-ready graduates: high standards and expectations, rigorous courses aligned with standards, and tests to measure students progress toward achieving the standards.

Rigorous academics. State and local standards established to ensure students meet readiness criteria in reading, writing and math sufficiently rigorous to predict success in first-year college classes. Aspects of an integrated model of rigorous academic instruction include: readiness standards; assessments; curriculum; teacher development;

college and advanced employment placement; and state accountability (SREB, 2010).

Educational Stakeholder. For the purposes of this investigation an individual who has a role within a school district, such as an administrator, instructor, support staff personnel, etc.

Technical skill training. Occupational preparation includes courses that teach skills within particular career clusters and require advance specificity as students complete training and assessment (Stone & Lewis, 2012).

Summary

As stated previously, since 1965, the roles of the federal, state and local government in education have undergone cyclical change (DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009). The introduction of federal funds into secondary education, with Title I funding in the late 1960s, brought attention to the need of marginalized and disadvantaged students (Vinovskis, 2009); however, it resulted in little clarity for the role of career- and college-ready programs of study in secondary education. From the rapid growth of vocational training centers in American schools (Scott & Sarkees-Wircenski, 2008) to today's increased focus on academic rigor (DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009), career- and college-ready programs of study have experienced cyclical support from government with little collaboration of federal, state and local levels (Stone & Lewis, 2012).

Current trends in educational reform for the 21st Century continue to create debate about whether the changes improve the perceived status of career- and college-ready programs of study or are the real-world, academically rigorous, contextualized learning environments simply prey to past perceptions of vocational education. The present study

identified where career- and college-ready programs of study stand in the perceptions of educational stakeholders. In addition, this research increased awareness of the impact professional, support staff, paraprofessional and other stakeholder perceptions of career and technical education have in establishing barriers to students enrolling and successfully completing career- and college-ready studies in secondary education.

America needs a current workforce that meets career- and college-ready standards (Stone & Lewis, 2012). Change requires substantial effort to re-educate politicians, school board members, administrators, instructors, counselors, parent(s)/guardian(s) and students to the importance of combining academic and technical skill training development. The overarching purpose of this investigation was to determine education stakeholder perceptions of career- and college-ready education, which create barriers to student engagement impeding progress in career preparation during matriculation at the secondary level. Using a social justice conceptual frame, the present study focused on whether all students benefit from the traditional focus of secondary education (college-for-all) or would gain access and success from an approach requiring career- and college-ready preparation instruction.

Included in Chapter Two is a review of related literature relevant to the present study. Outlined in Chapter Three is the research design and methodology undertaken in the study. Presented in Chapter Four is an analysis of the data collected. Finally, discussed in Chapter Five are the findings, conclusions drawn, implications, and areas for future study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

Prior to the 1960s, the federal government distributed minimal financial aid to states and local communities, according to Vinovskis (2009). Early education reform stemmed from the sway and authority of local boards of education coupled with modest state government intervention. According to research (Ayers, Quinn & Stovall, 2009; DeBray, 2006; Rebell & Wolff, 2009; Vinovskis, 2009), enactment of the *Elementary and Secondary Education Act* (ESEA) of 1965 initiated federal influence as a financial partner for public education; through distribution of funds targeted for disadvantaged schoolchildren. States began to funnel federal money to local education agencies to improve achievement for all students, according to DeBray (2006), Rebell and Wolff (2009) and Vinovskis (2009) and the ESEA amplified the function of federal and state government in primary and secondary education in an expansion of federal involvement in local districts.

The continuous state of flux for the restructuring of education resulted in a progression of reforms, including: establishment of national education goals (Vinovskis, 2009); increased federal policy on education and accountability (DeBray, 2006); *No Child Left Behind* legislation (Rebell & Wolff, 2009) and the National Governors Association's *Common Core State Standards* (Herian, 2011). Education reform morphed through a series of changes, yet the overall goals remained academic preparation of all students and assurance all students enroll and matriculate at postsecondary institutions. In spite of lofty aspirations, no reform effort reduced the achievement gap in secondary

education (Ayers, Quinn & Stovall, 2009; DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009). Contemporary debate continues to probe whether the overarching goal for effective education is: (a) the assurance all students successfully achieve college-ready standards; or (b) technical and occupational expressions of academic knowledge, technical skills unique to a career path, and employability skills applicable to a variety of work environments (CORD & NASDCTEc, 2012; Scott & Sarkees-Wircenski, 2008; Stone & Lewis, 2012). Research supports the latter position and challenges the current focus of state education agencies addressing the combined needs of students, parents, communities, postsecondary institutions, business and industry (Brand, 2003; Castellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001).

Progressive educational reform continues to expand academic requirements within the high school curriculum, sometimes to the exclusion of career-ready preparation (Stone & Lewis, 2012). The combination of career- and college-ready instruction is made more difficult by the perception that career-ready preparation results in a second-rate option for secondary studies; however, career-ready research reveals valuable arguments for increased student achievement resulting from the connection between academic and technical skill training (Brand, 2003; Castellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001). As Stone and Lewis (2012) noted, today's students face an uphill battle to enroll, complete and graduate from high school with career-ready training due to perceptions that combining career- and college-ready studies result in substandard preparation for students. These authors advocate for America to produce high school

graduates who are both career- and college-ready and possess the capacity to successfully complete at least one year of postsecondary education/training; however, local school districts lament state and federal legislative acts, directives or mandates as they appear to require graduates who are exclusively college-ready.

A review of current related literature germane to the process of assessing perceptions of college- and career-ready education viewed through the lens of knowledge sharing and knowledge management; stakeholder theory; and social justice and the ethic of community was conducted for this study. The strength and deficiencies of knowledge sharing and knowledge management indicated that this theory would not suffice for a review of the perceptions of education stakeholders related to college- and career-ready education readiness. Stakeholder theory went further toward providing a basis for review; however, its strengths and deficiencies proved inadequate for use as a guiding theory for the present study. A review of social justice and the ethic of community resulted in an adequate conceptual framework for the present study inclusive of the theories strengths and deficiencies. In the following sections the process of analysis and assessment for fit with each of the theories is presented.

Knowledge Sharing and Knowledge Management

As stated previously, the influx of federal funding into primary and secondary education created unique changes in the role the federal government plays in reviewing, assessing and evaluating local school districts (Ayers, Quinn & Stovall, 2009; DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009). In addition, recent focus on accountability for taxpayer-funded programs has raised the stakes for local school districts that are now required to justify funding with measureable outcomes (DeBray,

2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009). Lawmakers, coming from the ranks of business and industry, have applied business principles to accountability programs in designing accountability standards for use of federal funds (Herian, 2011; Vinovskis, 2009). Knowledge sharing and knowledge management appeared adequate to address the needs stemming from accountability standards and measurement of the preparation of graduates entering the marketplace.

The Importance of Knowledge to Organizations

Knowledge is a crucial resource to organizations. According to researchers (Davenport & Pursak, 1998; Grant, 1996; Spender & Grant, 1996), knowledge provides sustainable competitive advantage for navigating a competitive and dynamic economic environment. Jackson, Chuang, Harden, Jiang, and Joseph (2006) postulated that the sharing of knowledge is fundamental to corporate knowledge application, innovation, and maintenance of competitive advantage. According to Nanaka (1994) shared knowledge, identified through information or the flow of messages, is a derived outcome of information justified by the individual and corporate belief structures. According to research (Cummings, 2004; Pulakos, Dorsey, & Borman, 2003), knowledge sharing provides task information and know-how to aide collaboration in solving problems, development of new ideas, or the implementation of policies and procedures. Additional research (Cabrera, Collins & Salgado, 2006; Stulanski, Cappetta, & Jensen, 2004) showed knowledge sharing differs from knowledge transfer and knowledge exchange because knowledge transfer involved a combination of allocated knowledge at the source, acquisition and application of knowledge by a recipient. Knowledge exchange, on the

other hand, was reported as a combination of knowledge sharing and knowledge seeking (Cummings, 2004; Nanaka, 1994; Pulakos, Dorsey, & Borman, 2003).

A three-pronged approach was utilized for reviewing knowledge sharing/knowledge management prior to drawing conclusions about the applicability of the theory. Following Wang and Noe's (2009) research, the review assessed the tactics available in literature that allow assessment of the impact and influence of organizational, team, and individual characteristics on the individual's capacity for sharing knowledge. Other research (Cabrera & Cabrera, 2005; Gupta & Govindarajan, 2000; Nonaka, 1994; Tsoukas & Vladimirou, 2001) qualified the importance of assessed team and organizational knowledge as a framework for collaboration between employees. Wang and Noe (2009) prioritized the need to isolate previous knowledge as an organizing framework for directing shared research to identify emergent theoretical and methodological issues, as well as guide future research. Finally, Wang and Noe (2009) demonstrated the influential nature of knowledge sharing and human resource management practice; inclusive of discussion linking knowledge sharing research with implementation, support, and effectiveness of organizational initiatives. The review of these components identified the impact knowledge sharing/knowledge management had related to organization context; interpersonal and team characteristics; cultural characteristics; individual characteristics; and motivational factors. What follows is a summation of the strengths and deficiencies related to the identified characteristics.

Organization Context

According to Wang and Noe (2009), trust attracts strong attention in research and provided a frame for organizational culture and the assessment climates, which support

knowledge sharing/knowledge management. According to research (Kankanhalli, Tan, & Wei, 2005), a culture that emphasized trust alleviated the negative effect of perceived costs on knowledge sharing for employees, administration and management. Other researchers (Schepers & Van den Berg, 2007; Wang, 2004; Willem & Scarbrough, 2006) determined that an organizational climate, which emphasized individual competition, posed a barrier to knowledge sharing whereas cooperative team perceptions created trust – a necessary condition for knowledge sharing. According to Lin and Lee (2006) perceptions of executives relative to knowledge sharing within the organization, the compatibility of knowledge sharing to existing organization processes, and the level of complexity in the promotion of knowledge sharing serve as mitigating factors between an organization's climate and the intent to encourage knowledge sharing. Inconsistent research results, however, suggest the relationship may be contingent on other factors such as participants' personality and the perceived usefulness to the community under weak rather than strong pro-sharing norms (Kankanhalli, Tan, & Wei, 2005).

Additionally, managerial support for knowledge sharing/knowledge management impacts the level of implementation achieved. For instance, according to Wang and Noe (2009) management support for knowledge sharing was shown to be positively associated with employee's perceptions of a knowledge sharing culture (e.g., employee trust, willingness of experts to help others). The willingness to share knowledge (Connelly & Kelloway, 2003; Lin, 2007d) and support of management (Lee, Kim, & Kim, 2006) affected both the level and quality of knowledge sharing and impacted employee commitment to knowledge sharing/knowledge management. Other researchers (Cabrera et al., 2006; Kulkarni, Ravindran, & Freeze, 2006) identified perceived supervisor/co-

worker support and encouragement of knowledge sharing/knowledge management increased employee knowledge exchange and the perception of usefulness for the practice. As indicated above, management support of knowledge sharing/knowledge management practices is vital to the positive perceptions of the individuals and teams within an organization.

Rewards and incentives also played into the development of support for knowledge sharing/knowledge management. For instance, organizational rewards such as promotion, bonus pay and higher salary showed positive correlation related to the frequency of knowledge contribution, especially when employees identified with the organization (Kankanhilli et al., 2005). Several studies (Kwok & Gao, 2005; Lin, 2007c,d) found no relationship between extrinsic motivation and knowledge sharing intentions or attitudes. Research by Ferrin and Dirks (2003) examined how different types of rewards (rather than the presence or absence of rewards) influenced knowledge sharing/knowledge management. The research found cooperative reward systems positively affected information sharing between partners, whereas a competitive system resulted in the opposite effect. Other researchers (Quigley, Tesluk, Locke, & Bartol, 2007; Taylor, 2006) examined the influence of group-based incentives finding positive results for this practice, compared to individual, piece-rate and tournament-type incentives.

Finally, organization context is influenced by organization structure. Functionally segmented structures inhibited knowledge sharing across functions and communities of practice (Lam, 1996; Tagliaventi & Marttarelli, 2006). Research showed knowledge sharing/knowledge management was facilitated by: (a) a less centralized organizational

structure (Kim & Lee, 2006); (b) a work environment that encouraged interaction among employees through structures such as open workspace (Jones, 2005); (c) fluid job description and job rotation use (Kubo, Saka, & Pam, 2001); and (d) open communication encouraged across departments and through informal meetings (Liebowitz, 2003; Liebowitz & Megbolugbe, 2003; Yang & Chen, 2007). Successful organizations, according to Wang and Noe (2009), structured opportunities for employee interaction to occur where employees' rank, position or seniority in the organization hierarchy was deemphasized.

Interpersonal and Team Characteristics

The process of teaming and team characteristics influence knowledge sharing among organization members. According to Bakker, Leenders, Gabbay, Kratzer, and Van Engelen, 2006, the length of organized team relationship and assessment of team cohesiveness amongst members strongly influenced team members' capacity to share knowledge. In addition, Bakker et al. (2006) found that empowered leadership fostered increased characteristics of knowledge sharing among team members. Constructing effective teams for knowledge sharing required collaboration and development of interpersonal relationships between management and workers.

Diversity was another facet of interpersonal and team characteristics that influenced the sharing of knowledge. Researchers (Cross & Cummings, 2004; Hansen, 1999; Reagens & McEvily, 2003) showed team members who considered themselves to be classified as minorities based on gender, marital status, or education were less likely to share knowledge with other team members. On the other hand, socially isolated team members more often disagreed with others and contributed one's unique knowledge less

within a heterogeneous team (Phillips, Mannix, Neale, & Gruenfeld, 2004; Thomas-Hunt, Ogden, & Neale, 2003).

Social networks also played a role in the development of interpersonal or team characteristics for sharing knowledge. Research showed knowledge sharing was embedded in broader organizational networks, such as communities of practice (Cross & Cummings, 2004; Hansen, 1999; Reagens & McEvily, 2003). Granovetter (1973) and Perry-Smith (2006) concluded congruent strength required higher emotional closeness and was less likely to occur, whereas weaker congruence was more likely to follow non-redundant connections with knowledge recipients and tended toward motivating providers to share knowledge. According to Reagens and McEvily (2003), social cohesion positively related to easing knowledge transfer when reviewed from the perspective of the knowledge source; suggesting that the connections with the knowledge recipients motivated providers to share knowledge. Research (Kankanhalli et al., 2005; Nahaplet & Ghoshal, 1998) provided evidence for the existence of connected networks and associated social capital exchanges, which facilitated knowledge sharing within a community of practice.

Cultural Characteristics

Cultural characteristics play a negative or positive role in the development and solidification of interpersonal and team characteristics related to the sharing of knowledge. Researchers (Ford & Chan, 2003; Minaeva, 2007) concluded multinational organizations and international subsidiaries made up of employees with different national cultures and languages posed challenges for knowledge sharing. In contrast, the dimension of collectivism (Hwang & Kim, 2007) was positively related to the attitude of

participants for utilization of a group email function in an online classroom management system to share knowledge.

Individual Characteristics

Research (Cabrera et al., 2006) examined openness to experience and found a positive relationship related to individuals' self-report of engaging knowledge exchange as a practice. Jarvenpaa and Staples (2000) found employees' comfort level and ability to use computers likely influence the usage of collaborative electronic media for information sharing. Employees with a higher level of education and longer work experience were more likely to share their expertise and develop positive attitudes toward sharing knowledge (Constant, Kieseler, & Sproull, 1994). Bordia, Irmer, and Abusah (2006) identified anxiety based on fear of negative evaluations as negative to the development of knowledge sharing for individuals and teams.

Motivational Factors

The following section identifies four elements of motivational factors found in research: beliefs of knowledge ownership; perceived benefits and costs; interpersonal trust and justice; and individual attitudes. Research (Constant et al., 1994; Jarvenpaa & Staples, 2000) identified that employees' perceptions of information – as owned by the individual or team, in contrast to organizational ownership – promoted employee reporting of engagement in knowledge sharing. Organizations where employees are viewed as integral to knowledge development sustained sharing of knowledge more strongly.

Employee motivation for sharing knowledge impacted perceived benefits and costs. Researchers (Blau, 1964; Emerson, 1981) showed perceived benefits as positively

associated with knowledge sharing while perceived costs were a negative influence on the sharing of knowledge. While researchers (Chiu, Hsu, Wang, & Tg, 2006; Siemsen, Balasubramanian, & Roth, 2007; Wasko & Faraj, 2000) also disclosed knowledge sharing was more strongly related to employees' beliefs that shared knowledge is useful to others when compared to the personal benefits gained, especially within one's professional network. Lack of time and unfamiliarity with the subject are two identified reasons individuals and teams do not share knowledge according to Hew and Hara (2007). Kankanhalli et al. (2005) indicated that the time and effort employees perceived was required to codify knowledge in order to share it negatively impacted employee participation in electronic knowledge repositories to exchange information; especially when trust of other employees was weak related to contributing to or using the deposited knowledge.

Interpersonal trust and justice had a role in the motivation of employees to engage in sharing of knowledge. Wu, Hsu, and Yeh (2007) examined the influence of trust and justice and determined expectations of reciprocity impact knowledge sharing with an individual, a team, or a collective unit, such as a community of practice. Researchers (Abrams, Cross, Lesser, & Levin, 2003) identified ten behaviors and practices, which promote interpersonal trust in the context of sharing knowledge. According to Butler (1999) and Lin (2007b) trust has always been examined as an antecedent or mediator of knowledge sharing. Researchers (Chowdhury, 2005; Mooradian, Renzi, & Matzler, 2006; Wu et al., 2007) also showed both affect- and cognition-based trust positively influences the sharing of knowledge at the dyadic and team levels.

Bakker et al. (2006) examined three dimensions of trustworthiness: capability, integrity, and benevolence. This group of researchers found that individuals tended to share less knowledge with team members whom were perceived to be very capable (capability) and share more knowledge when they believed other team members were honest, fair, and followed principles (integrity). Whether a trustee was believed to have good will for another trustee (benevolence); however, was not significantly impacted in the sharing of knowledge.

Expanding on the previously mentioned research, Sondergaard, Kerr, and Clegg (2007) showed unjustified trust causes potential users to refrain from questioning the usefulness of the knowledge and its context for application, leading to misapplication or misuse of the knowledge shared. This was an important factor to consider for the present study. Rupp and Cropanzano (2002) determined the justice-knowledge sharing relationship received little research attention although the role of justice in affecting the quality of social exchange relationships between employers and employees has been well established. Again, this was a perceived strength for the present study; however, it also identified a glaring deficiency for the study. Finally, Schepers and Van den Berg (2007) showed procedural justice was positively related to perception of knowledge sharing among employees. Good information for the present research, yet the compilation of deficiencies was mounting for using this theory in the present work.

Individual attitudes are the final component related to knowledge sharing motivational factors reviewed. According to Bock and Kim (2002), individuals' expectations of the usefulness of their knowledge and thoughts that sharing can improve relationships with others are related to positive knowledge sharing attitudes, which in

turn are related to knowledge sharing intentions and behaviors. Researchers have found intentional encouragement by managers was positively related to employee sharing behaviors (Lin & Lee, 2004), while attitudes inclusive of job satisfaction and organizational commitment promote shared knowledge (de Vries, van den Hoof & de Ridder, 2006; Lin, 2007a,b). In addition, job and organizational attitudes had a significant influence on knowledge sharing, according to Bock, Zmud, Kim and Lee (2005) and Lin (2007c). Attitudes toward knowledge sharing were shown to not only have a direct effect on the sharing of knowledge, but they also had an indirect effect on self-reported sharing behavior through the positive influence on intentions to share.

Application Review: Knowledge Sharing/Knowledge Management

Knowledge sharing/knowledge management had a multitude of applications related to the present study when one focused on financial- and outcomes-based accountability; however, these strengths were a glaring deficiency when attention focused on the perceptions of education stakeholders related to the impact of providing a college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of college-ready and career-ready opportunities based on student interest and a multi-pronged plan for achieving strong academics and advanced training/experience while the student is still in high school) preparation program for high school graduates (Cummings, 2004; Davenport & Pursak, 1998; Grant, 1996; Pulakos, Dorsey, & Borman, 2003; Spender & Grant, 1996; Wang & Noe, 2009). Knowledge sharing and knowledge management sufficed to provide a strong marketplace analysis of the present study (Cabrera, Collins, & Salgado, 2006; Cummings, 2004; Jackson et al., 2006; Nanaka, 1994; Pulakos, Dorsey, & Borman, 2003; Szulanski,

Cappetta & Jensen, 2004). The practice of the theory provided overarching analysis, attention to measured accountability and received acceptance and acknowledgement from education, business and industry (Wang & Noe, 2009); however, it falls significantly short on addressing the inter- and intrapersonal aspects of the present study. To address this necessary element, the present research required use of a theory that provided similar structure to knowledge sharing/knowledge management (Wang & Noe, 2009), yet incorporated the inter- and intrapersonal element (Ayers, Quinn, & Stovall, 2009). To this end, the literature review shifted from knowledge sharing/knowledge management to stakeholder theory (Phillips, Freeman, & Wicks, 2003).

Stakeholder theory embraces the inter- and intrapersonal elements missing in knowledge sharing/knowledge management (Phillips, Freeman, & Wicks, 2003); however, this theory also has strengths and deficiencies related to the present study. In the following sections, stakeholder theory is defined and reviewed as it is presented in literature. Strengths are detailed and deficiencies are identified. In the end, an assessment of the theory's application to the present study is provided.

Stakeholder Theory

Stakeholder theory is a, "theory of organizational management and ethics" (Phillips, Freeman & Wicks, 2003, p. 480). According to researchers (Donaldson & Preston, 1995; Jensen, 2000; Jones, 1995; Sternberg, 2000) the power of stakeholder theory is a direct result of unlimited managerial prescriptions and implications when used unreflectively; however, when discussed in connection with the need for managers to attend to stakeholders as a means to achieving other organizational goals – such as profit or shareholder wealth maximization – stakeholder theory is "virtually unopposed"

(Phillips, Freeman & Wicks, 2003, p. 479). Jones and Wicks (1999a) identified the background for such strong statements of value when they identified stakeholder theory as being conceived in terms that are dynamically and decidedly moral. Stakeholder theory is distinct from other theories in that it addresses morals and values explicitly, as a central feature of managing organizations (Phillips, Freeman, & Wicks, 2003).

Normative Justification for Stakeholder Theory

According to Phillips, Freeman and Wicks (2003) stakeholder theory requires attention to more than maximizing shareholder wealth. The interests and wellbeing of those who can assist or hinder achievement of the organization's objectives is central to successful application of the theory. Other researchers have shown the value in the above conclusions through research providing normative justification for the use of stakeholder theory. For instance, Freeman and Wicks (2003) identified stakeholder theory gave indication of value derived from, and for, the common good. Friedman and Miles (2006), as well as Freeman and Wicks (2003), reported a normative case in research for using stakeholder theory to assess the impact of risk. Researchers (Freeman & Wicks, 2003; Friedman & Miles, 2006) applied stakeholder theory to feminist ethics and developed a normative case. In addition, stakeholder theory has been applicable in multiple business applications: integrative social contacts (Donaldson & Dunfee, 1999); property rights (Donaldson & Preston, 1995); Kantanism (Freeman, 1994); doctrine of fair contracts (Freeman, 1994); and stakeholder fairness (Phillips, 1997, 2003). Dimensionally, stakeholder theory comes up short of strong research and application because moral content was often taken for granted, implied, or ignored in management research (Phillips, Freeman, & Wicks, 2003).

What Stakeholder Theory is NOT

Applied stakeholder theory in research created a variety of responses from individuals, organizations and researchers. Some contribute to an understanding of stakeholder theory. Other responses provide the impetus to determine what stakeholder theory is not. In light of these responses, a multidimensional understanding of stakeholder theory requires a critical review of scholarly distortions and interpretational misinterpretations when the theory is utilized (Phillips, Freeman, & Wicks, 2003).

One critical distortion identified by researchers (Jensen, 2000; Marcoux, 2000; Sternberg, 2000) was stakeholder theory created endorsement of opportunism by managers. Jensen (2000) also identified that stakeholder theory failed to provide a sufficiently specific, functional objective for corporate purposes. Another critical distortion of the theory concluded that stakeholder theory is primarily concerned with distribution of financial outputs (Marcoux, 2000). Finally, researchers (Gioia, 1999; Marcoux, 2000; Sternberg, 2000) identified a critical distortion in perception focused on the perception that all stakeholders must be treated equally.

Interpretational misinterpretations impacted utilization of stakeholder theory. One of the misinterpretations identified by researchers (Freeman & Wicks, 2003; Hendry, 2001a; Hendry 2001b) was that stakeholder theory required change to current law for use and implementation. Another misinterpretation concluded that stakeholder theory was socialism and impacted the entire economy (Barnett, 1997; Hutton, 1995; Rustin, 1997). Some researchers have concluded that stakeholder theory is a comprehensive moral doctrine, which is another form of misinterpretation (Orts & Strudler, 2002). Finally,

Donaldson and Preston (1995) postulated a misinterpretation of stakeholder theory finding that the theory applied only to corporations.

The separation of bearing risk and decision-making was one of the problems identified in research related to stakeholder theory (Phillips, Freeman & Wicks, 2003); however, stakeholder theory prioritized moral and legal obligations on the part of the organization to act solely in the interest of the principal, a potential solution to the identified problem. Researchers (Jensen, 2000; Marcoux, 2000; Sternberg, 2000) found opportunism allowed managers to act according to self-interest and claim the actions benefited a non-specific group of stakeholders. Stakeholder theory "effectively destroys business accountability…because a business that is accountable to all, is actually accountable to none" (Sternberg, 2000, p. 51). Phillips, Freeman, and Wicks (2003) counter this argument showing there was little proof that stakeholder theory provided any more or less justification for an opportunistic manager. As a means for introducing what stakeholder theory is, Phillips, Freeman and Wicks (2003) concluded that stakeholder theory does not advocate the service of two masters; managers serve the interest of one master: the organization.

What Stakeholder Theory IS

According to Phillips, Freeman and Wicks (2003), stakeholder theory provided a method by which stakeholder obligations were derived, as well as admonishing managers to account for the interests of stakeholders in decisions. An organization managed for stakeholders distributed the fruits of organizational success (and failure) to organizational stakeholders (Phillips, 2003). Although benefits were distributed based on relative contribution to the organization, Sternberg (2000, p.50) argued that, "in maintaining that

all stakeholders are of equal importance to a business, and that business ought to be answerable equally to them all, stakeholder theory confounds business with government." Other researchers (Gioia, 1999; Jones & Wicks, 1999b; Marcoux, 2000; Sternberg, 2000) concluded stakeholder theory implied equal treatment irrespective of the fact that certain stakeholders contributed more than others to organizational progress.

Phillips, Freeman and Wicks (2003, p. 489) offered the following summary: "…stakeholder theory is a theory of organizational strategy and ethics and NOT a theory of the whole political economy." Psychological research of organizational justice (Deutsch, 1975, 1985; Elster, 1992; Leventhal, 1976) considered the instrumental effects of different values on the achievement of goals. Stakeholder theory interpreted as a theory of strategic management required changes in existing law as opposed to creation of laws that mandate organizations to be visionary (Collins & Porras, 1994), excellent (Peters & Waterman, 1982), or focused on learning (Senge, 1990). Phillips and Margolis (1999) concluded that stakeholder theory was a theory of organizational strategy and ethics. Rawls (1993) supported this conclusion asserting that stakeholder theory offers a comprehensive model of moral doctrine because it does not depend on a single religious, national, cultural or moral theory for a foundation.

The word *stakeholder*, coined in an internal memorandum at the Stanford Research Institute in 1963 (Freeman & Reed, 1983), referred to groups whose support was vital to the existence of the organization. The concept of stakeholder (Dill, 1975) grew to denote a shift from stakeholder influence toward stakeholder participation. Dill's (1975) work concluded stakeholder theory was the substance for the overarching umbrella of strategic management. Stakeholder theory was a theory of organizational

ethics that resulted from voluntary associations (Phillips, Freeman & Wicks, 2003), rather than being morphed from a fundamental structure within society. The stakeholder concept exhibits three levels of application, according to Freeman and Reed (1983): a management theory; a process for practitioners to use in strategic management; and an analytical framework. The challenge demonstrated in governing today's corporation required analysis of the entire stakeholder grid and respective power bases reflecting stakeholder influence. This conclusion resulted in the theory being attractive for the present study.

Freeman and Reed (1983) identified two stakeholder procedures required to analyze for effective implementation of stakeholder theory: stakeholder strategy process and stakeholder audit process. The strategy process was a systematic method that allowed analysis of the relative importance of stakeholders – inclusive of the cooperative potential and competitive threat to the organization. The audit process was a systematic method allowing identification of stakeholders, as well as the assessment of the effectiveness for current organizational strategies. Freeman and Reed (1983) further defined the broad and limited essence of stakeholders. The broad essence of stakeholders included an identified group or individual that impacted achievement of organizational objectives, as well as those affected by the achievement of the organization's objectives. The limited essence of stakeholders included an identified group or individual to which the organization depended for uninterrupted survival. Thus, stakeholder theory, according to Freeman (1988, p. 44), was "a genre of stories about how we could live." When effective, stakeholders are freed to engage agreements to create value for themselves, as well as advance mutual interests of all stakeholders.

According to Freeman (1988, p. 47-48), there are three principles that form the foundation of stakeholder theory: "enabling principle; principle of director responsibility; and principle of stakeholder recourse." The *enabling principle* identified the interests of the stakeholder – established by staff, fiscal agents, service agents, employers, and communities – that manage corporate activity. The *principle of director responsibility* identified the corporate duty of care required to exercise reasonable judgment and define or direct the actions of the corporate body in congruence with the *enabling principle*. And, the *principle of stakeholder recourse* identified stakeholder capability for bringing action against directors when there was failure to perform the required duty of care.

While stakeholder theory allowed advanced application for the present study inclusive of the need for inter- and intrapersonal awareness (Phillips, Freeman, & Wicks, 2003), the theory was determined inadequate due to the overemphasis on managerial and business practices. Strengths related to the review of financial- and outcomes-based accountability (Dill, 1975; Freeman, 1998; Phillips, Freeman, & Wicks, 2003) were overshadowed by deficiencies related to inclusion of perceptions of parents, students, community and postsecondary institution representatives. As a foundation for a study, Stakeholder Theory would suffice if the focus remained solely administrative, instructor/administrative, or federal/state agency/administrative practices (Freeman, 1998; Freeman & Reed, 1983; Phillips, Freeman, & Wicks, 2003); however, this is not the case in the present study.

The priority of the perceptions of internal and external stakeholders to the influence on student participation in college-ready (e.g., Advanced Placement [AP], International Baccalaureate [IB], or Dual Credit Courses [DCC]), career-ready (e.g.,

Career and Technical Education Coursework [CTE], Distributive Education Clubs of America [DECA], Future Business Leaders of America [FBLA], Family, Career and Community Leaders of America [FCCLA], or Future Famers of America [FFA]) or career- and college-ready (a combination of college-ready and career-ready opportunities [examples given previously] based on student interest and a multi-pronged plan for achieving strong academics and advanced training/experience while the student is still in high school) programs of study (Stone & Lewis, 2012) required a theory where the element of inter- and intrapersonal relationships was a stronger focus. To this end, the present study further reviewed other theories where these foundational priorities were addressed. Review of the social justice theory (Ayers, Quinn & Stovall, 2009; Preskill & Brookefield, 2009; Theoharris, 2008) initiated an allowance to focus on the inter- and intrapersonal dimensions. Deepening the commitment to the priority included drilling down to the ethic of community (Furman, 2004) within social justice theory. The following section will present a brief introduction to social justice theory and defense of the ethic of community as the conceptual framework forming the foundation for the present study.

Social Justice Theory and the Ethic of Community

There is no shortage of literature and sound empirical research to advance administrative and instructional organization within local school districts. The impact of leadership within school districts and on student choices of programs of study is well documented (Stone & Lewis, 2012). Similarly, the impact of *bad leadership* (Kellerman, 2004) on individuals and organizations demonstrates important parameters of what the practitioner ought not do. Examples of leadership theories practiced at the local district

level include: principle-centered leadership (Covey, 1990); moral leadership (Sergiovanni, 1992); primal leadership (Goleman, Boyatzis & McKee, 2002); resonant leadership (Boyatzis & McKee, 2005); transformational leadership (Northouse, 2010; Bass & Avolio, 1994); authentic leadership (Northouse, 2010); team leadership (Northouse, 2010) and social justice leadership (Preskill & Brookfield, 2009). Northouse (2010) acknowledged difficulty in defining a single, universally acceptable leadership theory, noting that there are as many definitions of leadership as there are people who attempt to define it.

A vital component of moving from a viable theory to an effective practice includes understanding the importance of combining the concepts of hearing and doing. Ancient Hebrew culture and language offers a paradigm for insight into the advanced amalgamation and unification of the myriad of leadership theories. The Hebrew word "shema" required the individual to achieve full integration of hearing and doing in response to a received teaching (Strong, 1990). A comprehensive examination of leadership theory requires today's practitioner to also champion full integration of hearing and doing when applying a leadership theory in the school environment. Yukl (2002, p. 7) captured the *shema* concept, when he characterized the general principle of leadership as, "the process of influencing others to understand and agree about what needs to be done and how it can be done effectively, and the process of facilitating individual and collective efforts to accomplish the shared objectives." Quality education reform requires individuals and leaders who discern student needs ensuring dismantled bias, deconstructed oppression, constructed equity, and engagement of specific actions

eradicating obstacles to academic progress – important foundational components of social justice leadership theory.

Social justice leadership theory created significant advancements in organizational change and increased student achievement for secondary education in the last half-century (Ayers, Quinn & Stovall, 2009). Researchers (Ayers, Quinn & Stovall, 2009; Preskill & Brookefield, 2009; Theoharris, 2008) showed the importance of addressing individual needs – familial and/or community values and norms – into the learning environment. Expanding the proportion of students who successfully navigated the transition from high school to advanced education/training and onto lifelong learning required adaptation toward the precepts of social justice leadership theory, according to research (Ayers, Quinn & Stovall, 2009; Preskill & Brookfield, 2009).

Of the myriad of leadership theories, social justice theory, according to Preskill and Brookefield (2009), was unique in its prioritization of students, as well as the incorporation of individual, family and community culture into the learning environment. Social justice leadership theory focused action (Ayers, Quinn & Stovall, 2009) to student needs while maintaining directed attention to advancing the impact of the learning environment. Implementation of social justice theory, according to Furman (2004), encouraged all staff to collaborate in assisting individuals' to reach their full potential as lifelong learners.

The reasoning behind this supposition resulted from convergent synthesis of three core areas of social justice leadership theory: change, dismantling bias, and ending oppression / building equity. Ayers, Quinn and Stovall (2009) advocated a social justice approach to substantially change the structure and function of American public schools,

citing the plight of poor and working class communities. Inadequate resources and deficient funding, while warding off a push for school closures and privatization of services, created an adverse impact on educational environments within these communities. As stated previously, social justice theory uniquely prioritized individual student achievement while incorporating familial and cultural values into the learning environment. Ayers, Quinn and Stovall (2009) identified three components of effective change required to increase student achievement: an honest assessment of internal and external forces impacting the learning environment; adjustment or response to cultural realities; and culturally sensitive measurements of knowledge acquisition. Traditional leadership theories such as transformational and authentic leadership (Bass & Avolio, 1994; Northouse, 2010), focused on success derived from administrator capacity to influence student progress and lead instructors, but failed to provide a significant advantage to addressing change as identified in social justice leadership theory.

Another distinguished advantage for the use of social justice leadership theory in secondary education resulted from a focus on dismantling bias. The need to dismantle bias was identified by Preskill and Brookfield (2009) when they showed social justice leaders demonstrated this quality when they confronted the status quo and individualized the environment to the specific needs of students. Other leadership theories, such as transformational, authentic and team leadership (Bass & Avolio, 1994; Northouse, 2010), promoted focus on the leader's emotions, values, ethics, standards and long-term goals and discounted the values of students, families and the community.

While it appears that social justice theory is without challenge from this analysis, a truly balanced synthesis requires acknowledgement that effectively researched,

implemented and assessed programs improve student achievement using any of these theories (Bass & Avolio, 1994; Northouse, 2010; Preskill & Brookfield, 2009). Research in transformational and authentic leadership identified the positive impact these theories have on student achievement (Northouse, 2010), as did research on effectively applied social justice leadership theory (Preskill & Brookfield, 2009). Evidence (Ayers, Stovall & Quinn, 2009; Preskill & Brookefield, 2009; Theoharris, 2008) indicated transformational and authentic leadership practices are significantly easier to apply in a school setting, making transformational and authentic leadership theories very attractive to senior school leaders and boards of education.

Social justice leadership theory, however, separates from these other theories in the prioritization of deconstructing bias while heightening awareness of individual students, families and the community (Ayers, Quinn, & Stovall, 2009; Furman, 2004; Preskill & Brookfield, 2009; Theoharris, 2008). Transformational and authentic leadership failed to discriminate the need for dismantling bias because these theories primarily served the leader and her/his followers (Bass & Avolio, 1994; Northouse, 2010), while team leadership focused on organizational work groups (Northouse, 2010) also impeding opportunities to dismantle bias. Preskill and Brookfield (2009) championed the capacity of social justice leadership to effectively dismantle bias by advocating self-reflection and support of the individual's learning through incorporation of family/community norms and values. Social justice leadership's strength resided in the capacity to dismantle personal and corporate bias, incorporate social and cultural norms into the learning environment and extend external stakeholder investment in

improvement of the learning environment and the greater community (Preskill & Brookfield, 2009).

According to Preskill and Brookfield (2009), the foundation of social justice leadership theory is constructed by furtherance of internal and external stakeholders collaboration for the benefit of the individual student and increased potency of the learning environment. Secondary education, to achieve success, must tackle the third important element of social justice theory – ending oppression and building equity. Preskill and Brookfield (2009) documented the value of bringing home, school and community together to develop the full potential of the child as part of social justice theory. A criticism of both transformational and authentic leadership theories is that parameters are difficult to define, clarity is lacking and little precision is offered to influence individual morals and values (Northouse, 2010). Theoharis (2008) characterized the strength of social justice theory as the leader's measured success in engagement of actions opposed to oppression, provision of a model for equity and establishment of relational justice within the entire learning environment. Theoharris (2008) further emphasized the need for the social justice leader to secure the environment for the student, as well as ensuring respect and acceptance of the individual's cultural heritage in the learning environment.

Given the strengths and contrasted areas of focus for alternative leadership theories, social justice theory proved a worthy overarching frame for the measurement of future success in secondary education practices. However, opponents of this view argue that a policy or organizational analysis of secondary education leadership is more appropriate. The strengths of social justice leadership theory when considered using

Bolman and Deal's (2008) organizational analysis political frame and/or policy analysis via the concept of power in Stone (2012) address the strengths of social justice leadership theory; however, it also deconstructs attention to the individual student's needs and effective modification of the learning environment (Copper & Randall, 1998; Ehrensal & First, 2008; Fowler, 2009). Additionally, Bolman and Deal (2008) indicated priorities in the political frame gravitate toward wrestling for resources, management by political practice, and a penchant for *bottom-up* or *top-down* systems precluding strong challenge to the status quo. Therefore, using organizational or policy analysis to promote and evaluate change in secondary education diminishes the importance of the individual student, family and community. In turn, there is a reduction in the impact of structured reforms the organization can benefit from related to change, dismantled bias, treatment of oppression and construction of equity in the learning environment (Ayers, Quinn & Stovall, 2009; Bolman & Deal, 2008; Preskill & Brookefield, 2009; Stone, 2012; Theoharris, 2008).

Given the general overview of this theory, the conceptual frame advanced beyond the deficiencies of knowledge sharing/knowledge management and stakeholder theory; however, even pure social justice theory required further refinement to provide a substantial frame for the present study. Within social justice theory, a sub-theory espoused by Furman (2004) called the *Ethic of Community,* provided a more rich, deeper context for the present study. The following section develops this conceptual frame in depth to provide a completed funnel for the structure of the present study.

The Ethic of Community

Leadership of educational institutions creates a unique set of circumstances to address in research. As previously presented, the theory of knowledge sharing/knowledge management proved insufficient for meeting the unique challenges of the educational environment. Stakeholder theory also failed to provide sufficient analysis for the present study. On the other hand, social justice and the ethic of community develop a sufficiently funneled framework through usage of the following components: moral leadership (Dentley, 2003; Furman, 2004; Leithwood & Duke, 1998; Sergiovanni, 1992), communal processes (Beck & Murphy, 1997; Bogotch, 2002; Furman, 2004; Giroux, 1991; Isaacs, 1999; Shapiro & Purpel, 1993; Shapiro & Stefkovich, 2001; Sheilds, 1999; Staratt, 1994), governing by observing justice (Enomoto, 1997; Furman, 2004; Knapp, 1992; Murphy, 1999; Shields, 1999; Sobel, 1996; Staratt, 1994) and community in schools (Furman, 2004; Furman & Staratt, 2002; Guenwald, 2003; Shapiro & Stefkovich, 2001; Staratt, 1994).

Moral Leadership

According to Furman (2004), social justice, grounded in the ethic of community, exhibits capacity to synthesize current leadership practices, social justice practices and moral purposes of educational leadership. A synthesis of leadership practices, social justice and moral responsibility are presented in this section, along with identification of the leader as an individual and moral agent. In addition, this section addresses the question: *What is moral leadership?*

Sergionvanni (1992) argued for an emergent style of leadership based on principle-centered authority. Sergiovanni (1992, p.16) stated,

> By giving more credence to sense experience and intuition, and by accepting sacred authority and emotion as fully legitimate ways of knowing – the value systems undergirding management theory and leadership practice will grow large enough to account for a new kind of leadership – one based on moral authority. This kind of leadership can transform schools into communities and inspire the kind of commitment, devotion, and service that will make our schools unequaled among society's institutions.

Stating that there was a moral responsibility for educators to pursue the purpose of intervention, as well as addressing the challenges of day-to-day activities and rigor within the school setting, Furman (2004) agreed with this precept. Sergiovanni (1992) was also concerned with the voices through which the marginalized are heard and how inequities of the organizational structure are exposed. Sergiovanni (1992, p. 86) dedicated considerable attention to "collegiality as a professional virtue," giving credence to the importance of the mutual benefit [or communal processes as described by Furman (2004)] and moral leadership provided for stakeholders in school environments.

Dewey (1922) was one of the first to write about education as a fundamentally moral practice. The growth of support for moral leadership has since expanded (Furman, 2004). Dentley (2003, p. 196) offered the term "purposive leadership" as a means of capturing a leaders' sense of commitment to fully engage moral purposes when structuring a "platform of hope" for marginalized students and communities. Thus, moral leadership theory and the moral purposes of leadership (Furman, 2004) set the stage for the priority given ethical leadership practices within the school environment.

Leithwood and Duke (1998) agreed, and argued that values are central to all aspects of leadership practice. In fact, Leithwood and Duke (1998) argued that substance

within leadership studies branches off the values and ethics maintained by the individual school leader. Other researchers (Dillard, 1995; Enomoto, 1997; Kasten & Ashbuagh, 1991; Kelly & Bredson, 1991; Keyes, Hanley-Maxwell & Capper, 1999; Marshall, Patterson, Rogers & Steele, 1996; Reitzug & Reeves, 1992) found that administrators maintain strong awareness of the impact and practice of moral leadership as related to core values and one's commitment to focus on outcomes. Additional support, as evidenced in the works of Kidder (1995) and Strike, Haller, and Soltis (1998), defined ethics as principles that guide ethical reasoning and decision-making in leadership. Ethical reasoning, however, is evident on several levels, such as: ends-based (consequentialist), rule-based (non-consequentialist), and/or care-based thinking (Beck, 1994; Kidder, 1995).

According to Furman (2004), by the mid-1990s ethics was firmly entrenched as a foundation for education reform and leadership. For instance, Hoy (1994) included ethics as one of the seven major paradigms of knowledge. Beck and Murphy (1997) also identified the proliferation of ethics courses included in administration preparation programs at colleges and universities. Finally, the Interstate School Leaders Licensure Consortium (1996) included ethics as one of the six domains primary to the widely adopted ISLIC standards for administrator preparation. Furman (2004) cautioned against *drinking the Kool-Aid* identifying that ethical frames do not guarantee thinking disengaged from the entrenched mindset of our Western society, our schools and the field of educational studies. Dweck (2008) reinforced the importance the need for caution delineating between the natures of the fixed mindset and growth mindset. Individuals grounded in a fixed mindset are prone to reinforce previously held concepts and ideals. It

takes an individual with a growth mindset to focus on previously held beliefs and ideals, as well as incorporating new concepts for revised conclusions.

Authentic moral leadership is predicated on use of a clearly distributive approach founded on interpersonal and group skills. According to Furman (2004), today's educational leader is most effective when the following exist in the individual's leadership inventory: (a) listens with respect; (b) strives to know and understand others; (c) communicates effectively; (d) works collaboratively in teams; (e) engages in open dialogue; and (f) creates forums to allow all voices to be heard and recognized. Other researchers (Dweck, 2008; Shapiro & Stefkovich, 2001; Staratt, 1994) identified these concepts as central to establishing the ethic of justice, critical review of structures, care for others and the advancement of professionalism.

What is required to provide full participation and open inquiry in the school environment? As stated previously, it originates with a synthesis of leadership practices, social justice and moral responsibility (Furman, 2004). Sergiovanni (1992) postulated the ultimate outcome desired for the school district: transformed schools where stakeholders are inspired to commitment, devotion and service. Furman (2004) concurred and prioritized dynamic social justice achieved through deliberate intervention that dismantles fundamental inequalities and establishes stronger educational and economic outcomes for all marginalized children.

Communal Processes

The role of moral leadership in the theory of social justice and the ethic of community introduces the concept of communal processes (Furman, 2004). The moral responsibility of the educational leader, according to Furman (2004), requires the

individual to engage in communal processes as a primary means promoting progress and change; however, there is also an imperative to establish the moral agency of the school environment. There are three primary communal processes, as defined by Furman (2004): (a) processes for knowing, understanding and valuing; (b) processes for full participation and inquiry; and (c) processes for working toward the common good.

The processes for knowing, understanding and valuing, according to Beck and Murphy (1997, p. 33), are equated with "perspectives that inform perceptions, character and beliefs." In other words, ethics are formed within the character of the individual by the internalization of moral values and virtues guiding personal and professional practices. According to Staratt (1994, 2003), three overarching ethical practices aide individuals in the resolution of moral dilemmas encountered on a daily basis: (a) the ethic of justice; (b) the ethic of critique; and (c) the ethic of care.

Shields (1999) gave definition to the ethic of justice while showing educators know very little about their students and their home cultures in his studies based in Navajo schools; going as far as to say that educators base many of their decisions on bias and inaccurate assumptions. The ethic of critique, in the works of Giroux (1991) and Shapiro and Purpel (1993), is linked to "social discourse" (Giroux, 1991, p. 48) and dialogue. According to Bogotch (2002) ethical leaders struggle valiantly often overcoming great adversity to achieve a specific vision of social justice. Thus, the common process for knowing, understanding and valuing is vital to moving the organization forward to the second communal process: processes for full participation and inquiry.

Full participation and inquiry requires an organization to place "students at the center of the ethical decision-making process" (Shapiro & Stefkovich, 2001, p. 23) and is a necessary complement to other ethical practices; however, one should remember the finding of Shields (1999) – many educators base decisions on bias and inaccurate assumptions. Shapiro and Stefkovich (2001, p. 18) expanded the principle of full participation and inquiry by defining professional ethics in the following manner,

> […] even taken together, the ethics of justice, critique and care do not provide an adequate picture of the factors that must be taken into consideration as leaders strive to make ethical decisions within the context of educational settings. What is missing – that is, what these paradigms tend to ignore – is a consideration of those moral aspects unique to the profession … To fill this gap, we add a fourth to the three ethical frameworks… a paradigm of professional ethics.

Therefore, there is a need for a communal process of knowing, understanding and valuing, as well as a communal process for full participation and inquiry. The final communal process to be reviewed is the process for working toward the common good.

Processes for working toward the common good, according to Furman (2004), result when the ethic of community centers the communal over the individual related to moral authority. Staratt (1994, p. 50) concurred reminding researchers that concepts of justice do not develop in isolation, but are reshaped by "participation in the life of the community." In addition, moral choices, according to Staratt (1994) and Furman (2004), are best made within a community setting. Isaacs (1999) lends support by defining dialogue as "a living experience of inquiry *within* and *between* people or a conversation in which people think together in relationship" (p. 9, emphasis in original) … "and listen to the possibilities" (p. 19).

Governing by Observing Justice

The strength of using social justice theory and the ethic of community is further evidenced through what Furman (2004, p. 226) called, "full participation and open inquiry." Primary to successful twenty-first century leadership analysis is the process for assessing achievement of "valued outcomes such as social justice, racial equity, and learning for all children in schools" (Furman, 2004, p. 227). Murphy (1999) concurred and identified three paradigms to serve as the center for educational leadership studies: (a) school improvement; (b) democratic community; and (c) social justice. These researchers advocate that school leaders focus on value-added planning in schools.

Staratt (1994, p. 49) also weighed in on the subject by concluding the ethic of justice requires organizations governed "by observing justice." What are the barriers to fairness within the school environment? Staratt (1994) and Enomoto (1997) alerted educators to insufficiency related to working for fairness within existing social and institutional structures, especially when the arrangements themselves are unfair. The imperative is for administrators and educators to critique the present system; examine the ways policies, practices, and structures result in unfair implementation and access; and focus attention on how the system might be advantaging one group over another. Staratt (1994, p. 47) concluded:

> No social arrangement is neutral. Every social arrangement, no matter how it presents itself as natural, necessary or simply the way things are is artificial. It is usually structured to benefit some segments of society at the expense of others. The ethical challenge is to make these social arrangements more responsive to the human and social rights of all citizens.

Individuals treated as unique persons proved vital to this process. Exercising the ethic of care required absolute regard for the dignity and intrinsic value of the unique person, and "desires to see that persons enjoy a fully human life" (Staratt, 2003, p. 145). Thus, the ethic of care must be balanced with the ethic of justice. What may be "fair" (Staratt, 2003, p. 145) for one individual may not be fair for another; creating unique individual and incomparable circumstances because of matchless needs.

Researchers concurring with the work of Staratt (1994, 2003) included Isaacs (1999), Knapp (1992), Shields (1999) and Sobel (1996). As stated previously, Shields (1999) showed through studies at Navajo schools that educators know very little about their students, their home cultures and, in fact, often base decisions on bias and inaccurate assumptions. The importance of creating dialogue through "conversation in which people think together in relationship" (Isaacs, 1999, p. 9) "… and listen to the possibilities" (Isaacs, 1999, p. 19) was also previously discussed. Knapp (1992) and Sobel (1996) concluded there was need to prioritize student involvement when studying that natural environment of the local community, including excursions into the community as part of the learning structure.

Community in Schools

The previous sections created a foundation for the final component reviewed in this theory: community in schools. According to Furman (2004), community in schools resulted from three distinct, yet overlapping strands of theoretical intervention: (a) moral leadership theory; (b) the moral purposes of leadership; and (c) ethical leadership practice. These strands converge to establish the primacy of a democratic community, diversity, and the development of effectual democratic and communal processes in a

divergent and multicultural society (Furman, 2004). Gruenwald (2003) discussed the overarching umbrella connecting pedagogy to the local environment – the engagement of students as part of the process for restructuring the local social environment. Furman's (2004, p. 229) "ethic of community" captured the central alignment of the need for communal processes in a manner that the ethics of justice, critique, care (Staratt, 1994) and the profession (Shapiro & Stefkovich, 2001) could not; however, leadership unique to the profession required a moral imperative to "serve the best interests of the student" (Shapiro & Stefkovich, 2001, p. 23).

Advocates of community-building in the school environment concluded that benefits included: reduction in the sense of alienation for students, improved achievement, enhanced collegiality for educators, and potential for educational practices which are more democratic (Furman, 2002; Louis & Kruse, 1995; Sergiovanni, 1996); and development of a body of research supporting these claims (Beck & Murphy, 1996; Bryk & Driscoll, 1988; Shouse, 1996). Community building in schools reflected practices similar to democratic community research (Furman, 2004). Research provided common meaning for democratic community, such as: (a) community based on, and supportive of, a reverence for open inquiry, or the "full and free interplay" (Dewey, 1916, p. 83) of ideas; (b) membership in community and a sense of ownership and participation in open inquiry and work for the common good; and (c) community based standards for the worth and dignity of individuals where contributions are valued and respected. (Crow & Slater, 1996; Dewey, 1916; Furman & Staratt, 2002; Maxcy, 1995; Reitzug & O'Hair, 2002)

Furman and Staratt (2002) noted that development of democratic community has similarities to valuation of community as developed by Gutmann (1987) and Green

(1999). Knapp (1992) and Sobel (1996), as stated previously, also advocated involving students in the process of assessment and study of the natural environment inclusive of immersion of the students in the local community. Isaacs (1999) provided further support through a definition of dialogue in a structured environment. Further, according to Furman (2004) and others, social justice has recently acquired further intensity and urgency in the education environment due to multiple factors. For instance, there is increased diversity of school populations (Goldring & Greenfield, 2002). The awareness of the achievement and economic gaps between mainstream and minority children (Bowles & Gintis, 1976; Coleman, 1990; Valenzuela, 1999) has also factored into increasing the acceptance of social justice theory and the ethic of community. Finally, the need for increased analyses of social justice within the school environment resulted in increased exposure of injustice arising from current policy on high-stakes assessments and accountability measures (Larson & Ovando, 2001; Macedo, 1995; McNeil, 2000; Rapp, 2002).

Summary

As stated, social justice theory and the ethic of community provide the strongest conceptual framework for the present study. In addition to addressing issues related to coordination and collaboration of education stakeholders, these theories provide a strong structure for addressing the inter- and intrapersonal impacts of the present study. The limits for application of knowledge sharing/knowledge management and stakeholder theory result from the orientation of these theories to a business and industry dominated approach. Social justice theory and the ethic of community adapted to the education environment and reflected a research-friendly application within the school setting. There

was not a significant loss of structured accountability as advocated in knowledge sharing/knowledge management and/or stakeholder theory. In fact, the requirements of business and industry application is what placed all three of these theories in a relationship and allowed the funneling from knowledge sharing/knowledge management to stakeholder theory and finally to social justice theory and the ethic of community.

Careful consideration was given to choose the best approach to the present study. From this literature review, it was concluded that a combination of social justice theory and the ethic of community would serve to adequately frame the current study. Delineated in Chapter Three will be the research design and methodology of the study. The mixed research design, incorporating quantitative and qualitative measures, is described. Presented in Chapter Four are the research analysis and findings. In Chapter Five, the discussion of the results of the study, conclusions, implications, and recommendations for further research are presented.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

The following chapter provides a more detailed review of the design of the study, a description of participants and sampling procedures used to select participants. The process and procedures for data collection and analysis is discussed. Finally, the role of the researcher, limitation and assumptions of the present study are reviewed.

As a review, the rapid growth of vocational training centers in American schools (Scott & Sarkees-Wircenski, 2008) and today's increased focus on academic rigor (DeBray, 2006; Herian, 2011; Vinovskis, 2009; Rebell & Wolff, 2009) present a major challenge to school districts to reevaluate individual and corporate perceptions of career-ready and career- and college-ready programs of study. Cyclical financial support, as well as minimal collaboration by federal, state and local education agencies, challenge the capacity of secondary education to fill the needs of business and industry in producing graduates who are both career- and college-ready upon graduation from high school. The present study identified the perceptions of college-ready (e.g., Advanced Placement [AP], International Baccalaureate [IB], or Dual Credit Courses [DCC]), career-ready (e.g., Career and Technical Education Coursework [CTE], Distributive Education Clubs of America [DECA], Future Business Leaders of America [FBLA], Family, Career and Community Leaders of America [FCCLA], or Future Famers of America [FFA]) or career- and college-ready (a combination of college-ready and career-ready opportunities [examples given previously] based on student interest and a multi-pronged plan for achieving strong academics and advanced training/experience while the student is still in

high school) preparation have in establishing barriers to students enrolling in, and completing, this type of matriculation.

The study utilized a single investigation design (Mertens, 2010). A survey (Fink, 2009; Gay & Airasian, 2003; Sapsford, 1999) was developed and implemented to measure the relationship between perceptions of career- and college-ready programs of study and one's propensity to recommend participation in college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs at the secondary level (Field, 2009; Gay & Airasian, 2003; Mertens, 2010; Merriam, 2010). In conjunction with the survey, open-ended questions (Creswell, 2009; Emerson, Fritz & Shaw, 2011; Hatch, 2002; Merriam, 1998; Merriam, 2009; Mertens, 2010; Seidman, 2002; Weiss, 1994) were provided to survey completers to determine individual opinions on college-ready, career-ready or career- and college-ready preparation at the secondary level. This provided the researcher with information to explore and assess local education stakeholder perceptions and potential barriers to successful student completion of matriculation programs of study based on career plans; resulting in disadvantage for career-focused program completion.

Data analysis was conducted under the conceptual framework of social justice (Ayers, Quinn & Stovall, 2009; Brookfield, 2009; Theoharris, 2008) with a more specific look at social justice in education and the ethic of community (Furman, 2004). Social justice and the ethic of community adapted best, according to Furman (2004), to the education environment and reflected a research-friendly application within the school setting for the study. Additionally, there was not a significant loss of structured

accountability as was present in other conceptual frameworks. The application to educational environments, adaptation to the requirements of business and industry, and inclusion of the largest pool of stakeholders (Ayers, Quinn & Stovall, 2009; Brookfield, 2009; Furman, 2004; Theoharris, 2008) strengthened the decision to utilize social justice and the ethic of community as the conceptual framework to conduct the study.

Research Questions

The chosen research hypothesis was that there would be no significant difference between one's perception of college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs of study and one's openness to recommend career-ready education programs to all students attending the school where the individual works (Creswell, 2009; Merriam, 2010; Mertens, 2010). By use of a mixed methods analysis (Creswell, 2009; Merriam, 2010), the study sought qualitative information related to barriers created by the perceptions of internal stakeholders potentially creating disadvantage for students attempting to complete career-focused instruction and/or combining rigorous academics with technical skill training at the secondary level.

The following research questions were addressed within the context of this study:

1. Do perceptions of college-ready, career-ready or career- and college-ready programs of study create barriers to student engagement and impede progress in career preparation during secondary matriculation?

2. Do male and female respondents differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready, and career- and college-ready philosophy?
3. Do respondents with different years of experience in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?
4. Do respondents with different roles in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?
5. How do individuals perceptions of their own college-ready, career-ready, or career- and college-ready philosophy influence what is presented to students related to secondary matriculation?
6. How do perceptions of college-ready, career-ready, or career- and college-ready philosophy create barriers to progress during secondary matriculation?

Design of the Study

Educational research employs systematic application of a family of methods (Gay & Airasian, 2003; Mertens, 2010) to generate trustworthy information related to educational problems, issues and topics. The present study involved a mixed method – a combination of quantitative and qualitative methods (Creswell, 2009; Merriam, 2010) – project that addressed a challenge of opinion and practice in the school environment. The utilized project design employed application of a quasi-experimental strategy. Creswell (2009), Hatch (2002), and Mertens (2010) identified the quasi-experimental strategy as approximating a true experimental design; however, participants of the study are not

randomly assigned to groups. The survey portion of the present study was delivered to school district personnel requiring self-directed, voluntary participation from survey completers. Membership lists of employees within a school district were not manipulated and all recipients were eligible to complete the survey and/or choose not to participate.

The qualitative portion of the survey was administered within the survey instrument. Four open-ended questions were developed to give participants greater freedom to express opinions and perceptions related to college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) opportunities within the school environment. Sappsford (1999, p.81) defined a *one-shot survey* as the method by which a researcher does a single phase of survey data collection to review of the opinions of the participants. This method is less desirable; however, its use is often effectively employed when parameters necessary for a complete and accurate sampling frame are not practical or available. Other researchers (Hatch, 2002; Merriam, 1998; Merriam, 2009; Seidman, 2006; Weiss, 1994) reflect the caution previously mentioned and discussed a variety of necessary steps required to make this approach produce viable information and reflect participant opinions.

The current study chose to use a *cohort study* (Sappsford, 1999, p. 83) model. A group of individuals were selected to survey employed at a comprehensive high school program or a career and technical education center. Therefore, not all participants were exposed to the three programs of study – college-ready, career-ready or career- and college-ready – while the student is still in high school. The chosen method provided a desirable level of prevention for deficiencies such as sample attrition. Although the

choice of this method of study was practical for the current study, this type of process does not eliminate negative influence of the concept of *cluster sampling* (Hatch, 2002; Merriam, 1998; Merriam, 2009; Sappsford, 1999). The researcher will have to account for the potential of institutional thinking reflecting *local oddity* (Sappsford, 1999, p. 85) as institutions with both comprehensive high schools and hosting a career and technical education center were not specifically chosen for the study.

Utilizing a mixed methods (Creswell, 2009) procedure afforded the researcher the capacity to converge, as well as merge, quantitative and qualitative data in order to create a comprehensive analysis of the research problem. A concurrent triangulation strategy (Creswell, 2009; Hatch, 2002; Merriam, 2009) was completed during the mixed method study procedure. This strategy allowed the researcher to collect both quantitative and qualitative data concurrently and compare the two databases to determine if there was convergence, differentiation or a combination of the two (Creswell, 2009; Sappsford, 1999).

An on-line survey was administered to pre-selected institutions with gatekeeper approval and hosting either a comprehensive high school or a career and technical education center. An effort was made to conduct a national survey using an organization committed to school reform and career education. The International Center for Leadership in Education (ICLE) and the Southern Regional Education Board (SREB) were contacted; however, the ICLE warrants participants information and could not release data to contact the institutions and SREB was occupied with other projects and research and could not join the effort of the current study. The researcher contacted the Missouri Association of Secondary School Principals (MASSP) to recruit participants;

however, the organization declined access to the state's high schools based on practice of the organization related to doctoral studies.

The Missouri Council for Career and Technical Administrators (MCCTA) agreed to join in the project after the researcher met with the Executive Director and current President of the organization. Though MASSP and MCCTA hold a joint conference in the fall where both organizations share programming, the researcher could only obtain audience with the MCCTA program Directors. A list of twenty career and technology centers was developed to facilitate obtaining district permission and represented institutions across the state of Missouri. From this list of institutions specific buildings were contacted in order to formally obtain gatekeeper approval. A total of three career and technology centers obtained gatekeeper approval and participated in the study.

To collect data from certified instructors employed at comprehensive high schools, including core and non-core subject areas, randomly selected school districts were contacted from the 524 districts of the State of Missouri Department of Elementary and Secondary Education. Approximately forty-eight percent (48%) of the districts in the state of Missouri were contacted. Less than four percent (4%) responded to the request for permission to survey and of those that responded two (2) high schools were completely approved by the gatekeeper for conducting the research. It was determined that these two (2) high schools would make up the comprehensive high school population for the research study.

A single instance survey with both quantitative and qualitative components was chosen to facilitate information on participants' current perceptions and philosophical support of college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA,

FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs of study in the secondary education setting. District Superintendents, administrators, Career and Technical Education Directors, and Technology Information officials along with the researcher established the process for distribution of the survey in a specific district. The process utilized a *single stage-sampling* model (Creswell, 2009; Mertens, 2010). Participants' personal characteristics for data analysis were collected within the survey instrument to allow manipulation in data analysis (Field, 2009; Fink, 2009; Gay & Airasian, 2003; Mertens, 2010).

Prior to data collection, gatekeeper requests were developed for district approval and introduction of the study to district administration and volunteer participants (Creswell, 2009; Fink, 2009; Gay & Airasian, 2003; Mertens, 2010). During the on-line survey, participants were provided a statement of their rights as participants and all participants were given the opportunity to withdraw from the study at any time, by simply ceasing to complete the survey (Gay & Airasian, 2003; Mertens, 2010). All open-ended question responses were recorded and transcribed prior to qualitative analysis (Field, 2009; Fink, 2009; Hatch, 2002; Merriam 2009, Mertens, 2010). Responses were reviewed, triangulated and consolidated to provide a summation of participants' opinions and perceptions related to the importance of focusing on college-ready, career-ready or career- and college-ready programs of study in the secondary education setting (Creswell, 2009; Field, 2009; Gay & Airasian, 2003; Hatch, 2002; Mertens, 2010).

Participants and Sampling Procedures

According to Mertens (2010), researchers make decisions regarding whom to collect data from; who will be included in the study; how individuals will be included in

the data collection process; and what is done to conceal or reveal individual identities within the context of the study and the subsequent write-up. The primary characteristic of the population sampled in the present study was that data were collected from an *experimentally accessible population* (Field, 2009; Gay & Airasian, 2003; Mertens, 2010). This helped to frame the, *whom to collect data from*, component of participants and sampling procedures.

The researcher sought access to secondary education settings including comprehensive high school and career and technical education centers fitting the conceptual definition of the study from the general education population (Gay & Airasian, 2003; Mertens, 2010). In the case of the present study, the general population of available participants was internal stakeholders of local school districts. These individuals were queried to determine perceptions of college-, career- and career- and college-ready preparation and how perceptions created barriers to enrollment, continuation and completion of career- and college-ready programs at the secondary level. By using *identical samples* (Mertens, 2010, p. 326) for both the quantitative and qualitative portions of the study, the researcher addressed mixed methods sampling parameters.

The next aspect of sampling addressed by the researcher was who would be included in the study. The present study chose to use a *purposeful* or *theoretical* sampling procedure (Creswell, 2009; Gay & Airasian, 2003; Mertens, 2010), thus allowing the researcher to identify information-rich population samples that would allow in-depth study. More specifically, the present study utilized a variation of *intensity sampling* and *typical-case sampling* (Mertens, 2010, p. 321-2). The researcher identified sites where the

phenomenon was strongly represented (districts with a comprehensive high school or access to a career and technical education center) in recognition of the principles of *intensity sampling*. The researcher also followed this same path and logic to institutions where college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs of study would exist – *typical-case sampling*.

The researcher was able to secure participation of three progressive career and technology centers recognized for the achievement of students in the state; a high school with access to a shared-time career and technology center and an advanced technology program; and a high school with access to a shared-time career and technology center. The researcher built relationships with buildings and districts that volunteered to participate during a recruiting presentation at the fall Missouri Association of Secondary School Principals (MASSP) and Missouri Council of Career and Technology Administrators (MCCTA) conference at the invitation of the MCCTA Executive Committee. The relationship of central office administration, comprehensive high school administration, career and technical education center administration, and the district technology department was vital to the success of this research. Once agreement was obtained, the district supplied a mechanism for a district wide email to staff containing the survey, according to district policy.

By way of visual accounting, the following figure is included to portray the demographics of the survey respondents to allow the reader to get a feel for the nature of the sample used in the research. Three career and technology centers and two high schools responded to the survey after gatekeeper approval was obtained in the district. Of

those who responded to the survey, the figure (Figure 1) represents the sample population.

Figure 1. Demographic data of survey participants (**93** of *115* completed the survey).

Demographic	Choices	Results
Gender	Male (*51 started survey*)	**43** (46.24%)
	Female (*64*)	**50** (53.76%)
Years of Experience	Completing 1-5 years (*11 started survey*)	**8** (8.60%)
	Completing 5-10 years (*23*)	**19** (20.43%)
	Completing 11-15 years (*18*)	**12** (12.90%)
	Completing 16-20 years (*24*)	**22** (23.66%)
	Completing 20 years of more (*39*)	**32** (34.40%)
Area of Certification	Core Academics Instructor (English/Language Arts, Math, Science, Social Studies) (*39 started survey*)	**29** (31.18%)
	Non-Core Academic Instructor (*18*)	**17** (18.28%)
	High School Career and Technical Education Instructor (FACS, Agriculture Education, Business, Industrial Technology, PLTW) (*23*)	**19** (20.43%)
	Career and Technology Center or Shared Time Career and Technical Education Instructor (*23*)	**20** (21.51%)
	Building Level Administrator (*12*)	**8** (8.6%)
	Central Office Administration (*0*)	**0** (0.00%)

Data Collection

According to Mertens (2010), data collection gathers information related to people and/or procedures. The current study utilized two methods of data collection: on-line survey with open-ended, depth questions. Research (Field, 2009; Fink, 2009; Gay & Airasian, 2003; Kruger & Casey, 2009; Merriam, 2009; Mertens, 2010; Sapsford, 1999; Seidman, 2006; Weiss, 1994) identified the significant impact generated from use of multiple methods of data collection when conducting research.

On-Line Survey Protocol

The survey was conducted using an on-line survey tool, called *SurveyMonkey*. Items for the survey came from a detailed review of the work of Stone and Lewis (2012). According to Stone and Lewis (2012) the areas of focus were prominent in the development of high-ranking programs of study where students were most successful in completing secondary education and moving into postsecondary education, advanced training and/or marketplace employment.

After the areas of focus were determined, the researcher met with administrators from career and technical education centers and comprehensive high schools in the suburban Kansas City area to develop questions that were not leading and provided unbiased opportunity to share one's perceptions on college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs of study (Fink, 2009, Sappsford, 1999, Stone & Lewis, 2012).

After meeting with these experts, the *College-Ready, Career-Ready, and Career- and College-Ready Opinion* (CoRCaR-CaCoR) survey instrument (see Appendix A) of

twenty-eight questions was developed. Upon development, the instrument was field tested in suburban Kansas City comprehensive high schools and career and technical education centers to determine elements of validity and reliability (Field, 2009, Fink, 2009, Gay & Airasian, 2003, Mertens, 2010). One of the conclusions from the field test process was that there was *design validity* (Fink, 2009, p. 72). In other words, the context and distribution mechanism for the survey was valid. Also, during field-testing specific wording and positioning of questions was adjusted as a result of input from field test participants who offered suggestions for improvement.

Next, the researcher analyzed the field test results using predetermined statistical analysis procedures (Field, 2009; Gay & Airasian, 2003; Mertens, 2010). The results of the statistical analysis represented valid logistics within the survey document, as well as obtained survey information that indicated a reliable and valid survey instrument – a concept Fink (2009, p. 72) called *measurement validity*. The researcher utilized results from an *independent t-test*; *one-way, between subjects ANOVA*; and *Pearson Correlation Coefficient*, as well as written responses from field test participants in the analysis of the results (Creswell, 2009; Field, 2009; Gay & Airasian, 2003; Mertens, 2010). Results indicated the instrument exhibited internal validity as described previously (Field, 2009, Mertens, 2010). Additionally, the results exhibited characteristics consistent with external validity as described previously (Field, 2009, Mertens, 2010). Review of the field test for generalizability and reliability (Fink, 2009, Mertens, 2010) determined that the instrument was prepared for use in a research study. Preliminary runs of statistical analysis indicated that data were reliable and valid (Field, 2009).

Mertens (2010), however, identified several advantages to this method of data collection, including: allowance for information to be shared anonymously, it is inexpensive to administer, data is easy to compare and analyze, and divergent populations of people can participate. On the other hand, researchers (Field, 2009; Gay & Airasian, 2003; Mertens, 2010) identified specific challenges to this type of data collection method, such as: feedback may not be carefully thought out or complete, wording can bias the respondent's answers, the method is impersonal, and the answers may not give the whole story. For the purposes of this study, this method appeared an appropriate approach for the quantitative portion of the study.

Qualitative Data Protocol

Although participants for the survey were selected by voluntary participation (Creswell, 2009; Gay & Airasian, 2003; Mertens, 2010), school selection was guided toward schools with a comprehensive high school and with access to a career and technical education center. The inclusion of qualitative, open-ended questions required an element of purposeful selection for the pool of voluntary participants (Field, 2009; Fink, 2009; Merriam, 2009; Sapsford, 1999; Seidman, 2006). Creswell (2009, p. 178) indicated this type of approach was vital to "best help the researcher understand the problem." The intention and actions of the researcher in selection of schools having a comprehensive high school and with access to a career and technical education center provided for comparative data from education stakeholders representing the broadest spectrum of programs of study.

The study utilized qualitative data obtained within the on-line survey (Field, 2009; Fink, 2009; Merriam, 2009). The questions were developed from conversations with

career and technical education administrators, current certified instructors and a university instructor. Four questions were chosen to open the survey from a limited response (Field, 2009; Fink, 2009) format to allow for a deeper and richer (Hatch, 2002) response from the survey participants. One question opened opportunity for the respondents to express opinions on the impact of initiatives on classroom instruction. Two questions asked the respondents to describe the influence perceived to exist between the instructor and students related to course selection and student engagement for college and career development at the secondary education level. The final question asked the respondent to describe the importance perceived to exist in recommendations made to students related to completion of high school and advancement to a career.

These questions were developed and presented to career and technical education administrators, instructors and comprehensive high school instructors for input (Fink, 2009). The researcher took input obtained from the reviews and reworded the questions to address deficiencies identified by the respondents (Fink, 2009; Kruger & Casey, 2009). These revised questions were included in the field test (Field, 2009; Fink, 2009) administered to comprehensive high school instructors and career and technical education instructors. Responses were analyzed from the field test to determine reliability (Gay & Airasian, 2003; Merriam, 2009; Mertens, 2010) of responses, as well as the questions capacity to elicit deep, rich opinions (Hatch, 2002).

The net result of the review and field test was that the qualitative questions were determined to have content validity (Mertens, 2010). Those respondents who reviewed the questions indicated that the questions allowed for a broad response that would provide the requested information. Field test respondents also indicated that the questions

provided an open opportunity for them to explain one's opinion in greater detail. Thus, it was determined that the items represented the sample of the perceptions of individuals in the research study (Mertens, 2010).

In reviewing the results of the field test, the researcher determined that the four qualitative questions had face validity (Gay & Airasian, 2003). According to Gay and Airasian (2003), the meaning of face validity has been determined to be a somewhat ambiguous construct; however, the current qualitative questions appeared to respondents in the field test to measure what the questions were designed to measure. Determining validity on a new instrument is far from an exact science (Field, 2009; Fink, 2009; Gay & Airasian, 2003; Mertens, 2010). The researcher determined from the input provided and review of the literature that the questions would suffice for the purpose of this study.

Human subjects' protection and other ethical considerations.

A comprehensive human subject's protection and ethical considerations document was developed for use with the present study (see Appendix A). University of Missouri-Columbia, Institutional Review Board (IRB) standards were adhered to and followed at all times. The researcher participated in the IRB certification process and received advance approval for implementation of the research program. Details of protections and other ethical considerations are detailed in the document (see Appendix A) and directions from the dissertation review committee and advisor were followed closely.

The researcher additionally addressed what is done to conceal or reveal individual identities within the context of the study and the subsequent write-up. Mertens (2010, p. 342) defines confidentiality as, "the privacy of individuals…protected in…the data they provide…handled and reported in such a way that [the provided data] cannot be

associated with them personally." Thus, it was determined in the present study to keep identities confidential. The researcher prioritized prevention of repercussions resulting from the revelation of identities from individuals who provided data.

Data Analysis

Credibility and interpretations (Field, 2009) within the study were determined through measures appropriate to statistical and data analysis. Quantitative measures focused on interpretable data analysis based on statistical formulas acceptable in education research (Creswell, 2009; Field, 2009; Fink, 2009; Mertens, 2010; Sapsford, 1999).

In determining whether male and female respondents will differ in their mean scores for college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) the research used an *independent t-test* (Field, 2009). This allowed the researcher to draw inferences related to whether being male or female had influence on one's openness toward each of these programs of study. The predictive assumption (Creswell, 2009) was that there was no difference between male and female respondents.

To review whether respondents with different years of experience in education will differ in their mean scores for college-ready, career-ready or career- and college-ready, a *one-way, between subjects ANOVA* (Field, 2009) was utilized. In addition, a review was conducted of whether respondents with different roles in education will differ in their mean scores for college-ready, career-ready and career- and college-ready utilizing the same *one-way, between subjects ANOVA* (Field, 2009). The researcher was

able to draw inferences related to whether years of experience or different roles in education were impacting on one's perceptions of these programs of study. The predictive assumption (Creswell, 2009) was that there was no difference between the years of experience and roles in education.

One's individual perception of preparation for post-graduation success can influence advice given to high school students related to programs of study. The relationship of the high school experience and inclination to recommend specific criteria for course selection predicts one's inclination toward recommending a college-ready, career-ready or career- and college-ready program of study. The researcher used a Pearson Correlation Coefficient test to determine the relationship of survey results where a respondent's tendency toward college-ready, career-ready, or career- and college-ready perceptions was measured.

Qualitative measures of input were obtained from survey participants responses to four open-ended questions contained within the on-line survey. The researcher was seeking input as to the differences that might exist for educational stakeholders related to one's perception of the importance of a college-ready, career-ready or career- and college-ready focus for successful completion of a comprehensive high school program of study and matriculation to postsecondary education, advanced training and/or marketplace placement immediately upon graduation. Data collected from the open-ended on-line survey questions was reviewed, coded and themes were determined (Creswell, 2009, Hatch, 2002, Mertens, 2010).

Role of Researcher (or Positionality)

The researcher worked within two research paradigms: positivist and post-positivist. The initial stages, the quantitative aspect of the research, was geared to find the reality that was out there to be studied, identified and understood (Hatch, 2002). As depth of data translation and understanding were reviewed, it was determined that reality exists; however, it could only be approximated; a characteristic of the post-positivist paradigm according to Hatch (2002). In the end, it was the combination of these two distinct research paradigms that offered the best outlook for determining the impact of the data collected. Predictions backed by generalizations, descriptions and patterns allowed the researcher to address the epistemology and methodology of a combined approach utilizing quantitative and qualitative strengths of a mixed methods design (Creswell, 2009, Gay & Airasian, 2003, Mertens, 2010).

The researcher was involved in all aspects of the research of the present study. The researcher generated the questionnaire and conducted the survey. In light of this depth of involvement, the researcher was required to be particularly aware of personal influence and bias, which could have impacted the study. For instance, the researcher has spent more than nine years working with career and technical education and the experience heavily influenced the early stages of development for the present study. A more global view was required to prevent the study from forming a confirmation of personal biases related to the needs of today's students and the influence of internal and external stakeholders on education.

Trustworthiness

Quality control in the quantitative portion of the study consisted of several measures. Prior to beginning research with participants, all survey questions were field tested (Fink, 2009; Field, 2009; Mertens, 2010; Sapsford, 1999) with non-participants in similar roles within local school districts across the metropolitan and suburban Kansas City, Missouri area. In addition, prior to beginning research with participants, all closed and open-ended questions were field tested with non-participants (Creswell, 2009; Kruger & Casey, 2009; Mertens, 2010) in similar roles. The purpose behind field tests (Mertens, 2010) was to pretest the procedures and questions. The survey was conducted using an on-line survey tool, called *SurveyMonkey*. Participants in the survey were selected by voluntary participation; however, in the qualitative portion of the study a process of purposeful selection was conducted to "best help the researcher understand the problem" (Creswell, 2009, p. 178).

Transferability was monitored through the use of triangulation of the quantitative and qualitative data. For example, participants in the qualitative portion of the study were allowed to provide thick descriptions and answers to the questions presented (Mertens, 2010). In addition, the quantitative portion of the study sought a broad recruitment of participants to ensure transferability of the collected results (Field, 2009). Dependability was evaluated using documentation of the process and noting changes (Mertens, 2010). If processes changed during the collection of research data these variations were monitored.

Summary

Improvement of schools is essential for American advancement, survival and recovery (Toch, 1991). A perceived challenge was how to manage career-ready

preparation in the secondary setting (Brand, 2003; Castellano, Stringfield, & Stone, 2003; CORD & NASDCTEc, 2012; DeLuca, Plank, & Estacion, 2006; Stone & Lewis, 2012). Career-ready preparation is perceived as second-rate to college preparatory studies in school districts (Brand, 2003; CORD & NASDCTEc, 2012; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Stone & Lewis, 2012). The overarching question for the present mixed methods study (Creswell, 2009; Merriam, 2009; Mertens, 2010) explored perceptions of career- and college-ready education programs by stakeholders. Additionally, the study sought to determine if perceptions create barriers to engagement in career- and college-ready program completion.

In Chapter Three, the research design and methodology for the study were described. The purpose of the study was to examine stakeholder perceptions of college-, career-, and career- and college-ready programs of study and the impact these perceptions have on creating barriers for students with enrollment and completion of desired paths of study. The rationale for the mix methods design used for this study was provided, the population and sampling for the study depicted, and instrumentation used in the study was explained. Concluding the chapter was the data collection methods and data analyses were detailed to assist in replication of the study.

Included in Chapter Four is the data analysis for the present study. In addition, there is detailed interpretation of the research findings. A thorough discussion of the results, findings, and conclusions will be found in Chapter 5, along with implications and recommendations for future research.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this study was to assess if internal education stakeholder perceptions of career- and college-ready education create barriers to student engagement; thereby, impeding progress in career preparation during secondary matriculation. The design of this mixed methods study (Cresswell, 2009; Merriam, 2009) facilitated exploration of perceptions of career- and college-ready education held by internal education stakeholders. Additionally, the study sought to determine if one's perceptions create barriers to engagement in career- and college-ready program enrollment and completion for students.

Chapter Four includes a presentation of the structure for collection, synthesis, and analysis of respondent data. Specifically, this chapter reviews the design of the study, the data collection methods, the conceptual underpinnings and a restatement of the research questions. In addition, the chapter presents specifics on the process of data analysis, the study's settings, brief review of the demographics for the participants and a presentation of the electronically determined qualitative themes.

Study Design

The study utilized a single investigation, mixed methods design (Mertens, 2010). The mixed methods analysis used quantitative and qualitative procedures in "design, data collection and analysis" (Mertens, 2010, p. 293) to secure responses to specified research questions. The study used a survey (Fink, 2009; Gay & Airasian, 2003; Sapsford, 1999) with twenty-four closed-ended questions and four open ended questions to measure the

relationship between perceptions of career- and college-ready programs and one's propensity to recommend participation in college-ready (e.g., Advanced Placement [AP], International Baccalaureate [IB], or Dual Credit Courses [DCC]), career-ready (e.g., Career and Technical Education Coursework [CTE], Distributive Education Clubs of America [DECA], Future Business Leaders of America [FBLA], Family, Career and Community Leaders of America [FCCLA], or Future Famers of America [FFA]) or career- and college-ready (a combination of college-ready and career-ready opportunities [examples given previously] based on student interest and a multi-pronged plan for achieving strong academics and advanced training/experience while the student is still in high school) programs at the secondary level (Field, 2009; Gay & Airasian, 2003; Mertens, 2010; Merriam, 2010). The responses of participants provided the researcher with information to explore and assess local education stakeholder perceptions and potential barriers to promotion of career-ready and career- and college-ready programs, resulting in disadvantage for career-focused program completion. Combining the two types of data served to aide the research by converging both quantitative – broad numeric trends – and qualitative – detailed views – data (Creswell, 2009; Merriam, 2010; Mertens, 2010).

The chosen research hypothesis was that there would be no significant difference between one's perception of college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs of study and one's openness to recommend career-ready education programs to all students attending the school where the individual works (Creswell, 2009; Merriam, 2010; Mertens, 2010). By using a mixed

methods analysis (Creswell, 2009; Merriam, 2010), the study sought qualitative information related to barriers created by the perceptions of internal stakeholders potentially creating a disadvantage for students attempting to complete career-focused instruction and/or combining rigorous academics with technical skill training at the secondary level.

Data Collection Methods

Data collection involved use of an on-line survey tool. School buildings volunteered to participate in the research and district/building gatekeeper approval was obtained prior to initiating contact with any potential respondent. Upon completion of the gatekeeper approval process, the research was submitted to the University of Missouri – Columbia, Institutional Review Board (IRB) for approval. With IRB approval, the survey was opened on-line and an email was sent to the building level administrator for distribution to all staff. In the email, the respondent was introduced to the research project and a link was provided to the survey.

Communication with potential respondents was limited to three email contacts, each sent one-week apart over the course of the survey window. The researcher had no contact with individual respondents. The building administrators managed all communication in the local district. Each email was created to be a positive request with a clear indication of the length of the survey window and the deadline for completion of the survey.

One week after the first, a second email was sent to the building administrators for distribution to all staff. Again, this email contained a brief explanation of the research and a link to the survey. Two weeks later, a third, and final, correspondence was sent to

the building administrator for distribution. This correspondence included emphasis on the closing of the survey window (date and time) and a link to the survey.

Data were collected and stored by the on-line survey provider. No identifying information was requested of the respondents to protect and ensure anonymity, but the on-line service provider treated each respondent as unique. Respondents were given random numbers as an identifier to ensure that no one submitted duplicate responses. At the end of the survey window, the researcher closed the on-line survey so that it was no longer available to the public.

The on-line service provider collected and stored data prior to the end of the survey window and after the survey was completed. The data was partially analyzed by *SurveyMonkey*. In addition, files were obtained from the service provider included the responses in several different formats for use with review, statistical analysis and in determining the results of the survey. Respondent data are not available to the public and has been stored by random number identifiers to ensure confidentiality.

For qualitative data collection and analysis, the same method was utilized. The on-line service provider maintained responses to the four open-ended questions. The responses were kept in the same file as the quantitative data and addressed by the same unique, random number identifier. Data were reviewed both electronically and by visual analysis. Responses were electronically printed and color-coded by theme prior to evaluation.

Conceptual Underpinnings

Current debate between business and industry, education and governmental agencies continues to probe the validity of establishing the overarching goal for effective

education as: (a) the assurance all students successfully achieve college-ready standards; or (b) technical and occupational expressions of academic knowledge, technical skills unique to a career path, and employability skills applicable to a variety of work environments (CORD & NASDCTEc, 2012; Scott & Sarkees-Wircenski, 2008; Stone & Lewis, 2012). Research (Brand, 2003; Castellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001) lends credence to the latter position and presents challenges to the current focus of state education agencies while these agencies attempt to address the combined needs of students, parents, communities, postsecondary institutions, business and industry.

Progressive educational reform continues to expand academic requirements within the high school curriculum, sometimes to the exclusion of career-ready preparation (Stone & Lewis, 2012). The combination of career- and college-ready instruction is made more difficult by the perception that career-ready preparation results in a second-rate option for secondary studies; however, career-ready research (Brand, 2003; Castellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001) reveals valuable arguments for increased student achievement resulting from the connection between academic and technical skill training. Stone and Lewis (2012) noted contemporary students face an uphill battle to enroll, complete and graduate from high school with career-ready training due to perceptions that combining career- and college-ready studies result in substandard preparation for students. These authors advocate for America to produce high school graduates who are both career- and college-ready and possess the capacity to successfully complete at least one year of postsecondary education/training; however, local school

districts lament state and federal legislative acts, directives or mandates as they appear to require graduates who are exclusively college-ready.

Determining that a focus on collaboration and commitment to participants (Hatch, 2002) was necessary for inclusion of all students, social justice leadership theory was chosen as a conceptual frame for the present study. The advantages of this theory proved to include: the approach to change (Ayers, Quinn & Stovall, 2009) – the challenge to the status quo; the commitment to dismantle bias (Preskill & Brookefield, 2009); and the capacity to prioritize a commitment to end oppression and build equity (Theoharis, 2008). From the broader subject of social justice theory, the study focus was narrowed to social justice in education (Ayers, Quinn, & Stovall, 2009) and the ethic of community (Furman, 2004). This allowed the current research to be framed around whether all students benefit from the traditional focus of secondary education (*college-for-all*) or a revised approach, which provides all students career- and college-ready academic and technical-skill development.

The most appropriate conceptual framework would require a theory with greater capacity to assess the impact and influence of structure, legislation, human influence and assessment of the needs of individuals as part of the frame. The researcher reviewed three theories in which the relationship provided progressive deepening and expansion of the conceptual framework. The researcher began with knowledge sharing and knowledge management and shifted to a related framework with greater application called stakeholder theory. The deficiencies of knowledge sharing and knowledge management, as well as stakeholder theory, required further investigation to identify a conceptual framework providing greater allowance for the roles and influences of students,

parents/guardians, business and industry, and the community. The effectiveness of social justice and the ethic of community as a conceptual framework appeared to address the deficiencies of knowledge sharing and knowledge management and stakeholder theory.

The current need in American is to train and educate a workforce that meets career- and college-ready standards (Stone & Lewis, 2012). Researchers (Brand, 2003; Costellano, Stringfield, & Stone, 2003; DeLuca, Plank, & Estacion, 2006; Gray, 2004; Kavis, 2005; Lynch, 2000; Plank, 2001; Stone & Lewis, 2012) identified an alarming trend in which traditional secondary education programs focus almost exclusively on production of college-ready students. Change requires substantial effort to re-educate politicians, school board members, administrators, instructors, counselors, parent(s)/guardian(s) and students to the benefits of programs of study focused on career- and college-ready graduates. Business and industry representatives, as well as federal government officials have made the clarion call for reform; however, according to Stone and Lewis (2012), change lags behind as education stakeholders, both internal and external, continue to impede enrollment and completion of secondary career- and college-ready programming as a result of the traditional *college-for-all* philosophy.

Research Questions

The chosen research hypothesis was that there would be no significant difference between one's perception college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) programs of study and one's openness to recommend career-ready education programs to all students attending the school where the individual works (Creswell, 2009; Merriam, 2010; Mertens, 2010). By use of a mixed

methods analysis (Creswell, 2009; Merriam, 2010), the study sought qualitative information related to barriers created by the perceptions of internal stakeholders potentially creating disadvantage for students attempting to complete career-focused instruction and/or combining rigorous academics with technical skill training at the secondary level.

The following research questions were addressed within the context of this study:

1. Do perceptions of college-ready, career-ready or career- and college-ready programs of study create barriers to student engagement and impede progress in career preparation during secondary matriculation?
2. Do male and female respondents differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready, and career- and college-ready philosophy?
3. Do respondents with different years of experience in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?
4. Do respondents with different roles in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?
5. How do individuals perceptions of their own college-ready, career-ready, or career- and college-ready philosophy influence what is presented to students related to secondary matriculation?
6. How do perceptions of college-ready, career-ready, or career- and college-ready philosophy create barriers to progress during secondary matriculation?

Process of Data Analysis

Data analyses involved three primary steps. First, there was a statistical analysis of quantitative information obtained through administration of a survey instrument. Next, there was a thematic analysis of the qualitative information obtained through open-ended questions contained within the quantitative survey administered on-line. Finally, the researcher conducted a triangulation of data to combine the quantitative and qualitative data obtained in the on-line survey. Although each analysis of the quantitative and qualitative data was conducted separately, triangulation melded the data into a richer understanding.

Data collection consisted of participants completing an on-line survey distributed via email by the local building administrator after district/building level gatekeeper consent was obtained. Informed consent was provided for each participant as part of the introduction to the survey. To protect participants, respondents could exit the survey at any time without repercussion (as twenty-two respondents [19%] did - their responses were disqualified as incomplete by the researcher). Each quantitative research question was analyzed according to a predetermined, specified testing method.

Two answer categories were available throughout the survey. The basic and most recurring question type, required participants to respond by choosing one of the following responses: strongly disagree, somewhat disagree, somewhat agree, and strongly agree. These questions were scored 1 point for strongly disagree, 2 points for somewhat disagree, 3 points for somewhat agree and 4 points for strongly agree. Other questions required the participant to rate the response on a scale of 1 to 9. To ensure these questions did not skew the results, the responses were adapted to the following values: 1 – 1; 2 –

1.375; 3 – 1.75; 4 – 2.125; 5 – 2.5; 6 – 2.875; 7 – 3.25; 8 – 3.65; and 9 – 4. Mean scores of responses were then calculated using the two 4-point response scales.

In addition, the questions on the survey were determined to apply to one or more of the three categories: college-ready, career-ready, or career- and college-ready. The college-ready inclination score was determined to be the result of the combined responses to survey questions: 4a, 4d, 4g, 5, 7, 9, 11, 15, 16a, 16b, 16c, 17, 19, 23a, 27b, and 27c. (see Appendix B) The career-ready inclination score was determined to be the result of the combined responses to survey questions: 4b, 4c, 4e, 4f, 6, 7, 10, 13, 14a, 14b, 14c, 20, 23a, 23b, 23c, 23d, 27c, and 27d. Finally, the career- and college-ready inclination score was determined to be the result of the combined responses to survey questions: 4a, 4b, 4c, 4d, 4e, 4f, 4g, 5, 6, 7, 8, 9, 10, 11, 13, 14a, 14b, 14c, 15, 16a, 16b, 16c, 17, 18, 19, 20, 21, 22, 23a, 23b, 23c, 23d, 24, 27a and 27c. The mean was calculated through the use of a spreadsheet to establish composite scores in each of the three categories: college-ready, career-ready, and career- and college-ready.

Research question one postulated male and female respondents do not differ in mean scores calculated for one's college-ready, career-ready, and career- and college-ready perspective. An independent t-test was utilized to compare male and female respondents on each of the three categories. Analysis was then completed based on the results of the t-test for two samples with equal variance (Fields, 2009).

Research question two postulated respondents with different years of experience in education do not differ in their mean scores for college-ready, career-ready and career- and college-ready. A one-way, between subjects ANOVA was then completed for each of the three inclinations to compare across each specified category for years of experience in

education. Analysis was then completed based on the results from the ANOVA test for standard weight means analysis (Fields, 2009).

The third research question postulated respondents with different roles in education do not differ in their mean scores for college-ready, career-ready and career- and college-ready. A one-way, between subjects ANOVA was then completed for each of the three inclinations to compare across each specified category area of teacher certification respondents indicated. Analysis was then completed based on the results from the ANOVA test for standard weight means analysis (Field, 2009).

The fourth research question, in the quantitative analysis section of the survey, postulated individual perception of preparation for post-graduation success, influence of the high school experience and inclination to recommend specific criteria for course selection do not predict one's tendency toward a college-ready, career-ready, or career- and college-ready perspective. A linear correlation and regression test, the *Pearson Correlation Coefficient*, was utilized to determine the relationship of survey results in relation to perception of preparation for post-graduation success, influence of the high school experience, and inclination to recommend specific criteria for course selection and a respondent's inclination toward a college-ready, career-ready, or career- and college-ready philosophy, as determined by a composite mean score to specific questions within the survey.

To secure a comparative mean, the mean score of survey questions 4a, 4b, 4c, 4d, 4e, 4f, 4g, 5, and 19 measured respondents' perceptions of preparation for post-graduation success. The mean score of survey questions 14a, 14b, 14c, 16a, 16b, 16c, 21, 23a, 23b, 23c, and 23d measured respondents' perceptions of the influence of the high

school experience. Finally, the mean score of survey questions 21, 24, 27a, 27b, 27c, and 27d was utilized to measure respondents' inclinations to recommend specific criteria for course selection.

Data from surveys received were recorded as raw data from individual participants. The items on the survey completed by participants, however, were not grouped together by orientation (college-ready, career-ready, or career- and college-ready). This required the regrouping of responses from individual participants to obtain a score for each of the three categories. A spreadsheet was utilized to calculate the mean score for each of the three categories with participants. The resulting mean scores were then used as a comparative score for each participant in the area of college-ready, career-ready, and career- and college-ready. For subsequent statistical analysis tests, these scores were then transferred into a statistical analysis program to complete the predetermined test for significance.

The data were quantitatively analyzed to determine if there were differences in the mean scores for each of the categories related to the research question variables. The data analyses are presented for each research question using an alpha of $p < .05$ to determine if there was a significant difference for each category and variable chosen for comparison. This information can be found in Chapter 5 *Summary of Findings*.

The second phase of the study, or the qualitative analysis, centered on communicated differences from internal education stakeholders related to one's perceptions of the importance of a college-ready, career-ready, or career- and college-ready focus for successful completion of high school. Open-ended questions allowed respondents to voice opinions on the influence of STEM (Science, Technology,

Engineering and Mathematics) initiatives on instruction, teacher influence on student course selection, teacher influence on student engagement for college and career development, and completing the statement: "*My recommendations for a program of study are important because…"*

All educators participating in the survey were given opportunity to answer the four open-ended questions. The educators were able, and encouraged, to provide rich discussion of the main ideas for each of these questions. Data from the responses were analyzed for content and focus, determining the key words used by respondents. The top five categories of responses were identified as holding the strongest themes for each question and formed the primary impetus of the analysis.

Phase three of the data collection and analysis process included the researcher triangulating the quantitative and qualitative data. The research questions expressed the opinions of educators through direct contact with students related to course selection, influence on course selection and ability to lead students through recommendations in course and program of study selection. The obtained data were coded utilizing grouping and labeling methods (Gay &Airasian, 2003, Mertens, 2010, Merriam, 2009). Common responses were aligned, forming subscales and emergent themes within the responses (Creswell & Clark, 2007).

Settings

The administrator at the institution contacted survey participants via email where they were employed. Participating public high schools were located in suburban Kansas City and rural west central Missouri. Career and technology centers that participated represented southwest Missouri, southeast Missouri and one was in rural northeast

Missouri (about 100 miles from St. Louis). The number of potential educators contacted at each site ranged from less than 50 at the most rural institutions to over 100 at the suburban institution. The survey was conducted between late April and early May of 2016. This time period was selected to coordinate with the end of school breaks in the spring and prior to end of the year testing and dismissal.

Participants

The participants of this study were employed as educators or administrators in career and technical education centers and public high schools in the State of Missouri. Three career centers and two high schools participated in the study with a potential of approximately two hundred and fifty (250) educators and administrators available for the study. Purposeful sampling was used for this study and was based on the local administrator volunteering to serve as the distributor of the survey to building staff. The high schools utilized represented both suburban and rural Missouri. The career centers balanced the distribution of the survey to four quadrants of the State of Missouri (Northeast, Southeast, West Central and Southwest).

Chief school administrators or building administrators determined the eligibility of the local facility to participate in the study according to School Board policy. An introductory letter distributed to all participating facilities included the Gatekeeper Form and an explanation of procedures. School Superintendents or Building Administrators completed the Gatekeeper Form and returned it to the researcher prior to IRB approval, and the survey distributed to staff. School staff received the Informed Consent Form as part of the survey distributed via email by the local building administrator. Staff voluntarily chose to complete the on-line survey and the researcher collected responses

through the survey device, which gathered demographic data for the individual. Informed consent was substantially agreed to by completion of the survey and only surveys with complete results were utilized in analysis.

The local, public school attendance center, or school, was the unit of analysis used for the study. Both career and technical education centers and public high schools were utilized. For the study, forty-eight (48) chief administrators were initially contacted resulting in sixty-nine (69) building principals contacted for permission to survey staff. Of the chief administrators contacted, 10% responded by granting permission, 29% responded to decline granting permission, and 61% did not respond to either the initial letter or follow-up letters. From the participating schools, 100% of the buildings had staff respond to the survey, a return rate of 46% (115 of approximately 250 eligible participants). This provided the demographic data of participants for the study. From the respondents, 37% (or ninety-three participants) of the total population and 81% of those who began the survey accepted the informed consent and completed the entire survey.

The demographic data selected for inclusion on the survey was: gender, years of experience in education, and job responsibility/area of certification. The data reflected both respondents who started the survey and those who completed the survey. For clarity, both types of data on the respondents are included in the following figure (Figure 1) for the reader. Participants who did not complete all twenty-eight (28) questions were not included in the final statistical analysis. The informed consent designated that stopping the survey at any point indicated the respondents desire to no longer participate in the research.

Figure 1. Demographic data of survey participants (**93** of *115* completed the survey).

Demographic	Choices	Results
Gender	Male (*51 started survey*)	**43** (46.24%)
	Female (*64*)	**50** (53.76%)
Years of Experience	Completing 1-5 years (*11 started survey*)	**8** (8.60%)
	Completing 5-10 years (*23*)	**19** (20.43%)
	Completing 11-15 years (*18*)	**12** (12.90%)
	Completing 16-20 years (*24*)	**22** (23.66%)
	Completing 20 years of more (*39*)	**32** (34.40%)
Area of Certification	Core Academics Instructor (*39 started survey*)	**29** (31.18%)
	Non-Core Academic Instructor (*18*)	**17** (18.28%)
	High School Career and Technical Education Instructor (*23*)	**19** (20.43%)
	Career and Technology Center or Shared Time Career and Technical Education Instructor (*23*)	**20** (21.51%)
	Building Level Administrator (*12*)	**8** (8.6%)
	Central Office Administration (*0*)	**0** (0.00%)

In addition, participants were given the opportunity to respond to four open-ended questions seeking non-directed statements of participant opinions to obtain a richer example of respondent opinions. Of the staff participating in the survey, ninety-three (93) [81%] completed all four open-ended questions and twenty-two (22) [19%] did not, disqualifying their responses from being included in the analysis. After completion of the

survey, the researcher determined that of the ninety-three (93) completed surveys: twelve (12) [13%] of the respondents were oriented toward a college-ready perspective, thirty-three (33) [35%] of the respondents were oriented toward a career-ready perspective and forty-eight (48) [52%] of the respondents were oriented toward a career- and college-ready perspective.

Themes

In the qualitative analysis, themes were determined from respondents' comments on four open-ended questions in the survey instrument. These comments were analyzed electronically and then reviewed by the researcher to determine strength of application to the analysis. It was determined that the top five themes for the questions held the strongest identification of themes for analysis.

A complete analysis and summary of the respondent comments is included in Chapter Five. Therefore, Chapter Four focuses on a visual representation of the themes determined by an electronic evaluation of the data. In addition, the number of occurrences for each theme is included for review.

The first open-ended question themes were: STEM [22 (22.45%)], Skills [17 (17.35%)], Teach and Think [13/13 (13.27%)], Impact [12 (12.24%)] and Help Students [10 (10.20%)] [see Figure 2]. There were fifteen (15) other themes considered; however, none occurred with up to 10% of the respondents (occurrences ranged from 8.16% to 2.04%).

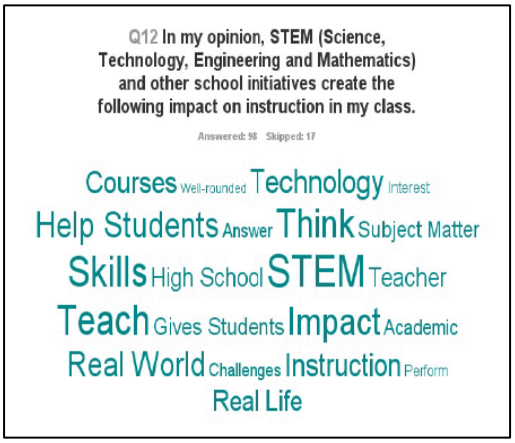

Figure 2. Word Chart for Open-ended Question 12

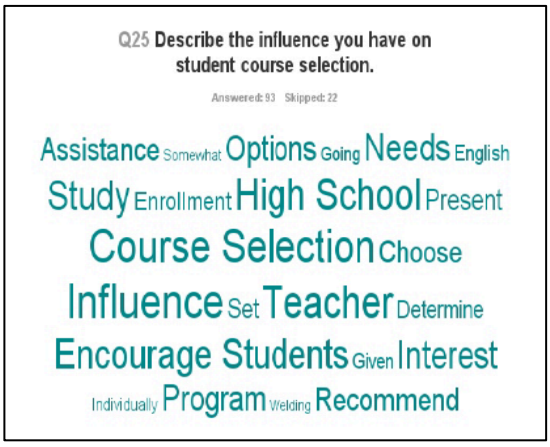

Figure 3. Word Chart for Open-ended Question 25

Themes for the second open-ended question were: Influence [16 (17.20%)], Course Selection [10 (10.75%)], Teacher [9 (9.68%)], High School [8 (8.60%)], and Encourage Students/Study/Interest [7/7/7 (all 7.53% each)] [see Figure 3]. There were sixteen (16) other themes identified; however, none of these themes occurred more than 6% of the respondents (occurrences ranged from 5.38% to 2.15%).

The third open-ended question themes were: College [27 (29.03%)], Career [25 (26.88%)], Influence [21 (22.68%)], School [14 (15.05%)], and Real World [11 (11.83%) / Skills [9 (9.68%)] [see Figure 4]. There were fifteen (15) other themes identified; however, none of these themes occurred more than 8% of the respondents (occurrences ranged from 7.53% to 2.15%).

Figure 4. Word Chart for Open-ended Question 26

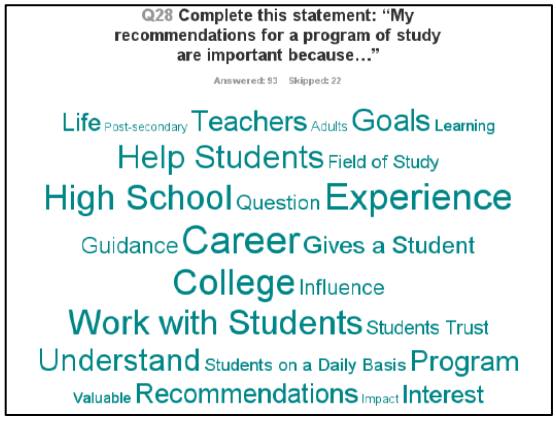

Figure 5. Word Chart for Open-ended Question 28

The fourth open-ended question themes were: Career/Experience [15 / 15 (16.13%)], College [14 (15.05%)], High School [12 (12.90%)], Work with Students [12 (12.90%)], Help Students/Understand [10 / 10 (10.75% each)] [see Figure 5]. There were eighteen (18) other themes identified; however, none occurred with more than 9% of the respondents (occurrences ranged from 8.60% to 2.15%).

Summary

Chapter Four includes a presentation of the structure for collection, synthesis, and analysis of respondent data. Specifically, this chapter reviews the design of the study, the data collection methods, the conceptual underpinnings and a restatement of the research questions. In addition, the chapter presents specifics on the process of data analysis, the study's settings, brief review of the demographics for the participants and a presentation of the electronically determined qualitative themes. A summary of the findings, limitations of the study, implications for practice, recommendations for future research, conclusions and summary are presented in Chapter Five.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

Introduction

This mixed design study investigated how teacher inclination toward a college-ready (e.g., Advanced Placement [AP], International Baccalaureate [IB], or Dual Credit Courses [DCC]), career-ready (e.g., Career and Technical Education Coursework [CTE], Distributive Education Clubs of America [DECA], Future Business Leaders of America [FBLA], Family, Career and Community Leaders of America [FCCLA], or Future Famers of America [FFA]) or career- and college-ready (a combination of college-ready and career-ready opportunities [examples given previously] based on student interest and a multi-pronged plan for achieving strong academics and advanced training/experience while the student is still in high school) philosophy might create barriers to student engagement and matriculation at the secondary level. The characteristics of educator orientation were studied in school organizations by examining internal stakeholder perceptions that identify individuals as being inclined toward a college-ready, career-ready, or career- and college-ready philosophy. Further study sought deep rich context from respondents through the use of open-ended questions contained within a survey administered in high schools and career and technology centers regionally located in the State of Missouri.

Trends in educational reform for the 21st Century seek to improve the perception of career-ready education in institutions long holding the mantra *college for all*. Real world, contextualized learning modalities are designed to reshape educators' perceptions of college and career oriented education. The present study examined current teacher

perceptions of college-ready, career-ready and career- and college- ready education for high school, career and technical education within high schools and career and technology centers or shared-time centers with a range of respondents. In addition, the research increased awareness of the impact education stakeholder perceptions of college-ready, career-ready and career- and college-ready preparation have in establishing success for students enrolling in, and completing, a variety of secondary education training programs.

Summary of Findings

The following research questions were addressed within the context of this study:

1. Do perceptions of college-ready, career-ready or career- and college-ready programs of study create barriers to student engagement and impede progress in career preparation during secondary matriculation?
2. Do male and female respondents differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready, and career- and college-ready philosophy?
3. Do respondents with different years of experience in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?
4. Do respondents with different roles in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?

5. How do individuals perceptions of their own college-ready, career-ready, or career- and college-ready philosophy influence what is presented to students related to secondary matriculation?
6. How do perceptions of college-ready, career-ready, or career- and college-ready philosophy create barriers to progress during secondary matriculation?

The data analyses were synthesized and blended with the review of research to provide a platform for addressing each research question.

Quantitative Analysis

Research Question 2: Do male and female respondents differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready, and career- and college-ready philosophy?

Differences were examined between male and female responses by calculating a composite mean score for college-ready, career-ready, and career- and college-ready perspectives. Participants responded to a series of questions predetermined to identify the individual's perceptions and inclinations. This characteristic served as a subscale on the survey and was measured by combining categorical questions as previously stated. The means and standard deviations for males and females are included in Table 1.

Table 1

Means and Standard Deviations for Males and Females in Sample Population

	College-Ready	Career-Ready	Career- and College-Ready	All Males and All Females
Males	3.04 (.30)	3.24 (.25)	3.25 (.26)	3.17 (.29)
Females	3.16 (.32)	3.25 (.29)	3.33 (.28)	3.25 (.30)

A t-test was conducted to analyze the difference between males and females and the composite mean score obtained from combining the question responses for college-ready, career-ready, and career- and college-ready. The following table (Table 2) identifies the results obtained for this analysis. The output indicates that on average, in a two-tailed test, the mean comparison of males and females for: college-ready was insignificant, t (91) = +1.89, $p > 0.05$, $r = 0.19$; career-ready was insignificant, t (91) = +0.18, $p > 0.05$, $r = 0.19$; and, career- and college-ready was insignificant, t (91) = +1.48, $p > 0.05$, $r = 0.15$. Contained in Table 2 are the differences in means ($M_a - M_b$), t-score, degrees of freedom (*df*) and the *P*-score for each category.

Table 2

t-Test Mean Score Analysis for Males and Females

College-Ready				Career-Ready				Career- & College Ready			
$M_a - M_b$	t	df	P	$M_a - M_b$	t	df	P	$M_a - M_b$	t	df	P
0.12	+1.89	91	0.06	0.01	+0.18	91	0.86	0.0828	+1.48	91	0.14

Note: P-scores < 0.05 are considered significant.

Research Question 3: Do respondents with different years of experience in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?

Differences were examined for total years of experience by calculating a composite mean score for college-ready, career-ready, and career- and college-ready perspectives. Participants responded to a series of questions predetermined to indicate the individual's perceptions and inclinations. This characteristic served as a subscale on the survey and was measured by combining categorical questions as previously stated.

Table 3

Means and Standard Deviations for Reported Years of Experience

	1 to 5 years experience	6 to 10 years experience	11 to 15 years experience	16 to 20 years experience	>20 years experience
College-Ready	3.23 (.39)	3.13 (.26)	3.03 (.49)	3.07 (.31)	3.11 (.26)
Career-Ready	3.47 (.20)	3.51 (.22)	3.35 (.36)	3.37 (.33)	3.44 (.28)
Career- and College Ready	3.40 (.22)	3.33 (.22)	3.23 (.33)	3.24 (.31)	3.30 (.25)

A one-way ANOVA was performed for the independent samples and analyzed to determine if there was a significant difference between individuals within cohorts of experience (less than five years experience, six to ten years experience, eleven to fifteen years experience, sixteen to twenty years experience and over twenty years of experience) when using the composite mean score obtained from combining the questions used to identify if an individual was inclined toward college-ready, career-ready, and career- and college-ready. The following table (Table 4) identifies the results obtained from this analysis. The output indicates that on average, the comparison of years of experience for college-ready means was insignificant, F (4,88) = 0.58, $P > 0.05$; career-ready means was insignificant, F (4,88) = 1.01, $P > 0.05$; and career- and college-ready means was insignificant, F (4,88) = 0.82, $P > 0.05$. Contained in Table 4 are the SS, MS, F-score, and the P-score for each category.

Table 4

Years of Experience Means Compared on the Three Categories

College-Ready				Career-Ready				Career- & College Ready			
SS	MS	F	P	SS	MS	F	P	SS	MS	F	P
0.24	0.06	0.58	0.68	0.34	0.08	1.01	0.41	0.24	0.06	0.82	0.52

Note: P-scores < 0.05 are considered significant.

Research Question 4: Do respondents with different roles in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?

When examining differences in responses of individuals with various certification areas the mean scores obtained assessing one's inclination was calculated on a series of questions determined to assess one's leaning toward being college-ready, career-ready, or career- and college-ready. This characteristic served as a subscale on the survey and was measured by combining categorical questions as previously stated. The following table (Table 5) contains the means and standard deviations for job responsibilities or roles respondents have in the education setting.

Table 5

Means and Standard Deviations by Job Responsibility/Role in Education Setting

	Core Academics	**Non-Core Academics**	**High School CTE**	**Shared-Time CTE**	**Building Admin.**	**Central Admin.**
College-Ready	3.07 (.30)	3.12 (.33)	3.10 (.37)	3.11 (.36)	3.16 (.16)	0 (0)
Career-Ready	3.36 (.29)	3.35 (.28)	3.55 (.28)	3.51 (.27)	3.29 (.27)	0 (0)
Career- and College-Ready	3.24 (.28)	3.26 (.27)	3.38 (.24)	3.32 (.32)	3.27 (.12)	0 (0)

A one-way ANOVA was performed for the independent samples and analyzed to determine if there was a significant difference between someone certified in core academic instruction (English/Language Arts, Mathematics, Science, or Social Studies), non-core academic instruction, high school career and technical education instruction (FACS, Agriculture Education, Industrial Technology, and Project Lead the Way), career and technology center or shared-time center instruction, building level administration and central office administration. The following table (Table 6) identifies the results obtained from this analysis. The output indicates that on average the comparison of area of certification for college-ready means was insignificant, F (4,88) = 0.15, $P > 0.05$; career-ready means was significant, F (4,88) = 2.56, $P < 0.05$; and career- and college-ready means was insignificant, F (4,88) = 0.96, $P > 0.05$. Contained in Table 6 are the SS, MS, F-score, and the P-score for each category.

Table 6

Certification Area Means Compared on the Three Categories

College-Ready				Career-Ready				Career- & College Ready			
SS	MS	F	P	SS	MS	F	P	SS	MS	F	P
0.06	0.02	0.15	0.96	0.81	0.20	**2.56**	**0.04**	0.28	0.07	0.96	0.43

Note: P-scores < 0.05 are considered significant.

The statistically significant philosophical inclination was Career-Ready in this one-way ANOVA. The average means for all areas of certification were highest in this philosophical inclination. High School, Shared-Time and Career and Technical Education instructors means were 3.55 and 3.51 respectively as groups. Core and Non-Core Academic instructors grouped next at means of 3.36 and 3.35 respectively as groups. The

Building Administrators mean was 3.29. The College-Ready means for each group was also the lowest score when certification areas were used as a variable. Here the Core Academics group was lowest at 3.07 with High School Career and Technical Education at 3.10 and Shared-Time and Career and Technical Education instructors scoring at 3.11. Non-Core Academics was next at 3.12 and Building Administrators again were the highest at 3.16. Standard deviations for all groups and all philosophical inclinations were low.

From the statistical analysis, the researcher concluded that certification areas strongly connected to one's philosophical inclination towards a career-ready mindset. The weak college-ready outcomes promoted stronger career- and college-ready scores as the career-ready outcomes had greater influence on the composite career- and college-ready score. Standard deviation scores were low among all philosophical inclinations meaning that variance among categorical results were not significant.

Research Question 5: How do individuals perceptions of their own college-ready, career-ready, or career- and college-ready philosophy influence what is presented to students related to secondary matriculation?

The linear correlation and regression (Fields, 2009) is a standardized measure of the strength of the relationship between two variables. From the table below it is evident that the correlation between the variables and the three categories is significant. As stated previously, only a few questions were used to determine the mean score for each participant related to the three variables: perception of preparation for post-graduation success, influence of the high school experience, and inclination to recommend specific criteria for course selection. The scores on these variables are significantly related to the

individual's inclination toward college-ready, career-ready, and career- and college-ready.

The analysis of this question commences with a chart (Table 7) showing the calculation of the linear correlation and regression, or the *Pearson Correlation Coefficient*, in a three-by-three table. All variables strongly correlated to the three types of philosophical inclinations. The strong correlation was also positive leading the researcher to conclude that the higher the mean on the variable, the higher the mean would measure in the philosophical orientation. The table reveals that all of the correlations are considered large with a significance level $p < .001$.

Table 7

Pearson Correlation Coefficient of Variable to Philosophical Orientation Means

	College-Ready	Career-Ready	Career- and College-Ready
Perception of preparation for post-graduation success	$r = .68$ $p < .0001$	$r = .58$ $p < .0001$	$r = .70$ $p < .0001$
Influence of the high school experience	$r = .51$ $p < .0001$	$r = .73$ $p < .0001$	$r = .73$ $p < .0001$
Inclination to recommend specific criteria for course selection	$r = .67$ $p < .0001$	$r = .53$ $p < .0001$	$r = .60$ $p < .0001$

Qualitative Analyses

Research Question 6. *How do perceptions of college-ready, career-ready, or career- and college-ready philosophy create barriers to progress during secondary matriculation?*

Four open-ended questions provided additional information on influences to teacher perception of a college-ready, career-ready or career- and college-ready philosophy. The influence educators exercise to actively engage students in preparation for careers and advanced training and/or education was evaluated. Just as with quantitative elements of the survey instrument, each question in the qualitative phase was designed to give indication of one's inclination to influencing students, allowing the researcher to link data gathered from the survey with the responses.

As described previously, all teachers were presented with the open-ended questions. Figure 1 provides the demographic make-up of the respondents in the study.

Figure 1. Demographic data of survey participants (**93** of *115* completed the survey).

Demographic	Choices	Results
Gender	Male (*51 started survey*) Female (*64*)	**43** (46.24%) **50** (53.76%)
Years of Experience	Completing 1-5 years (*11 started survey*) Completing 5-10 years (*23*) Completing 11-15 years (*18*) Completing 16-20 years (*24*) Completing 20 years of more (*39*)	**8** (8.60%) **19** (20.43%) **12** (12.90%) **22** (23.66%) **32** (34.40%)
Area of Certification	Core Academics Instructor Non-Core Academic Instructor (*18*) High School Career and Technical Education (CTE) Instructor (*23*) Career and Technology Center or Shared Time CTE Instructor (*23*) Building Level Administrator (*12*) Central Office Administration (*0*)	**29** (31.18%) **17** (18.28%) **19** (20.43%) **20** (21.51%) **8** (8.60%) **0** (0.00%)

Of the one-hundred and fifteen (115) individuals who completed a large portion of the survey, twenty-two (22) chose to not answer one or more of the qualitative questions. Therefore, the response rate was ninety-three [93 (81%)] fully completed and twenty-two [22 (19%)] exiting the survey and leaving responses incomplete. Most individuals answered one or more of the questions; however, those not answering all of the open-ended questions were disqualified from analysis.

Responses of each question were analyzed for content and commonalities. Participants completed the entire survey; therefore, the informed consent form at the start of the survey served as permission to use the respondent's words as part of the analysis. Answers were electronically analyzed to determine key words for each question. Answers were then additionally reviewed by the researcher to ensure understanding of common words within the context of the specific and full statement. The researcher triangulated the responses by weaving them together with the data from the quantitative statistical analysis. The results follow in summary form.

For qualitative data, the constant comparative method of data analysis was used (Creswell & Clark, 2007; Merriam, 1998). This strategy of analysis provided a method for constructing categories through the sorting of units of data into groupings with commonalities. The responses to open-ended questions were coded, utilizing grouping and labeling after working through transcripts and identifying data categories, or themes, derived from the data. Through this process, connections between responses of multiple participants were found to have commonalities, which were identified by the researcher as themes.

Themes that emerged from analyses of the data collected through the open-ended questions linked instructor influence to student engagement and participation in secondary matriculation. Each question is represented in the analysis of the data collected. After the question is presented a review is included to identify areas of influence (positive and negative) for each type of response.

The first open-ended question: *In my opinion, STEM (Science, Technology, Engineering and Mathematics) and other school initiatives create the following impact on instruction in my class…* The five major categories resulting from the analysis were: STEM (22.45%), Skills (17.35%), Teach (13.27%), Think (13.27%), Impact (12.24%), and Help Students (10.20%).

STEM. Educators held many positive attitudes about students engaging with their learning through real-life, real world applications such as the STEM initiatives commonly available within schools. STEM courses produce students who "have clear goals in mind in the classroom," one respondent stated. A couple individuals stated that "STEM initiatives provide opportunities to apply core curriculum" concepts in real-world applications. STEM initiatives were felt to promote "creativity" and "exploration" in and out of the STEM curriculum. An educator added to this theme the comment, "If students and adults don't gain the knowledge to effectively use technology they will be at a disadvantage." Students who participate in STEM initiative programs are encouraged to "think outside the box" and this enhances STEM curriculum, core curriculum and non-core curriculum. One educator went as far as to say there is a need to include the "Arts" in STEM initiatives.

However, educators' views of the STEM initiatives were not always positive. Several respondents lamented the lack of available STEM programs and classes for Special Education students. Others indicated that although STEM initiatives are good for opening up collaboration and cooperation there is a tendency for some STEM initiative programs to not transfer to other settings or curricula. Some indicated that STEM is effective when the individual student is pursuing a career in the STEM field; however, students not pursuing a STEM-related field complain about the difficulty and challenge of the STEM process when learning new material. Finally, others felt that STEM initiatives diminished the instruction in the classroom as an added demand on an already tight schedule.

Skills. STEM initiatives were good for increasing "memorization skills and problem-solving analysis skills," according to one educator. Other educators commented on the expansion of a student's "base of knowledge" from STEM initiatives. Students develop skills related to "trial and error" procedures and are more inclined to "find solutions," according to several educators who noted these are a focus of STEM education. The "real world" applications were also a positive result of STEM initiatives for multiple respondents. Most participants who identified skills as a positive aspect of STEM initiatives related the acquisition of learning to a progressive building of knowledge and application.

Think and Teach. STEM initiatives help create "teaching opportunities and teaching materials for all classrooms," said one educator. Several educators commented on the development of "critical thinking" skills as a result of STEM initiatives. An observant educator commented, "I think it is important to identify earlier than we already

do in identifying students who are not going the traditional four year college route and getting them hooked into some kind of technical training program such as CTC." (sic) Classes with STEM initiatives are filled with "higher order thinking and application," according to several respondents. Multiple educators commented on the impact of reducing the need for remediation as a result of STEM initiatives.

Impact. Many of the things already discussed speak to the positive impact STEM initiatives have on the overall high school curriculum. Respondents, however, strongly spoke of the negative impact resulting from STEM curiculum. For instance, one respondent felt that the impact is not growing in the high school. This individual called for "great improvement in this area." Although some educators felt that students come into the classroom stronger or more prepared as a result of STEM activities, others were quick to point toward "little or no impact," "no impact," or "distraction from my curriculum."

Help Students. A common conclusion for the presence of STEM initiatives included helping "students to be better prepared and knowledgeable of the jobs they will be entering after school." Several educators again expressed the lack of help that STEM initiatives provide to Special Education students who may be excluded from these programs. A majority of the respondents indicated that STEM initiatives help students "apply knowledge to real-world settings." It was common for the participants to express that STEM activities create more engaged and challenged students in any classroom. It was the fact that STEM "stimulates" students, which was most commonly identified as a factor in believing this curriculum was valuable to the school setting.

The second open-ended question asked respondents to: *Describe the influence you have on student course selection.* The five major categories resulting from the analysis were: Influence (17.20%), Course Selection (10.75%), Teacher (9.68%), High School (8.60%), and Encourage Students/Study/Interest (each with 7.53%). The following summarizes how each category was used in the response to this question.

Influence. Educators were both hard on themselves and positive about their influence on students in choosing high school courses. In a morose way, educators bemoaned their influence due to a lack of "opportunity," "motivation," and the "exaggerated influence of the master schedule." Position in the curriculum also was identified as a negative influence on an instructor's ability to guide course selection.

On the brighter side, educators also saw themselves as strongly able to guide students in course selection as some reported it was a vital component of interactions with students. Educators were grateful for opportunities to "interview" students prior to enrollment to determine motivation and desire to engage with the curriculum. Educators were grateful for opportunities to "promote" courses and give students a taste of what would be addressed as part of the classroom instruction.

Course Selection. Some educators reported being an integral part of the design and offerings of the master course schedule. They reported feeling a sense of ownership in how students are led from introductory to advanced courses in curriculum designed around career pathways. Educators also reported participation of parents as vital in the process of course selection and a student taking ownership of the courses chosen in a four-year plan. The availability of advanced coursework, such as Advanced Placement

(AP), proved beneficial to educators as a means of assisting students in thinking about what they invest in from year to year.

Teacher. The most prominent influence as identified by educators in course selection process was a "relationship with the teacher." Relationships were the mitigating factor in allowing teachers to guide or recruit students into courses they taught. Relationships also allowed the educator to successfully recommend other courses or instructors. Again, the ability of the teacher to communicate and help parents understand offerings was a primary factor in successful course selection. Several educators also understood the importance of current students influencing future students when choosing courses. Some participants serve as academic advisors and value the opportunity to help students in course selection.

High School. The influence of peer pressure and the changing nature of a student's likes and dislikes were listed as a factor related to course selection. Using curriculum to promote career research was a process some educators identified as helping students. Several educators indicated the desire for high school to remain an opportunity for students to try new courses. In most cases, responses included the personal belief that students should take the most challenging courses available during high school to assert one's independence and attain personal goals.

Encourage Students/Study/Interests. Adapting teaching style to student interests ensured educator success in aiding students with course selection criteria. Supporting a student in her/his career path was also listed as important. Serving as a student mentor/coach received recognition by several respondents as an important factor in influencing course selection. Linking a student's present and future was another factor

listed by teachers as important to the process. One individual identified negative influences, such as the two-pronged tendency of students to lock into a plan while a rigid master schedule prevents pure interest selection of courses.

The third open-ended question asked respondents to: *Describe the influence you feel you have on student engagement for college and career development.* The five major categories resulting from the analysis were: College (29.03%), Career (26.88%), Influence (22.58%), School (15.05%), and Real World/Skills (11.83% and 9.68%, respectively). The following summarizes how these categories were used in the response to this question.

College. Several educators began comments with the sentiment that college is not for everyone. The politically correct mantra may be *college for all*, but educators see things a little differently. Those who espoused strong relationships with students were more inclined to prioritize student-led goals as opposed to pushing political agendas. Respondents also expressed that the rising need for employability skills was a balance for the traditional college preparatory focus. Preparation for a form of post-secondary education or training was often touted as the "new" focus for all classroom instruction.

College was also a popular focus for educators responding to this question. One respondent stated, "[Students] want to hear that they can go to college and excel. They just have to be encouraged to take the jump and do the work to get into college." Others supported this concept stating that there is an emphasis on designing and delivering a "rigorous" classroom instruction model. Several respondents mentioned participation in coaching or sponsoring extra-curricular activities as also building student confidence for studies beyond high school. "Discussions," "encouragement," and "mentoring" were

included as activities utilized to promote student engagement beyond high school in education and/or advanced training.

Career. When educators discussed careers there was an emphasis on the delivery of "information" that is "relevant" and "connected" to real-world applications. This was described as a key to bridging the gap "between the classroom and career/college goals." Incorporating input from business and industry for all levels and types of instruction was emphasized. Students will not understand the importance of what they are learning until they connect it to postsecondary or life experiences. Internships, apprenticeships and job shadowing were concepts described as ways of bringing curriculum to life. However, one instructor warned students "college is not a secure route to a career or career satisfaction."

Respondents described time as a factor working against the expansion of careers in the classroom. With the numerous mandates forced upon instructors, several felt the inability to make a difference. Core and non-core academic instructors lamented the minimal time devoted to career focus. On the other hand, educators in the field of Career and Technical Education expressed the need to track students after leaving high school to appropriately assess the program's effectiveness in training. One element that was clear from several respondents was that the advantage in succeeding with students is reserved for those instructors who develop relationships with their students beyond classroom instruction.

Influence. Students who return to the classroom and share work experiences encourage educators. Getting the "low down" on careers from professionals enhances reception of instruction for students. Allowing students to establish their own work

experience is also a key to developing stronger skills and a commitment to complete secondary and post-secondary training. The educator is often the beginning of this process and has a great deal of influence over a student's perspective on training and work experience. Multiple respondents shared examples of the influence exercised with students by describing the impact wielded with those who are not from or going into the instructor's area of certification.

On the other hand, multiple educators expressed frustration and disappointment resulting from the lack of influence they have on students. Overly "bureaucratic" organizations, "helicopter" parenting, and micro-management at the building level impede the efforts of educators to influence students positively. This occurs so much in some environments that one respondent said, "I have little to no impact on student engagement."

School. Educators use student success in school as a means to encourage engagement in "some kind of school setting to continue to learn more." One educator indicated the need to teach "soft skills that are critical to success beyond high school." In spite of the positive influence of school, educators communicated that some schools fail students by allowing them to drift without a "defined plan, even in their final year of high school." Good instruction was defined by respondents as including both application to higher education and advanced training. Limited knowledge possessed by some teachers was identified as a limitation on instruction. Educators can be familiar with several areas; however, it is not likely that the educator will be familiar with all areas of student interest.

"Hiring" of educators was expressed as a key to making the school environment amendable to the various interests of the students. "Mobility" was also designated as a strong characteristic of the classroom with a focus on college and careers. Being able to move and teach in various environments were listed as important components for student achievement. Finally, respondents talked of the need to remove "non-necessary" instructional programs from the curriculum. Multiple educators recognized the need for students to be able to control course selection and instructional delivery when focusing on successful transition from high school to higher education, employment or advanced training.

Real World/Skills. Educators design instruction with a focus on "hands-on" and "real world" experiences. Several indicated the importance of providing "real-world examples and opportunities" to aid students in preparing for future educational plans. Educators listed "overcoming challenges," "improving work ethic," "responsibility" and "self-discipline" as keys to success after graduation from high school. An educators job includes "helping [students] reach their potential and teaching them how to learn," according to respondents on the survey.

Survey participants emphasized the "new" work skills of "working in groups," "problem-solving," "literacy skills," and "computational skills." In essence, teaching has begun to focus on "fostering maturation" in students. When educators identify a lack of engagement on the part of students, there must be a correlating "change in how [the teacher] is presenting the material." Students now appear savvy at evaluating and assessing the classroom. When they encounter "relevance," effort and achievement

advance. “Project-based learning” is the trend identified in today’s classroom for good instruction.

The fourth open-ended question asked participants to complete the following prompt: “*My recommendations for a program of study are important because…*”. The five major categories resulting from the analysis were: Experience/Career (both 16.13%), College (15.05%), High School (12.90%), Work with Students (12.90%), and Understand/Help Students (both 10.75%). The following summarizes how these categories were used in the response to this question.

Experience/Career. One educator stated that recommendations made to students are important because,” education is the doorway to jobs that will help the student lead good productive lives in the future.” One educator touted seventeen years in the field before going into education as the basis for students listening to the advice offered. Multiple educators cited one’s own college education as the reason for students to listen to the recommendations made for programs of study. Learning from one’s own experience was also mentioned multiple times as the reason why students consider advice. Why make the same mistake that someone else has learned from was also identified by respondents. Educators do not share things haphazardly; instead, survey respondents talked about the time and effort put into organizing material and experiences that provide “short-cuts” through hard to navigate programs and procedures.

With the knowledge of one’s career or field of experience, educators appeared ready, willing, and capable of providing students with comprehensive plans for achieving goals beyond high school graduation. Several educators mentioned the process of “research” as a means of helping students draw their own conclusions from the

information and experiences of the instructor. Participants often mentioned the need to "spark an interest" or "fan a flame" for students when it came to career exploration. In addition, several instructors mentioned the importance of what is offered in school when there is no investment in the student's future in the home.

College. Not all students will go to college. Not all students are ready to go to college. Not all students will need college to do what they want to do. College is important to educators. In fact, a lot of what is occurring in schools is based on preparing students to go to college. What educators relayed most often though was that college should not be considered the end goal. This comment summed up the dilemma nicely: "Prepare all students for college and let them go where they are best served." The goal in all instruction is "informed understanding." Interest and preparation were the two components most identified by educators as important elements for students.

High School. There will be life after high school. Educators appeared well aware of what a student needs heading to life after graduation. Past discussions helped educators with current students; however, multiple educators indicated that success was predicated on one's ability "to keep up with the times." Multiple individuals stressed the importance of "exploration" in high school to promote a "well-rounded education." It was clear from multiple responses that high school should be presented to students as a "beginning" and not treated as the outcome most necessary for student success. During high school, instruction should capture and develop the interest of the student with continuing education or training being a natural next step for all students completing high school.

Work with Students. Here, relationships were once again an important factor. Educators that developed strong, appropriate relationships in the classroom experienced

greater success in leading students to achieve goals beyond graduation. Many educators understood the students of today were going to be "running the country for the next generation." Teachers accepted the responsibility to ensure their students are "equipped to handle [the] responsibilities." Respondents also indicated these concepts as a vital part of developing a "well-rounded" education. "Knowing how to get from point A to point B," was one respondent's assessment of the contribution made for students by one's instruction.

Understand/Help Students. The teaching profession is predicated on one's ability and capacity to understand and help students. Educators listed "trust," "role modeling," "encouragement," "support," "believing in," and "preparation" as key elements related to understanding and helping students. One instructor stated, "Teachers go into this profession with a desire to make their students successful, and every student and every class dynamic is different. MOST teachers need the leeway to make decisions on how best to make their instruction pertinent and engaging to each particular student and class." Students need challenges and encouragement to "see the importance of the academic world." On one hand, teachers thrive in this kind of environment; on the other hand, the pressure can be overwhelming at times. Ultimately, educators want students to make "good choices." With these good choices, the educator believes most students "embrace life-long learning," and learn to trust other adults.

Triangulation of Data.

Following independent quantitative and qualitative analyses, data were subjected to a process of triangulation that merged both data sets for comparison or validation of the results. This approach allowed the researcher to converge quantitative and qualitative

data to better understand the research problem. Triangulation requires the researcher to check information that has been collected from different sources or methods for consistency of evidence across sources (Mertens, 2010). Using the designated research questions, what follows is the researcher's triangulation of the quantitative and qualitative data.

Research Question 1. *Do perceptions of college-ready, career-ready or career- and college-ready programs of study create barriers to student engagement and impede progress in career preparation during secondary matriculation?*

Quantitative analysis revealed that one hundred and fifteen individuals (46% of eligible respondents) responded to a portion of the survey. Of those who started the survey, ninety-three completed the full survey (81%). From the ninety-three completers, twelve (13%) scored highest on the college-ready mean, thirty-three (35%) scored highest on the career-ready mean, and forty-eight (52%) scored highest on the career- and college-ready mean. The table below (Table 8) compares measures of central tendency for each of the categories and a composite set of scores on measures of central tendency.

Table 8

Comparison of Central Tendency for Three Categories and Composite

	College-Ready	Career-Ready	Career- & College-Ready	Composite
MEAN	3.10	3.24	3.29	3.21
MEDIAN	3.06	3.25	3.30	3.23
MODE (Single)	2.97	3.60	3.33	3.60
STD. DEV.	0.32	0.27	0.27	0.30
Maximum	3.85	3.74	3.91	3.91
Minimum	2.09	2.56	2.50	2.09

Comments obtained through the use of open-ended survey questions reflected commonalities and similarities in responses. As reviewed with each specific question, the majority of responses closely aligned and did not indicate that one category stood out from the others. Although certain barriers identified by educators in the responses to the open-ended questions presented, these barriers appeared to be less aligned with one's orientation toward college-ready, career-ready, or career- and college-ready and were due more to intrinsic and extrinsic environmental factors. The master schedule, course selection procedures, and alignment of the curriculum were more detrimental to student engagement than the determined orientation of the instructor toward one of these categories.

Statistically, impediments to progress toward secondary matriculation failed to be linked with the philosophical orientation of the instructor. There appeared to be other factors relevant in the qualitative responses that more clearly pointed to barriers for student progress. Even with a determined orientation, the differences were statistically less significant and comments offered more defined observations of the educators' capacity to work from multiple orientations as the situation warranted.

Conclusions

Research Question 2

Do male and female respondents differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready, and career- and college-ready philosophy?

Quantitative statistical analysis did not yield any significant difference between male and female respondents. Similarities in common themes for all respondents would

support this finding using the qualitative analysis of the open-ended questions. Responses did not present a view of maleness or femaleness, which the researcher could identify. Thus, the responses would have to be viewed on the whole and would present a picture of educator views rather than gender specific views of the issues.

Consistency in thematic analysis portrayed a professional approach to responding to all parts of the survey. Responses captured allowed the researcher to identify professional idioms that were impediments to student progress and post-graduation advancement. It would appear from the proportions of males (44.35%) and females (55.65%) responding to the survey that both sexes share a common concern for students and the progress made during one's high school program of study. Having and completing a program of study is more vital than successfully navigating a particular program of study oriented similarly to the one the instructor supports.

Research Question 3

Do respondents with different years of experience in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?

Again, quantitative statistical analysis did not yield significant results when comparing years of experience and one's orientation toward a college-ready, career-ready, or career-and college-ready philosophy. The survey was responded to by a group of educators who covered the full range of years of experience. Interestingly, the smallest group of respondents was those completing one to five years of teaching (9.57%). The largest group was those completing twenty-plus years of service in education (33.91%).

Those completing six to ten years of service and sixteen to twenty years of service were groups of similar size (20% and 20.87%, respectively).

Qualitative analysis did not yield a pattern of responses that could be attributed to a designated level of service. Comments share commonalities across all respondents and no pattern of commenting could be attributed to a group for obvious reasons. Educators are confident with students due to personal experiences such as education, real-world experience, and connections with the community, rather than depending on the number of years in teaching for validity.

Research Question 4

Do respondents with different roles in education differ in the mean scores, which determine if an individual leans toward a college-ready, career-ready and career- and college-ready philosophy?

Again, given six categories for response there were strong numbers in five of the categories. Core academic instructors were the largest group (33.91%). Followed by high school career and technical education instructors and career and technology center or shared-time center staff (20%). Non-core academic instructors were the next largest group (15.65%), with building level administrators closing out the respondent groups (10.43%). No central office administration participated in the survey. Certification areas or roles in education did not measure significant in the quantitative statistical analysis.

There was considerable consistency in the qualitative analysis of responses as themes emerged that did not reflect a particular job responsibility as a mitigating factor in influence. The comments of respondents did reflect the area of service in education; however, strong statement of one's orientation was still not a factor in perceiving and

helping students. Commitment to student success was prevalent in all responses and detriments were limited to structural issues within the school building.

Research Question 5

How do individuals perceptions of their own college-ready, career-ready, or career- and college-ready philosophy influence what is presented to students related to secondary matriculation?

Here the quantitative data was significant; however, it was significant for all responses and with all variables. Each individual received a college-ready, career-ready, and career- and college-ready score in the statistical analysis. Each score was tested against the three variables of influence: preparation for post-graduation success, influence of the high school experience and inclination to recommend specific criteria for course selection. Regardless of whether one was perceived to be college-ready, career-ready, or career- and college-ready there was statistical significance in view of the three variables.

Responses to the open-ended questions corroborated this as educators stressed the influence and importance of these variables in the delivery of daily instruction and preparing students for the next stage of the journey to a career. These variables were common themes in how teachers perceive they influence students. There is ownership in ensuring students are prepared for post-graduation success, as well as a commitment to follow students beyond high school. In addition, the secondary experience is the foundation in which educators believe students build plans for the future. The process is uniquely valued, yet, critically evaluated by educators. Educators want both more and less in the high school experience; yet, they appear to have a genuine concern for how the students perceive the environment and processes in high school. Finally, the inclination to

recommend specific criteria for course selection is vital to the educators who responded to the survey. It is the merging of the past, present and the future - it both invigorates the educator and challenges them to a breaking point. The respondents genuinely cared about students and this was visible both statistically and in comments made.

Research Question 6

How do perceptions of college-ready, career-ready, or career- and college-ready philosophy create barriers to progress during secondary matriculation?

Statistical significance would enhance conclusions drawn from the quantitative and qualitative analysis of the data. When people are involved, however, seldom does it turn out that the answer is statistically clear. The present study shows that educators perceive there to be barriers to progress during secondary matriculation. It is not, however, clear that one's orientation toward a philosophy of college-ready, career-ready, or career- and college-ready gives the clearest answer to why these barriers exist.

The results indicate that educators do not have their heads stuck in the sand, promoting and supporting just one way of approaching secondary matriculation. Respondents displayed more balance across the three categories. The language of the responses lent support to the quantitative analysis of the data. What appeared to be obvious ended up presenting as more balanced and oriented toward the student. The learning community has much to offer students, parents, business and industry. Changes appear to be leading educators toward providing stronger opportunities for students. The results of the research offer hope. Tapping into the educators' commitment to student achievement and attaining career goals could further advance our instructional delivery systems.

Research Questions Summary

Quantitative analysis revealed that one hundred and fifteen individuals (46% of eligible respondents) responded to a portion of the survey. Of those who started the survey, ninety-three completed the full survey (81%). From the ninety-three completers, twelve (13%) scored highest on the college-ready mean, thirty-three (35%) scored highest on the career-ready mean, and forty-eight (52%) scored highest on the career- and college-ready mean.

Comments obtained through the use of open-ended survey questions reflected commonalities and similarities in responses. As reviewed with each specific question, the majority of responses closely aligned and did not indicate that one category stood out from the others. Although certain barriers identified by educators in the responses to the open-ended questions presented, these barriers appeared to be less aligned with one's orientation toward college-ready, career-ready, or career- and college-ready and were due more to intrinsic and extrinsic environmental factors. The master schedule, course selection procedures, and alignment of the curriculum were more detrimental to student engagement than the determined orientation of the instructor toward one of these categories.

Statistically, impediments to progress toward secondary matriculation failed to be linked with the philosophical orientation of the instructor. There appeared to be other factors relevant in the qualitative responses that more clearly pointed to barriers for student progress. Even with a determined orientation, the differences were statistically less significant and comments offered more defined observations of the educators' capacity to work from multiple orientations as the situation warranted.

Limitations of the Findings

There are limitations to all studies (Heppner & Heppner, 2004) as there are several limitations and assumptions in regard to this investigation; however, actions were taken to manage for these limitations to diminish the impact on the findings of this study. These limitations were acknowledged in an attempt to inform the reader and provide a framework for understanding the results of the investigation. The limitations for this study include the following:

1. There was a geographical limitation for the study as the participating schools were located strictly in the State of Missouri.
2. Schools participating in the study were limited to approximately 250 potential participants. Although sufficient for this research, generalizations may be limited due to factors related to the location and programs offered in the participating schools.
3. The findings of the survey instruments used are limited to the sample group as initial respondents to the developed questions. Although a pilot study was conducted and validity and reliability was assessed, there is a need for further testing of the instrument to determine if it can be generalized to a larger population for interpretation. The researcher was aware that broad application of the findings must be limited and could be biased.
4. The study was conducted within the timeframe of three calendar weeks near the end of the second semester of one academic year. Collection of data may have been influenced by parameters of school testing schedules, end of year testing timeframes, the approach of the end of the school year, and the number

of requests for participation in research studies received by participants in the current academic year.

5. In this study, participation was anonymous and limited to impersonal solicitation of respondents. Lack of personalization between researcher and participant may have hindered or reduced participation for individuals included in the population.
6. When using surveys, differences in how individuals respond and the biases of the researcher can interfere with the validity in the research.

Steps were taken to minimize the effects of these limitations through supervision and guidance from experienced researchers throughout this study. In choosing the sample population for the study, various sampling techniques were attempted to ensure a representative sample and increase the generalization of the results (Gay & Airasian, 2003, Mertens, 2010, Merriam, 2009). To ensure a high participation rate in the study, the researcher worked with building administrators to include all teaching staff during the administration of the surveys. Respondents were encouraged to participate by positive communication, as well as keeping the survey instrument short. Including open-ended questions allowed rich data to be collected. At the same time, participants were thanked for the effort made to participate in the research.

Implications for Practice

Since 1965, the roles of the federal, state and local government in education experienced recurring, sometimes cyclical, change. The introduction of federal funds into education with the *Elementary and Secondary Education Act* (ESEA) funding in the late 1960s brought immediate attention to the needs of marginalized and disadvantaged

students (Vinovskis, 2009) and later provided resources for funding career-ready training programs in secondary education (Scott & Sarkees-Wircenski, 2008); however, little changed as perceptions of career-ready preparation continued to reflect a second-rate option to college-ready preparation.

Administrators, counselors and instructors, according to Scott and Sarkees-Wircenski (2008), have long supported career-ready preparation for those students who appeared to be unsuccessful in college preparatory courses. The rapid growth of vocational training centers in American schools (Scott & Sarkees-Wircenski, 2008) and today's increased focus on academic rigor (DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009) challenge local school districts to once again reevaluate individual and corporate perceptions of career-ready educational programs.

Cyclical funding support, as well as minimal collaboration by federal, state and local education agencies, challenge the capacity of secondary education to fill the needs of business and industry in producing graduates who are both career- and college-ready upon graduation from high school. The introduction of program initiatives, like the addition of Science, Technology, Mathematics and Engineering programs, has boosted the awareness of career-ready needs for students in the context of secondary matriculation. In addition, professional development geared toward the establishment of critical thinking, problem solving, group-work, collaborative and cooperative education, and soft-skills in the secondary education environment has advanced evidence of a reasonably balanced approach to developing career- and college-ready students.

Current trends in educational reform for the 21st Century improved the measured perceptions of educators; at least in the setting where this research was conducted.

Teachers, and by proxy the students taught, within the environments studied in this research embrace relevant, real world, contextualized learning modalities, which in the past have been exclusive to vocational education. The present study examined teacher perceptions of college-ready, career-ready and career- and college- ready education for a variety of internal education stakeholders and found them to be an insignificant factor in determining barriers to helping and guiding students. In addition, the research increased awareness of teacher-to-student relationships and how these impact education stakeholder promotion of career-ready and college-ready students in all programs of study. Teachers were shown to have a strong commitment to reduce barriers to student enrollment in, and completion of, all programs of study available in secondary education facilities.

Effort must be applied to keep the measured balance trending forward. Expanding educator capacity to positively effect student engagement and achievement in programs of study require inclusion of career and college goals. *College for all* must be replaced with a concentrated focus on individualized achievement in education and training outcomes based on expressed student interests. The educators in this research stand for student success based on student directed programs of study developed from student interests. Research should further pursue stronger guidance and direction to the initiatives currently employed. Best practices need to be promoted at all school sites so these research outcomes are available to all students in every school.

Three implications for practice developed as the data was analyzed. Several trends emerged from the quantitative and qualitative data obtained in the survey. For the balance of this section the researcher will offer suggestions for continuing to increase the impact on students in the following areas: the advising relationship, the teacher-to-student

relationship, and overcoming structural barriers impeding educator's capacity to guide and influence students.

The advisory relationship (teacher-to-student, in a small group mostly for the purposes of course selection and enrollment) has recently become a vital part of the process schools use to guide and enroll students with parent(s)/guardian(s) approval. Educators expressed both positive and negative responses to the advising relationship employed in the school where the educator worked. Although the attempt is made to match educators and students by area of certification or interest, it is clear that some educators sense a lack of ability and capacity to be effective in giving advice.

Lack of pre-professional preparation appears to be a strong factor in the negative side of the teacher's perceptions of the advising relationship. Educators have confidence in what they know, yet, repeatedly instructors indicated the advising relationship had evolved to something outside of what the individual was comfortable providing to students. Training is often short and without investment in the skills needed to navigate the wide variety of student interests.

The importance of advising students must become part of teacher pre-professional preparation programs. New teachers to the profession, early professionals in teaching and even a few seasoned teachers need structured theory and practice for the advising relationship with students. Inclusion in pre-professional teacher preparation programs and within the structured professional development process of highly qualified teachers provides the opportunity to ensure every student has a capable advisor in secondary education.

It is recommended that pre-professional teachers be trained through a class with a practical element included where advisement is practiced. Evaluation should be conducted and feedback provided to ensure that appropriate advisement skills are developed while the candidate is still seeking certification for the teaching profession. Upon being hired, new teachers to the profession, and designated teachers without certifiable experience in advising, should participate in a program of mentoring to advising. During the first semester of teaching in a district, new professionals should be assigned to a seasoned advisor of students who is certified as qualified to deliver these services to students. The new professional should watch the certified professional deliver services for one semester and spend time reviewing advisement and how it is being structured to aid the student. During the second semester, the educator should be given supervised opportunity to deliver advisement to students under the direct counsel of the seasoned, certified instructor. Finally, the new professional should be required to show cause for being certified as an advisor to students. Upon review by a university, college, Board, or State Department designee, the new professional should be certified as a student advisor.

Periodic monitoring and supervision of advisement practices should be conducted within the school building and professional development opportunities to ensure skills are kept up-to-date and applicable to current trends and practices. Advising relationships of teacher-to-student should not be taken for granted. Educators reported the importance of these relationships implying that the influence yielded to students must be crafted and not assumed.

A second implication, extending from the first implication, was the need for stronger teacher-to-student relationships. The data indicated educators hold individual relationship in high regard when engaging in career advice, course selection and enrollment, and when determining a student's preparation to pursue post-secondary training or education. Many educators indicated the teacher-to-student relationship is the key to successful mentoring of students to achieve the stated career and college goals.

In other words, the teacher-to-student relationship is central to the effectiveness of the advice provided to students. Without the relationship, educators clearly see that advice is not heeded, poorly received, and/or circumvented by parental or employer influence. The teacher-to-student relationship overcomes curriculum issues, structural barriers and a general lack of confidence, according to the qualitative data. The qualitative data also implicated the following relationships as key to the path a student takes in setting and achieving career and college goals: a mentoring teacher, departmental curriculum advocate, parent(s)/guardian(s), community, business and industry leaders.

The implication for practice runs parallel to the prescribed plan for improving the advising practice and relationship detailed in the first implication. The second implication expands the first in that educators are the central figures in the establishment of teacher-to-student relationships. The qualitative data indicate the necessity to promote and expand the opportunities educators have for sharing with students. In addition, stronger development of curriculum, course sequencing and pathways to careers and college necessitate the inclusion of teachers in the teacher induction process. Educators must see the present and future implications of the courses and instruction they deliver.

Finally, the data implies structural barriers to successful navigation of students related to advising, course selection, and choosing of a career or college goal. The school's master schedule is one example of a perceived barrier to student success. In the spirit of *fitting a square peg in a round hole,* educators spoke of the important role teachers have in establishing departmental and building-level curriculum paths which allow students to plan for effective career and college goals. Another element discussed was course sequencing. Educators indicated the need to ensure that the goals of the students drive the sequencing, not the sequencing driving the student goals. There is evidence in the qualitative data that the structure of today's schools does not meet the needs of students and educators are aware of this deficiency. Changing the structure of school is a difficult task at best and next to impossible according to some of the respondents in this research. Some educators touted the importance of shifting to individualized curriculum matriculation maps for high school graduation plans.

In practice, schools must begin to listen to students, parent(s)/guardian(s), business and industry leaders and teachers regarding out-of-date structures and practices in the school environment. The *Industrial Revolution*-type environments characterizing secondary education at the present time are outdated and necessitate revolutionary change begins immediately. By drawing stakeholder groups together toward a common goal of increasing the effectiveness of school environments, ineffective traditions can be dismantled and innovative change can begin to open up new possibilities to students leading them toward greater achievement of career and college goals. Students deserve this and future economic and social development requires our investment in these types of improvements.

Recommendations for Future Research

Philosophical change can be described as "rarely easy, always hard to justify, and almost impossible to sustain" (Hargreaves & Fink, 2003, p.693). With that in mind, additional research and investigation into developing comprehensive programming centered on improving student preparation for successful accomplishment of career and college oriented goals is obligatory. The findings of this study indicated advancement of educator perceptions related to career- and college-ready students requires further research. Replication of this study, applied to different school settings or larger teacher populations, could provide insights of commonalities across improvement efforts thereby increasing the capacity to sustain change.

There were two specific recommendations for future research indicated by the data. First, there is a need to explore the differences between administration and educators. The present study had eight (8) administrators (all building level administrators and no central office administration) as compared to eighty-five (85) instructors. Data indicated instructors' strongest philosophical inclination was career-ready, while the administrator's strongest philosophical inclination was college-ready. Resulting questions would include: What role does leadership play in promotion and delivery of career and college ready programs of study? Do leaders impact the ability of instructors to deliver career and college ready programming and advisement?

Future research should focus on building level, district level and state level administrator philosophical inclination compared to instructor philosophical inclination for all levels of education settings. In addition, research should look for input on how administrators and instructors work together to deliver career and college ready programs

of study. Finally, research should seek data on how local participants compare to regional and state leaders when viewing the influence of an individual's philosophical inclination on what is shared with students.

Another obvious recommendation for future research from the present study included the need to do statistical analysis inclusive of populations representing urban, suburban and rural settings. The present study was fairly representative of the suburban and rural populations; however, the urban element was missing. In addition, the present study was fortunate to include schools with strong access to career and technical education programs having strong career ready programming and offerings. Future studies would need to include high schools and career centers without strong programming connections to truly reflect the overall population. Finally, along the same line, future research should look at multistate data collection to make generalizations that are truly applicable to the overall population.

There are other questions for research to consider. For instance, do teacher preparation programs and professional development programs offer substantial training in addressing career- and college-ready goals of students? If so, does this training translate through the administrative hierarchy and into the community such that systemic success sustains change quickly and at deeper levels? These questions resulted from the combination of quantitative and qualitative data in this study.

In addition, research exploring questions related to how school organizations identify and carry out the practices of a career- and college- ready approach fostering sustainable student and school-wide improvement for meaningful change should result from a school-wide commitment to enhance understanding and development of career-

and college-ready programs of study. Issues to explore would include, how do schools apply sustainable practices to produce desired outcomes? What factors influence the selection of these practices? Furthermore, how do these practices impact and support the relationships of teachers, students, parents/guardians, business and community leaders? What is the impact of these practices on sustaining successful school improvement?

Additional investigation on how change occurs through implementation of a model expanding institutional capacity while improving achievement and promoting continuous regeneration within the school organization could add to the understanding of what constitutes successful change. Questions future research should address include: (a) inquiring how schools can successfully promote career- and college-ready preparation; (b) discerning how schools can engage as change agents for adaptive philosophies of career and college preparation of all students; and (c) what strategies are required to sustain change and promote on-going regeneration. These questions and issues of successful school adaptation or improvement reach beyond the focus of this study but should be considered since educational organizations have not been particularly prudent in school improvement or change, especially when organizing the capacity for sustainable change (Stone & Lewis, 2012).

Concluding Overview

The purpose of this study was to examine how teacher perceptions of college-ready, career-ready and career- and college-ready inclinations impact student engagement and completion of secondary programs of study. The results of the research did not support this hypothesis; however, it revealed that teacher-student relationships bridge the gap between the teacher's philosophical tendency and the need for the student to be

guided into a college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of strong academics and advanced training/experience) program of study. The intent of the examination was to provide insights into how an educator can influence a student unintentionally through bias toward the individual's personal philosophical approach; however, the results of the research indicate that teacher-student relationships are more important than the orientation of the educator when providing help to students. Evidence indicated that teachers are in tune with the components of college-ready, career-ready and career- and college-ready needs of students. In addition, evidence indicated respondents supported and promoted all three philosophical approaches with balanced and sustainable vigor.

A significant relationship was found between college-ready, career-ready and career- and college-ready inclinations and three variables: preparation for post-graduation success, the influence of the high school experience and one's inclination to recommend specific criteria for course selection. Further analysis of qualitative data revealed educator commitment to students and the success students have in the secondary setting through post-high school graduation. This supports the conclusions of previous research (Stone & Lewis, 2012); however, it did not provide enough data to infer why and how it is present in this study. Additionally, this investigation revealed that school leadership both detracts and promotes educator engagement with students in relation to college and career preparation. Schools successful in promoting college and career preparation implemented strategies and processes that enhanced student capacity to reach career and college goals through empowering communication, purposeful planning, skillful decision-making, and through a culture of professional growth oriented towards the building of student

expression and achievement of personal career and college oriented goals. Supporting the finding of this investigation was agreement among researchers that rapid growth of vocational training centers in American schools (Scott & Sarkees-Wircenski, 2008) and today's increased focus on academic rigor (DeBray, 2006; Herian, 2011; Rebell & Wolff, 2009; Vinovskis, 2009), expanded career- and college-ready programs of study with cyclical support from government and little collaboration of mutual effort at the federal, state and local levels (Stone & Lewis, 2012).

The research shows that educators do not have their heads buried in the sand while they promote and support a single philosophy of secondary matriculation. Respondents portrayed more balance across the three orientations chosen for this research. The language of the responses lent support to the quantitative analysis of the data. What previously appeared to be obvious ended up presenting as balanced and oriented toward the student. The learning community has something to offer students, parents, business and industry. Changes appear to be leading educators toward providing strong, balanced opportunities for students. The results of the research offer hope. Tapping into the educators' commitment to student achievement and attaining career goals could further advance the instructional delivery systems of American schools, as well as improve student attainment of career and college goals.

REFERENCES

Abrams, L. C., Cross, R., Lesser, E. & Levin, D. Z. (2003). Nurturing interpersonal trust in knowledge-sharing networks. *The Academy of Management Executive*, *17*(4), 64-77.

Aud, S., Hussar, W., Johnson, F., Kena, G., Roth, E., Manning, E., Wang, X., & Zhang, J. (2012). *The Condition of Education 2012* (NCES 2012-045). U.S. Department of Education, National Center for Education Statistics. Washington, DC. Retrieved [date] from http://nces.ed.gov/pubsearch.

Ayers, W., Quinn, T., & Stovall, D. (2009). *Handbook of social Justice in education*. New York, NY: Routledge.

Bakker, M., Leenders, R. T. A. J., Gabbay, S. M., Kratzer, J. & Van Engelen, J. M. L. (2006). Is trust really social capital? Knowledge sharing in product development projects. The Learning Organization, 13(6), 594-605.

Barnett, A. (1997). Towards a Stakeholder Democracy. In G. Kelly, D. Kelly, & A. Gamble (Eds.), *Stakeholder Capitalism* (pp. 82-98). London: MacMillan Press.

Bass, B. M. & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: SAGE.

Beck, L. G. (1994). *Reclaiming educational administration as a caring profession*. New York: Teachers College Press, Columbia University.

Beck L. G. & Murphy, J. (1996). *The four imperatives of a successful school*. Thousand Oaks, CA: Corwin Press.

Beck, L. G. & Murphy, J. (1997). *Ethics in educational leadership programs: Emerging models*. Columbia, MO: University Council for Educational Administration.

Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.

Bock, G. W., & Kim, Y. G. (2002). Breaking the myths of rewards: An exploratory study of attitudes about knowledge sharing. *Information Resources Management Journal*, *15*(2), 14-21.

Bock, G. W., Zmud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the role of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, *29*(1), 87-111.

Bogotch, L. E. (2002). Educational leadership and social justice: Practice and theory. *Journal of School Leadership*, *12*(1), 138-156.

Bolman, L. G. & Deal, T. E. (2008). *Reframing organizations: Artistry, choice and leadership*. San Francisco, CA: Jossey-Bass.

Bordia, P., Irmer, B. E., & Abusah, D. (2006). Differences in sharing knowledge interpersonally and via databases: The role of evaluation apprehension and perceived benefits. *European Journal of Work and Organizational Psychology*, *15*(3), 262-280.

Bowles, S. & Gintis, H. (1976). *Schooling in capitalist America*. New York, NY: Basic Books.

Boyatzis, R. & McKee, A. (2005). *Resonant leadership: Renewing yourself and connecting through mindfulness, hope, and compassion*. Boston, MA: Harvard Business School Press.

Brand, B. (2003). *Rigor and relevance: A new vision for career and technical education. (A white paper.)* Retrieved from American Youth Policy Forum: http://www.aypf.org/publications/aypf_rigor_004v.3.pdf

Bruffee, K. A. (1999). *Collaborative learning: Higher education, interdependence, and the authority of knowledge*. Baltimore, MD: Johns Hopkins University Press.

Butler, J. K., Jr. (1999). Trust expectations, information sharing, climate of trust, and negotiation effectiveness and efficiency. *Group & Organization Management*, *24*(2), 217-238.

Byrk, A. S. & Driscoll, M. E. (1988). *The high school as community: Contextual influences and consequences for students and teachers*. Wisconsin Center for Education Research, National Center on Effective Secondary Schools, Madison WI.

Cabrera, E. F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *International Journal of Human Resource Management*, *16*, 720-735.

Cabrera, A., Collins, W. C., & Salgado, J. F. (2006). Determinants of individual engagement in knowledge sharing. *International Journal of Human Resource Management*, *17*(2), 245-264.

Castellano, M., Stringfield, S., & Stone III, J.R. (2003). Secondary career and technical education and comprehensive school reform: Implications for research and practice. *Review of Educational Research*, 73, 231-272. doi: 10.3102/00346543073002231

A joint publication of the Center for Occupational Research and Development (CORD) and the National Association of State Directors of Career and Technical Education Consortium (NASDCTEc), 2012. *The Career Pathway Effect: Linking education and economic prosperity*. Waco, TX: CORD Publications.

Chiu, C. M., Hsu, M. H., Wang, E., & Tg. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decisions Support Systems*, *42*(3), 1872-1888.

Chowdhury, S. (2005). The role of affect- and cognition-based trust in complex knowledge sharing. *Journal of Managerial Issues*, *17*(3), 310-326.

Coleman, J. S. (1990). *Equality and achievement in education*. San Francisco, CA: Westview.

Collins, J. C., & Porras, J. I. (1994). *Built to last: Successful habits of visionary companies*. New York, NY: Harper Collins.

Connelly, C. E., & Kelloway, E. K. (2003). Predictors of employees' perceptions of knowledge sharing culture. *Leadership & Organizational Development Journal*, *24*(5/6), 294-301.

Constant, D., Kiesler, S., & Sproull, L. (1994). What's mine is ours, or is it? A study of attitudes about information sharing. *Information Systems Research*, *5*(4), 400-421.

Cooper, B. S. & Randall, E. V. (1998). *Accuracy or advocacy: The politics of research in education*. Thousand Oaks, CA: Corwin Press.

Covey, S. R. (1990). *Principle-centered leadership*. New York, NY: Free Press.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Los Angeles, CA: SAGE.

Creswell, J. W. & Clark, V. P. (2007). *Designing and conducting mixed methods research.* Thousand Oaks, CA: Sage.

Cross, R., & Cummings, J. N. (2004). Tie and network correlates of individual performance in knowledge-intensive work. *Academy of Management Journal*, *47*(6), 928-937.

Crow, G. M. & Slater, R. O. (1996). *Educating democracy: The role of systemic leadership*. National Policy Board for Educational Administration, Fairfax, VA.

Cummings, J. N. (2004). Work groups, structural diversity, and knowledge sharing in a global organization. *Management Science*, *50*(3), 352-364.

Davenport, T.H., & Prusak, L. (1998). Working knowledge: How organizations manage what they know. Boston, MA: Harvard Business School Press.

DeBray, E. H. (2006). *Politics, ideology and education: Federal policy during the Clinton and Bush administrations*. New York, NY: Teachers College Press.

DeLuca, S., Plank, S., & Estacion, A. (2006). *Does career and technical education affect college enrollment?* Retrieved from: National Research Center for Career and Technical Education: http://www.nccte.com.

Dentley, M.E. (2003). Principled, pragmatic, and purposive leadership: Reimagining educational leadership through prophetic spirituality. *Journal of School Leadership*, *13*(2), 181-198.

Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis for distributive justice? *Journal of Social Issues*, 31(3), 137-149.

Deutsch, M. (1985). *Distributive justice*. New Haven, CT: Yale University Press.

de Vries, R. E., van den Hooff, B., & de Ridder, J. A. (2006). Explaining knowledge sharing: The role of team communication styles, job satisfaction, and performance beliefs. *Communication Research*, *33*(2), 115-135.

Dewey, J. (1916). *Democracy and education*. New York, NY: Free Press.

Dewey, J. (1922). *Human nature and conduct*. New York, NY: Random House.

Dill, W. R. (1975). Public participation in corporate planning: strategic management in a kibitzer's world. *Long Range Planning*, 57-63.

Dillard, C. B. (1995). Leading with her life: An African-American feminist (re)interpretation of leadership for an urban high school principal. *Educational Administration Quarterly*, *31*, 539-563.

Donaldson, T., & Dunfee, T. W. (1999). *Ties that bind*. Boston, MA: Harvard Business School Press.

Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review*, 20(1), 65-91.

Dweck, C. S. (2008). *Mindset: The new psychology of success*. New York, NY: Ballantine.

Ehrensal, P. A. L., & First, P. F. (2008). Understanding school board politics: Balancing public voice and professional power. In B. S. Cooper, J. G. Cibulka, & L. D. Fusarelli (Eds.), *Handbook of education politics and policy* (pp. 73-88). New York, NY: Routledge.

Elster, J. (1992). *Local justice*. New York, NY: Russell Sage Foundation.

Emerson, R. M. (1981). Social exchange theory. In M. Rosenberg & R. H. Turner (Eds.), *Social psychology: Sociological perspective*. New York, NY: Basic Books, Inc.

Emerson, R.M., Fretz, R.I., & Shaw, L.L. (2011). *Writing ethnographic fieldnotes* (2nd ed.). Chicago, IL: The University of Chicago Press.

Enomoto, E. K. (1997). Negotiating the ethics of care and justice. *Education Administration Quarterly*, *33*, 351-370.

Fayol, H. (2011). General principles of management (C. Storrs, Trans.). In J. M. Schafritz, J. S. Ott, & Y. S. Jang (Eds.), *Classics of organization theory* (pp. 52-64). Boston, MA: Wadsworth. (Reprinted from *General and industrial management*, pp. 19-42, 1949, London: Pitman)

Ferrin, D. L., & Dirks, K. T. (2003). The use of rewards to increase and decrease trust: Mediating processes and differential effects. *Organization Science*, *14*(1), 18-31.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Los Angeles, CA: SAGE.

Fink, A. (2009). *How to conduct surveys: A step-by-step guide* (4th ed.). Los Angeles, CA: SAGE.

Ford, D. P., & Chan, Y. E. (2003). Knowledge sharing in a multicultural-setting: A case study. *Knowledge Management Research and Practice*, *1*(1), 11-27.

Fowler, F. C. (2009). *Policy studies for educational leaders: An introduction* (3rd ed.). Boston, MA: Allyn & Bacon/Pearson.

Freeman, R. E. (1988). A stakeholder theory of the modern corporation. *Perspectives in Business Ethics Sie 3E*, 38-48.

Freeman, R. E. (1994). The politics of stakeholder theory: Some future directions. *Business Ethics Quarterly*, *4*(4), 409-422.

Freeman, R. E., & Reed, D. L. (1983). Stockholders and stakeholders: A new perspective on corporate governance. *California Management Review*, *25*(3), 88-106.

French, Jr., J. R. P. & Raven, B. (2011). The bases of social power. In J. M. Schafritz, J. S. Ott, & Y. S. Jang (Eds.), *Classics of organization theory* (pp. 298-306). Boston, MA: Wadsworth. (Reprinted from *Studies in social power*, pp. 150-167, 1959, Ann Arbor, MI: Institute for Social Research at University of Michigan)

Friedman, A. L. & Miles, S. (2006). *Stakeholders: Theory and practice*. New York: Oxford University Press.

Furman, G. C. (2002). *School as community: From promise to practice*. Albany, NY: SUNY Press.

Furman, G. C. (2004). The ethic of community. *Journal of Education Administration*, *42*(2), 215-235.

Furman, G. C., & Staratt, R. J. (2002). Leadership for democratic community in schools. In J. Murphy (Ed.), *The educational leadership challenge: Redefining leadership for the 21st century. 101st Yearbook of the National Society for the Study of Education, National Society for the Study of Education*, Chicago, IL, pp. 105-133.

Gay, L. R., & Airasian, P. (2003). *Educational Research: Competencies for analysis and applications* (7th ed.). Columbus, OH: Merrill Prentice Hall.

Gioia, D. A. (1999). Practicability, paradigms, and problems in stakeholder theorizing. *Academy of Management Review*, 24(2), 228-232.

Giroux, H. A. (1991). *Postmodernism, feminism, and cultural politics: Redrawing educational boundaries*. Albany, NY: SUNY Press.

Goldring, E. & Greenfield, W. (2002). Understanding the evolving concept of leadership in education: roles, expectations, and dilemmas. In J. Murphy (Ed.), *The Educational leadership challenge: Redefining leadership for the 21st century. 101st Yearbook of the National Society for the Study of Education* (pp. 1-19). Chicago, IL: National Society for the Study of Education.

Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence*. Boston, MA: Harvard Business School Press.

Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, *78*, 1360-1380.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal, 17*, 109-122.

Gray, K. (2004). Is high school career and technical education obsolete? *Phi Delta Kappan*, 86(2), 128-134.

Green, J. M. (1999). *Deep democracy: Community, diversity, and transformation*. Lanham, MD: Rowan & Littlefield.

Gruenwald, D. (2003). The best of both worlds: A critical pedagogy of place. *Educational Researcher*, 32(4), 3-12.

Gulick, L. (2011). Notes on the theory of organization. In J. M. Schafritz, J. S. Ott, & Y. S. Jang (Eds.), *Classics of organization theory* (pp. 83-91). Boston, MA: Wadsworth. (Reprinted from *Papers on the science of administration*, pp. 3-13, by L. Gulick & L. Urwick, Eds., 1937, Institute of Public Administration)

Gupta, A. K. & Govindarjan, V. (2000). Knowledge management's social dimension: Lessons from Nucor Steel. *Sloan Management Review*, *42*(1), 71-80.

Gutmann, A. (1987). *Democratic education*. Princeton, NJ: Princeton University Press.

Hansen, M. T. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. Administrative Science Quarterly, 44(1), 82-111.

Hargreaves, A., & Fink, D. (2003). Sustaining leadership. *Phi Delta Kappan, 84*(9), 693-700.

Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.

Hendry, J. (2001a). Missing the target: Normative stakeholder theory and the corporate governance debate. *Business Ethics Quarterly*, *11*(1), 159-176.

Hendry, J. (2001b). Economic contracts versus social relationships as a foundation for normative stakeholder theory. *Business Ethics: A European Review*, *10*(3), 223-232.

Herian, M. N. (2011). *Governing the states and the nation: The intergovernmental policy and influence of the National Governor's Association*. Amherst, NY: Cambria Press.

Hew, K. F., & Hara, N. (2007). Knowledge sharing in on-line environments: A qualitative case study. *Journal of the American Society for Information Science and Technology*, *58*(14), 2310-2324.

Hoy, W. K. (1994). *The UCEA Document Base*. New York, NY: McGraw-Hill.

Hutten, W. (1995). *The state we're in*. London: Jonathan Cape.

Hwang, Y., & Kim, D. (2007). Understanding affective commitment, collectivist culture, and social influence in relation to knowledge sharing in technology mediated learning. *IEEE Transactions on Professional Communication*, *50*(3), 232-248.

Interstate School Leaders Licensure Consortium. (1996). *Standards for school leaders*. Washington, DC: Council of Chief State School Officers.

Isaacs, W. (1999). *Dialogue and the art of thinking together*. New York, NY: Currency.

Iverson, S. V. (2012). Constructing outsiders: The discursive framing of access in university diversity policies. *The Review of Higher Education*, *35*(2), 149-177. doi: 10.1353/rhe.2012.0013

Jackson, S. E., Chuang, C. H., Harden, E. E., Jiang, Y., & Joseph, J. M. (2006). Toward developing human resource management systems for knowledge-intensive teamwork. In J. M. Joseph (Ed.), *Research in personnel and human resources management* (Vol. 25, pp. 27-70). Amsterdam: JAI.

Jarvenpaa, S. L., & Staples, D. S. (2000). The use of collaborative electronic media for information sharing: An exploratory study of determinants. *The Journal of Strategic Information Systems*, *9*(2-3), 129-154.

Jensen, M. C. (2000). Value maximization and the corporate objective function. In M. Beer & N. Nohria, *Breaking the code of change* (pp. 37-58). Boston, MA: Harvard Business School Press. (Reprinted (2002) as: Value maximization, stakeholder theory, and the corporate objective function. *Business Ethics Quarterly*, 12(2), 235-256.)

Jones, M. C. (2005). Tacit knowledge sharing during ERP implementation: A multi-site case study. *Information Resources Management Journal*, *18*(2), 1-23.

Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review*, 20(2), 404-437.

Jones, T. M., & Wicks, A. C. (1999a). Convergent Stakeholder theory. *Academy of Management Review*, 24(2), 206-221.

Jones, T. M., & Wicks, A. C. (1999b). Letter to *AMR* Regarding 'Convergent stakeholder theory.' *Academy of Management Review*, 24(2), 621-623.

Kankanhalli, A., Tan, B. C. Y., & Wei, K. K. (2005). Contributing knowledge to electronic knowledge repositories: An empirical investigation. *MIS Quarterly*, *29*(1), 113-143.

Kanter, R. M. (2011). Power failure in management circuits. In J. M. Schafritz, J. S. Ott, & Y. S. Jang (Eds.), *Classics of organization theory* (pp. 320-329). Boston, MA: Wadsworth. (Reprinted from *Harvard Business Review*, 1979)

Kasten, K. L. & Ashbaugh, C. R. (1991). The place of values in superintendents' work. *Journal of Education Administration*, *29*(3), 54-66.

Kazis, R. (2005). *Remaking career and technical education for the 21st century: What role for high school programs?* Retrieved from: The Aspen Institute: http://www.aspeninstitute.org/ecs

Kellerman, B. (2004). *Bad leadership: What it is, how it happens, why it matters*. Boston, MA: Harvard Business School Press.

Kelly, G. E. and Bredeson, P. V. (1991). Measures of meaning in a public and in a parochial school: Principals as symbol managers. *Journal of Educational Administration*, *29*(3), 6-22.

Keyes, M. W., Hanley-Maxwell, C., & Capper, C. A. (1999). 'Spirituality? It's the core of my leadership': Empowering leadership in an inclusive elementary school. *Educational Administration Quarterly*, *35*, 203-237.

Kidder, R. M. (1995). *How good people make tough choices: Resolving the dilemmas of ethical living*. New York, NY: Fireside.

Kim, S., & Lee, H. (2006). The impact of organizational context and information technology on employee knowledge-sharing capabilities. *Public Administration Review*, *66*(3), 370-385.

Knapp, C. (1992). *Lasting lessons: A teacher's guide to reflecting on experience*. Charleston, VA: ERIC Press.

Kruger, R. A., & Casey, M. A. (2009). *Focus groups: A practical guide for applied research* (4th ed.). Los Angeles, CA: SAGE.

Kubo, I., Saka, A., & Pam, S. L. (2001). Behind the scenes of knowledge sharing in a Japanese bank. *Human Resources Development International*, *4*(4), 465-485.

Kulkarni, U. R., Ravindran, S., & Freeze, R. (2006). A knowledge management success model: Theoretical development and empirical validation. *Journal of Management Information Systems*, 23(3), 309-347.

Kwok, S. H., & Gao, S. (2005). Attitude towards knowledge sharing behavior. *The Journal of Computer Information Systems*, *46*(2), 45-51.

Lam, A. (1996). Engineers, management and work organization: A comparative analysis of engineers' work roles in British and Japanese electronics firms. *The Journal of Management Studies*, *33*(2), 183-212.

Larson, C. & Ovando, C. (2001). *The color of bureaucracy: The politics of equity in multicultural school communities*. Belmont, CA: Wadsworth.

Lee, J. H., Kim, Y. G., & Kim, M. Y. (2006). Effects of managerial drivers and climate maturity on knowledge-management performance: Empirical validation. *Information Resources Management Journal*, *19*(3), 48-60.

Leithwood, K. & Duke, D. L. (1998). Mapping the conceptual terrain of leadership: A critical point of departure for cross-cultural studies. *Peabody Journal of Education*, *73*(2), 31-50.

Leventhal, G. S. (1976). The distribution of rewards and resources in groups and organizations. In L. Berkowitz & E. Walster (Eds.), Advances in experimental social psychology, vol. 9 (pp. 91-131). New York, NY: Academic Press.

Liebowitz, J. (2003). A knowledge management strategy for the Jason organization: A case study. *Journal of Computer Information Systems*, *44*(2), 1-5.

Liebowitz, J., & Megbolugbe, I. (2003). A set of frameworks to aid the project manager in conceptualizing and implementing knowledge management initiatives. International *Journal of Project Management*, *21*(3), 189-198.

Lin, C. P. (2007a). To share or not to share: Modeling knowledge sharing using exchange ideology as a moderator. *Personnel Review*, *36*(3), 457-475.

Lin, C. P. (2007b). To share or not to share: Modeling tacit knowledge sharing, its mediators and antecedents. *Journal of Business Ethics*, *70*(4), 411-428.

Lin, H. F. (2007c). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *Journal of Information Science*, *33*(2), 135-149.

Lin, H. F. (2007d). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower*, *28*(3/4), 315-332.

Lin, H. F., & Lee, G. G. (2004). Perceptions of senior managers toward knowledge-sharing behaviour. *Management Decision*, *42*(1/2), 108-125.

Lin, H. F., & Lee, G. G. (2006). Effects of socio-technical factors on organizational intention to encourage knowledge sharing. *Management Decision*, *42*(1/2), 108-125.

Louis, K. S. & Kruse, S. D. (1995). *Professionalism and community: Perspectives on reforming urban schools*. Thousand Oaks, CA: SAGE.

Lynch, R. L. (2000). New directions for high school career and technical education in the 21st century (Information Series No. 384). Retrieved from ERIC Clearinghouse on Adult, Career and Vocational Education: http://www.ericacve.org/fulltext.asp

Macedo, D. (1995). Power and education: Who decides the forms schools have taken, and who should decide? In J. L. Kincheloe & S. R. Steinberg (Eds.), *Thirteen questions* (2nd ed.). New York, NY: Peter Lang.

Marcoux, A. M. (2000). Balancing act. In J. R. DesJardins & J. J. McCall (Eds.), *Contemporary issues in business ethics* (4th ed.), (pp. 92-100), New York, NY: Wadsworth.Marquardt, M. J. (2011). *Building the learning organization: Achieving strategic advantage through a commitment to learning* (3rd ed.). Boston, MA: Nicholas Brealey.

Marshall, C., Patterson, J. A., Rogers, D. L., & Steele, J. R. (1996). Caring as career: An alternative perspective for educational administration. *Educational Administration Quarterly*, *32*, 271-294.

Maxcy, S. J. (1995). *Democracy, chaos, and the new school order*. Thousand Oaks, CA: Corwin Press.

McNeil, L. M. (2000). *Contradictions of school reform: Educational costs of standardized testing*. New York, NY: Routledge.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.

Merriam, S. B. (2009). *Qualitative Research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

Mertens, D. M. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (3rd ed.). Los Angeles, CA: SAGE.

Minaeva, D. (2007). Knowledge transfer in multinational corporations. *Management International Review*, *47*(4), 557-593.

Mintzberg, H. (2011). The power game and the players. In J. M. Schafritz, J. S. Ott, & Y. S. Jang (Eds.), *Classics of organization theory* (pp. 330-337). Boston, MA: Wadsworth. (Reprinted from *Power in and around organizations*, 1983, Englewood Cliffs, NJ: Prentice-Hall)

Mooradian, T., Renzl, B., & Matzler, K. (2006). Who trusts? Personality, trust and knowledge sharing. *Management Learning*, *37*(4), 523-540.

Murphy, J. (1999). *The quest for a center: Notes on the state of the profession of educational leadership*. University Council for Educational Administration, Columbia, MO.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital and the organizational advantage. *Academy of Management Review*, *23*(2), 242-266.

National Commission on Excellence in Education (1983). *A nation at risk: The imperative for educational reform*. Retrieved from: http://datacenter.spps.org/uploads/SOTW_A_Nation_at_Risk_1983.pdf

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, *5*(1), 14-37).

Northouse, P. G. (2010). *Leadership: Theory and practice* (5th ed.). Los Angeles, CA: Sage.

Orts, E. W. & Strudler, A. (2002). The ethical and environmental limits of stakeholder theory. *Business Ethics Quarterly*, *12*(2), 215-234.

Perry-Smith, J. E. (2006). Social yet creative: The role of social relationships in facilitating individual creativity. *Academy of Management Journal*, *49*(1), 85-101.

Peters, T. J., & Waterman, R. H. (1982). *In search of excellence*. New York, NY: Harper & Row.

Phillips, K. W., Mannix, E. A., Neale, M. A., & Gruenfeld, D. H. (2004). Diverse groups and information sharing: The effects of congruent ties. *Journal of Experimental Social Psychology*, *40*(4), 497-510.

Phillips, R. A. (1997). Stakeholder theory and a principle of fairness. *Business Ethics Quarterly*, 7(1), 51-66.

Phillips, R. A. (2003). Stakeholder legitimacy. *Business Ethics Quarterly*, *13*(1).

Phillips, R. A., Freeman, R. E., & Wicks, A. C. (2003). What stakeholder theory is not. *Business Ethics Quarterly*, *13*(4), 479-502. Retrieved from http://www.jstor.org/stable/3857968

Phillips, R. A., & Margolis, J. M. (1999). Toward an ethics of organizations. *Business Ethics Quarterly*, 9(4), 619-638.

Plank, S. (2001). Career and technical education in the balance: An analysis of high school persistence, academic achievement, and postsecondary destinations. Retrieved from National Research Center for Career and Technical Education: http://www.nccte.com.

Preskill, S., & Brookfield, S. D. (2009). *Learning as a way of leading: Lessons from the struggle for social justice.* San Francisco, CA: Jossey-Bass.

Pulakos, E. D., Dorsey, D. W., & Borman, W. C. (2003). Hiring for knowledge-based competition. In S. E. Jackson, M. A. Hitt, & A. S. Denisi (Eds.), *Managing knowledge for sustained competitive advantage: Designing strategies for effective human resource management* (pp. 155-176). San Fransisco, CA: Jossey-Bass.

Quigley, N. R., Tesluk, P. E., Locke, E. A., & Bartol, K. M. (2007). A multilevel investigation of the motivational mechanisms underlying knowledge sharing and performance. *Organization Science*, *18*(1), 71-88.

Rapp, D. (2002). Social justice and the importance of rebellious, oppositional imaginations. *Journal of School Leadership*, *12*(3), 226-245.

Rawls, J. (1993). *Political liberalism*. New York, NY: Columbia University Press.

Reagans, R., & McEvily, B. (2003). Network structure and knowledge transfer: The effects of cohesion and range. *Administrative Science Quarterly*, *48*(2), 240-267.

Rebell, M. A. & Wolff, J. R. (Ed.). (2009). *NCLB at the crossroads: Reexamining the federal effort to close the achievement gap*. New York, NY: Teachers College Press.

Reitzug, U. C., & O'Hair, M. J. (2002). Tensions and struggles in moving toward a democratic school community. In G. C. Furman (Ed.), *School as community: From promise to practice* (pp. 119-141). Albany, NY: SUNY Press.

Reitzug, U. C., & Reeves, J. E. (1992). 'Miss Lincoln doesn't teach here': A descriptive narrative and conceptual analysis of a principal's symbolic leadership behavior. *Educational Administration Quarterly*, *28*, 185-219.

Rupp, D. E., & Cropanzano, R. (2002). The mediating effects of social exchange relationships in predicting workplace outcomes from multi-foci organizational justice. *Organizational Behavior & Human Decision Processes*, *89*(1), 925-946.

Rustin, M. (1997). Stakeholding and the public sector. In G. Kelly, D. Kelly, & A. Gamble (Eds.), *Stakeholder capitalism* (pp. 72-81). London: MacMillan.

Sapsford, R. (1999). *Survey research*. Los Angeles, CA: SAGE.

Schepers, P., & Van den Berg, P. T. (2007). Social factors of work-environment creativity. *Journal of Business and Psychology*, *21*(3), 407-428.

Scott, J. L., & Sarkees-Wircenski, M. (2008). *Overview of career and technical education* (4th ed.). American Technical Publishers.

Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (3rd ed.). New York, NY: Teachers College Press.

Senge, P. M. (1990). *The fifth discipline*. New York, NY: Doubleday.

Sergiovanni, T. J. (1992). *Moral leadership: Getting to the heart of school improvement*. San Francisco, CA: Jossey-Bass.

Sergiovanni, T. J. (1996). *Leadership for the schoolhouse: How is it different? Why is it important?* San Francisco, CA: Jossey-Bass.

Shapiro, H. S. & Purpel, E. E. (1993). *Critical social issues in American education: Toward the 21st century*. New York, NY: Longman.

Shapiro, J. P. & Stefkovich, J. A. (2001). *Ethical leadership and decision making in education: Applying theoretical perspectives to complex dilemmas.* Mahwah, NJ: Lawrence Erlbaum Associates.

Shields, C. M. (1999). Learning from students about representations, identity, and community. *Educational Administration Quarterly*, *35*, 1, 6, 129.

Shouse, R. C. (1996). Academic press and sense of community: Conflict, congruence, and implications for student achievement. *Social Psychology of Education*, *1*, 47-68.

Siemsen, E., Balasubramanian, S., & Roth, A. V. (2007). Incentives that induce task-related effort, helping, and knowledge sharing in work groups. *Management Science*, *53*(10), 1533-1550.

Sobel, D. (1996). *Beyond ecophobia: Reclaiming the heart in nature education*. Great Barrington, MA: The Orion Society & The Myrin Institute.

Sondergaard, S., Kerr, M., & Clegg, C. (2007). Sharing knowledge: Contextualizing socio-technical thinking and practice. *The Learning Organization*, *14*(5), 423-435.

Spender, J. C., & Grant, R. M. (1996). Knowledge and the firm: Overview. *Strategic Management Journal*, *17*, 5-9.

Staratt, R. J. (1994). *Building an ethical school: A practical response to the moral crisis in schools*. Washington, DC: Falmer Press.

Staratt, R. J. (2003). *Centering educational administration: Cultivating meaning, community, responsibility*. Mahwah, NJ: Lawrence Erlbaum.

Sternberg, E. (1998). *Corporate governance: Accountability in the marketplace*. London: The Institute of Economic Affairs.

Sternberg, E. (2000). *Just Business*. New York, NY: Oxford University Press.

Strike, K. A., Haller, E. J., & Soltis, J. F. (1998). *The ethics of school administration* (2nd ed.). New York, NY: Teachers College Press, Columbia University.

Strong, J. (1990). *The new Strong's exhaustive concordance of the Bible*. Nashville, TN: Thomas Nelson.

Southern Regional Education Board. Special Report by the National Center on Public Policy and Higher Education and the Southern Regional Education Board. (2010). *Beyond the Rhetoric: Improving College Readiness through Coherent State Policy*. Retrieved from http://publications.sreb.org/2010/Beyond%20the%20Rhetoric.pdf

Szulanski, G., Cappetta, R., & Jensen, R. J. (2004). When and how trustworthiness matters: Knowledge transfer and the moderating effect of casual ambiguity. *Organization Science*, *15*, 600-613.

Stone III, J. R. & Lewis, M. V. (2012). *College and career ready in the 21st century: Making high school matter*. New York, NY: Teachers College Press.

Tagliaventi, M. R., & Mattarelli, E. (2006). The role of networks of practice, value sharing, and operational proximity in knowledge flows between professional groups. *Human Relations*, *59*(3), 291-319.

Taylor, E. Z. (2006). The effect of incentives on knowledge sharing in computer-mediated communications: An experimental investigation. *Journal of Information Systems*, *20*(1), 103-116.

Taylor, F. W. (2011). The principles of scientific management. In J. M. Schafritz, J. S. Ott, & Y. S. Jang (Eds.), *Classics of organization theory* (pp. 65-76). Boston, MA: Wadsworth. (Reprinted from *Bulletin of the Taylor Society*, 1916)

Theoharris, G. (2008, March). *A framework for social justice leadership*. Paper presented at the American Educational Research Association Annual Convention, New York, NY. Retrieved from http://69.8.231.237/uploadedFiles/SIGs/Leadership_for_Social_Justice_(165)/Annual_Meeting/DefiningsjLprinTHEOHARIS.doc.

Thomas, R. M., & Brubaker, D. L. (2000). *Theses and dissertations: A guide to planning, research, and writing.* Westport, CT: Bergin and Garvey.

Thomas-Hunt, M. C., Ogden, T. Y., & Neale, M. A. (2003). Whose really sharing? Effects of social and expert status on knowledge exchange within groups. *Management Science*, *49*(4), 464-477.

Toch, T. (1991). *In the name of excellence: The struggle to reform the nation's schools, why it's failing, and what should be done*. New York, NY: Oxford University Press.

Tsoukas, H., & Vladimirou, E. F. I. (2001). What is organizational knowledge? *Journal of Management Studies*, *38*, 973-993.

Valenzuela, A. (1999). *Subtractive schooling.* Albany, NY: SUNY Press.

Vinovskis, M. (2009). *From a nation at risk to no child left behind: National education goals and the creation of federal education policy*. New York, NY: Teachers College Press.

Wang, C. C. (2004). The influence of ethical and self-interest concerns on knowledge sharing intentions among managers: An empirical study. *International Journal of Management*, *21*(3), 370-381.

Wang, S. & Noe, R. A. (2009). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, *20*, 115-131. doi: 10.1016/j.humr.2009.10.001

Wasko, M. M., & Faraj, S. (2000). "Is this what one does": Why people participate and help others in electronic communities of practice. *The Journal of Strategic Information Systems*, *9*(2-3), 155-173.

Weiss, R. S. (1994). *Learning from strangers: The art and method of qualitative interview studies*. New York, NY: The Free Press.

Willem, A., & Scarbrough, H. (2006). Social capital and political bias in knowledge sharing: An exploratory study. *Human Relations*, *59*(10), 1343-1370.

Wu, W. L., Hsu, B. F., & Yeh, R. F. (2007). Fostering the determinants of knowledge transfer: A team-level analysis. *Journal of Information Science*, *33*(3), 326-339.

Yang, C., & Chen, L. C. (2007). Can organizational knowledge capabilities affect knowledge sharing behavior? Journal of Information Science, 33(1), 95-109.

Yukl, G. A. (2002). *Leadership in organizations* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.

APPENDIX A

District Gatekeeper Permission for Educator Participation Letter

[District]

Dear [*title, first name, last name*]

I would like to request your permission to invite applicable educators in your school district to participate in a research study entitled: *College-Ready, Career-Ready and Career- and College-Ready Opinion Study.* I am examining teacher opinion related to college-ready, career-ready and career- and college-ready preparation programs to ascertain the influence teachers have with students in post-secondary, career and technical training and marketplace advancement. The information gathered should be beneficial to secondary and postsecondary educational leaders charged with the implementation of large-scale reform while improving student achievement. This study is part of my dissertation research for a doctoral degree in Educational Leadership and Policy Analysis from the University of Missouri-Columbia.

For the study, a sampling was selected of educators who exhibit the characteristics of a learning leader and are currently employed in a comprehensive high school or a shared-time career and technical educational institution. I am seeking your permission as an administrator of the [*Name of District/Building] School* District to contact the principals and applicable faculty within the district for the purpose of inviting applicable educators to participate in this study. A copy of the survey protocol, as well as the on-line informed consent form is attached for your review.

Participation in the study is completely voluntary. Participants may withdraw from participation at any time without penalty up until 30 days beyond completion of the survey. Participants' answers and the district's identity will remain confidential, anonymous, and separate from any identifying information. The researcher will not list any names of participants or their corresponding institutions in the dissertation or any future publications of this study.

Please do not hesitate to contact me with any questions or concerns about participation either by phone at (816) 872-6193 or by electronic mail at: navigatehope@yahoo.com. In addition, you are welcome to contact the dissertation advisor for this research study, Dr. Barbara Martin, at 660-543-8823 or by email at bmartin@ucmo.edu at any time throughout the course of the study.

If you choose to allow district participation in this study, please complete the attached documentation. Please retain a copy of this letter and your written consent for future reference. Thank you for your time and consideration in assisting further study of leadership theories that encourage successful reform for the sake of children.

Sincerely,

David A. Ruhman
Doctoral Candidate

GATEKEEPER PERMISSION FOR CONDUCTING ON-LINE SURVEY

In the ___ Public School District

The district has reviewed the proposed on-line survey and informed consent and grants permission to David Ruhman, Doctoral Student at the University of Missouri-Columbia in the Education Leadership and Policy Analysis program, to invite applicable educators in the school district to participate in a research study entitled: *College-Ready, Career-Ready and Career- and College-Ready Opinion Study.*

Signed:

_____

Position:

_____

Date: _____ /_____ / _____

APPENDIX B

College-Ready, Career-Ready, or Career- and College-Ready On-line Survey

Career-, College- or Career- and College-Ready

University of Missouri-Columbia Education Leadership and Policy Analysis Dissertation Research

Informed Consent

What is the study about? You are invited to participate in a research study being conducted for a dissertation at the University of Missouri in Columbia, Missouri. The researcher is interested in your opinions about programs of study focused on college-ready (e.g., Advanced Placement [AP], International Baccalaureate [IB], or Dual Credit Courses [DCC]), career-ready (e.g., Career and Technical Education Coursework [CTE], Distributive Education Clubs of America [DECA], Future Business Leaders of America [FBLA], Family, Career and Community Leaders of America [FCCLA], or Future Famers of America [FFA]) or career- and college-ready (a combination of college-ready and career-ready opportunities [examples given previously] based on student interest and a multi-pronged plan for achieving strong academics and advanced training/experience while the student is still in high school) preparation of students. You were selected to participate in the study because you are employed at a district that has a comprehensive high school or hosts a career and technical education center. There is no deception in this study. Your opinion is sought simply to aid in understanding the orientation staff have when helping students prepare for postsecondary education, training and work experiences.

What will be asked of me? You will be asked to answer some questions in an online survey regarding your feelings about the program of studies available for your students and how you weigh the importance of these offerings to your students. Please answer the questions in the survey as they apply to your experiences or opinion. With four open-ended questions to allow you to give us a deeper description of your opinion, it is estimated that the survey will take 20-30 minutes of your time.

Who is involved? The following people are involved in this research project and can be contacted at any time through email. The researcher or the chair would be happy to answer any questions that may arise about the study.

Please direct any questions or comments to:

Principal Researcher:	David A. Ruhman, Ed. S.	navigatehope@yahoo.com
Dissertation Chair:	Dr. Barbara Martin	bmartin@ucmo.edu

Are there any risks? There are no known risks in this study. Because some of the questions ask about offerings you may not be very familiar with, this could be distressing to some people; however, you may stop the study at any time. Please answer all questions to the best of your ability and allow yourself to be free from expectations that there are answers that are better than others. It is your opinion that is sought. Share what you think in answering the questions.

University of Missouri-Columbia Education Leadership
and Policy Analysis Dissertation

What are some benefits? There are no direct benefits to you for participating in this research. No incentives are offered. The results have scientific interest that may eventually have benefits for the improvement in organizing and offering programs of study for college-ready (e.g., AP, IB, or DCC), career-ready (e.g., DECA, FBLA, FCCLA, or FFA) or career- and college-ready (a combination of college-ready and career-ready opportunities based on student interest and a multi-pronged plan for achieving strong academics and advanced training/experience while the student is still in high school) preparation for postsecondary education, training and work.

Can I stop participating in the study? You have the right to withdraw from the study at any time without penalty. Please do not skip any questions as your answers are important in order for the study to reflect professional opinions.

What if I have questions about my rights as a research participant or complaints? If you have questions about your rights as a research participant, any complaints about your participation in the research study, or any problems that occurred in the study, please contact the researchers identified in the consent form. Or, if you prefer to talk to someone outside the study team, you can contact the University of Missouri-Columbia's Institutional Review Board at irb@misouri.edu or (573) 882-9585.

We would be happy to answer any questions that may arise about the study. Please direct your questions or comments to: David A. Ruhman (navigatehope@yahoo.com), or Dr. Barbara Martin (bmartin@ucmo.edu).

Participant Online Consent Signature:
I have read the description above for the College-Ready, Career-Ready and Career- and College-Ready Opinion Study. I understand what the study is about and what is being asked of me. In lieu of a signed consent form, my participation in the study by answering the questions in the survey indicates that I have read and understand the informed consent form and agree to participate in the study.

Career-, College- or Career- and College-Ready

University of Missouri-Columbia Education Leadership
and Policy Analysis Dissertation

Definitions:
Please read and use the following definitions when completing this survey.

College-Ready: A student graduating college-ready from secondary education is capable of enrolling in credit-bearing courses without the need for remediation. Stone and Lewis (2012) indicate that states advocate the following means for ensuring college-ready graduates: high standards and expectations, rigorous courses aligned with standards, and tests to measure students progress toward achieving the standards.

Career-Ready: According to Stone and Lewis (2012), a student graduating career-ready from secondary education masters three types of skills: academic knowledge (occupational expression of academic knowledge), employability skills (often called soft skills, personal qualities as responsibility, self-management, and integrity), and technical skills (skill sets unique to the specific occupational context).

Career- and College-Ready: A combination of what is defined as career-ready and college-ready. It is the sum of the technical and occupational expression of academic knowledge, technical skill and knowledge unique to a career path, and employability skills and knowledge set as it applies to all workplaces (Stone & Lewis, 2012)

Technical Skills Training Courses: Courses designed to demonstrate focus on academic skill development while simultaneously preparing the youth and adult learners for "pathways to high-skill, high-paid, or high-demand occupations" (Stone & Lewis, 2012, p. 13). A course designed to lead from coursework to employment at greater than entry-level standing. Three main areas of opportunity exist in today's high schools: family and consumer sciences [human development, personal and family finance, housing and interior design, food science, nutrition, wellness, textiles, and apparel]; general labor market preparation [career exploration, introduction to technology, and basic computer applications]; and occupational preparation [skills within career clusters that increase in specificity as students advance]. (Stone & Lewis, 2012)

Academic/Core Courses: Courses inclusive of the following subject areas: English/Language Arts and/or Communication Arts; Mathematics; Science; Social Studies.

STEM Courses: Science, Technology, Engineering and Mathematics courses in an intentionally designed curriculum sequence.

Career-, College- or Career- and College-Ready

DEMOGRAPHICS

The information requested in this section of the survey will help to determine if there are differences in responses based on demographic factors. Please answer each question as it applies to you. Thank you!

* 1. What is your gender?

- ◯ Female
- ◯ Male

* 2. How long have you been employed in education?

- ◯ completing 1-5 years
- ◯ completing 6-10 years
- ◯ completing 11-15 years
- ◯ completing 16-20 years
- ◯ completing 20 years of more

* 3. What statement best describes your area of teacher certification?

- ◯ Core Academic Instructor (English/Language Arts; Mathematics; Science; Social Studies)
- ◯ Non-Core Academic Instructor
- ◯ High School Career and Technical Education Instructor (FACS, Ag Ed, Business, Industrial Technology, PLTW)
- ◯ Career and Technology Center or Shared-Time Career and Technical Education Instructor
- ◯ Building Level Administration
- ◯ Central Office Administration

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

Answer the following questions using a 10-point scale, with 1 meaning insignificant and 10 meaning significant.

* 4. Rate the following for impact on successful preparation for achievement beyond high school.

	1 - Insignificant	2	3	4	5	6	7	8	9 - Significant
a. Academic knowledge	○	○	○	○	○	○	○	○	○
b. Employability skills and knowledge	○	○	○	○	○	○	○	○	○
c. Technical skills and knowledge	○	○	○	○	○	○	○	○	○
d. Occupational expression of academic knowledge	○	○	○	○	○	○	○	○	○
e. Employability skills that apply to all workplaces (e.g., SCANS, 21st Century Skills)	○	○	○	○	○	○	○	○	○
f. Unique skills determined by career clusters, pathways, or an occupation	○	○	○	○	○	○	○	○	○
g. Technical expression of academic knowledge	○	○	○	○	○	○	○	○	○

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

In the following section, please read the statement and indicate whether you strongly disagree, somewhat disagree, somewhat agree, or strongly agree. Please provide your opinion whether the statement is an area you work with or addresses something outside of your area of responsibilities.

* 5. Academic knowledge in core courses is important to student preparation for college enrollment

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

* 6. High school programs of study should include technical skills training courses as part of the required curriculum

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

* 7. For high school programs of study to be rigorous, what is taught must reflect real world problem solving and critical thinking skills

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

* 8. Academic classrooms are a poor match for the interests and learning styles of students

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

In the following section, please read the statement and indicate whether you strongly disagree, somewhat disagree, somewhat agree, or strongly agree. Please provide your opinion whether the statement is an area you work with or addresses something outside of your area of responsibilities.

* 9. In my opinion, STEM (Science, Technology, Engineering and Mathematics) courses encourage stronger academic engagement of high school students.

- ( ) Strongly Disagree
- ( ) Somewhat Disagree
- ( ) Somewhat Agree
- ( ) Strongly Agree

* 10. In my opinion, STEM courses assist students in developing a clear set of employability skills

- ( ) Strongly Disagree
- ( ) Somewhat Disagree
- ( ) Somewhat Agree
- ( ) Strongly Agree

* 11. In my opinion, STEM courses increase options available to students after completion of the high school curriculum

- ( ) Strongly Disagree
- ( ) Somewhat Disagree
- ( ) Somewhat Agree
- ( ) Strongly Agree

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

Please type your response in the provided space.

* 12. In my opinion, STEM (Science, Technology, Engineering and Mathematics) and other school initiatives create the following impact on instruction in my class.

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

In the following section, please read the statement and indicate whether you strongly disagree, somewhat disagree, somewhat agree, or strongly agree. Please provide your opinion whether the statement is an area you work with or addresses something outside of your area of responsibilities.

* 13. High school core academic courses should require instruction in literacy, mathematical and scientific principles to improve student problem solving and critical thinking skills

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

* 14. Required technical skill training in the high school curriculum

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
a. Enhances engagement in education	◯	◯	◯	◯
b. Improves academic and technical achievement through contextualized instruction.	◯	◯	◯	◯
c. Eases the transition to further education and/or employment	◯	◯	◯	◯

* 15. Technical skills training courses serve students who are not academically oriented to the high school curriculum

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

In the following section, please read the statement and indicate whether you strongly disagree, somewhat disagree, somewhat agree, or strongly agree. Please provide your opinion whether the statement is an area you work with or addresses something outside of your area of responsibilities.

* 16. In my opinion, the following will help reduce the high school drop out rate:

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
a. Increased emphasis on moving all youth to college	○	○	○	○
b. Increased focus on STEM courses	○	○	○	○
c. Narrowing of the high school curriculum to increase academic rigor	○	○	○	○

* 17. To meet higher academic standards students will work harder when required to take additional academic courses

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Somewhat Agree
- ○ Strongly Agree

* 18. The basic high school curriculum should be balanced between high academic standards and technical skill training

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Somewhat Agree
- ○ Strongly Agree

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

In the following section, please read the statement and indicate whether you strongly disagree, somewhat disagree, somewhat agree, or strongly agree. Please provide your opinion whether the statement is an area you work with or addresses something outside of your area of responsibilities.

* 19. Despite an emphasis on college-for-all, high school graduates still struggle to succeed in preparing for life after graduation

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

* 20. Increased enrollment in technical skills training courses will help reduce the drop out rate for students

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

* 21. Students who are encouraged to be college- and career-ready are more likely to become productive adults

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

In the following section, please read the statement and indicate whether you strongly disagree, somewhat disagree, somewhat agree, or strongly agree. Please provide your opinion whether the statement is an area you work with or addresses something outside of your area of responsibilities.

* 22. College- and career-ready courses equally prioritize attainment of academic content and achievement standards

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

* 23. In my opinion, the effectiveness of instruction in high school programs of study is impacted by:

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
a. Relevance of the instruction.	◯	◯	◯	◯
b. Less full-class lecture and discussion.	◯	◯	◯	◯
c. More time with students working through real world problems.	◯	◯	◯	◯
d. Opportunities for students to engage in guiding instruction.	◯	◯	◯	◯

* 24. The overarching goal of high school instruction is to prepare young people to be lifelong learners who successfully navigate the marketplace

- ◯ Strongly Disagree
- ◯ Somewhat Disagree
- ◯ Somewhat Agree
- ◯ Strongly Agree

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

Please type your response to the following statement in the text box provided.

* 25. Describe the influence you have on student course selection.

* 26. Describe the influence you feel you have on student engagement for college and career development.

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

Answer the following question using a 10-point scale, with 1 meaning less likely and 10 meaning most likely.

* 27. Please rate your willingness to make the following recommendations to students you work with:

	1 - Less Likely	2	3	4	5	6	7	8	9 - Most Likely
a. Recommend students take a balanced combination of college preparatory (designated core content area units) and technical skills training courses (at least four units) while in high school.	○	○	○	○	○	○	○	○	○
b. Recommend students concentrate on college preparatory courses exclusively while in high school.	○	○	○	○	○	○	○	○	○
c. Recommend students take as many courses (academic or technical skill training) related to the career path identified by the student for future employment.	○	○	○	○	○	○	○	○	○
d. Recommend students concentrate on career preparation courses exclusively while in high school.	○	○	○	○	○	○	○	○	○

Career-, College- or Career- and College-Ready

RESEARCH QUESTIONS

Please type your response in the text box provided.

* 28. Complete this statement: "My recommendations for a program of study are important because…"

Career-, College- or Career- and College-Ready

THANK YOU!

You have completed the survey. I am so grateful for your input. Please accept my sincerest thanks for your effort to make this research possible. If you want information about the results please email me at:

navigatehope@yahoo.com

I will send you results when they are available. Again, Thank you! You are the reason education is the best profession in the world. Have a GREAT SUMMER!

Respectfully,
David A. Ruhman, Doctoral Candidate
University of Missouri - Columbia
Education Leadership and Policy Analysis

APPENDIX C

Institutional Review Board Approval Letter (page 1)

Institutional Review Board
University of Missouri-Columbia

190 Galena Hall; Dc074.00
Columbia, MO 65212
573-882-3181
irb@missouri.edu

April 20, 2016

Principal Investigator: David A Ruhman, Educational Doctorate
Department: ELPA

Your Exempt Application to project entitled College-Ready, Career-Ready or Career- and College-Ready: Do education stakeholder perceptions create barriers to student engagement? was reviewed and approved by the MU Institutional Review Board according to the terms and conditions described below:

IRB Project Number	2002524
IRB Review Number	204562
Initial Application Approval Date	April 20, 2016
IRB Expiration Date	April 20, 2017
Level of Review	Exempt
Project Status	Active - Open to Enrollment
Exempt Categories	45 CFR 46.101b(2)
Risk Level	Minimal Risk

The principal investigator (PI) is responsible for all aspects and conduct of this study. The PI must comply with the following conditions of the approval:

1. No subjects may be involved in any study procedure prior to the IRB approval date or after the expiration date.
2. All unanticipated problems, adverse events, and deviations must be reported to the IRB within 5 days.
3. All changes must be IRB approved prior to implementation unless they are intended to reduce immediate risk.
4. All recruitment materials and methods must be approved by the IRB prior to being used.
5. The Annual Exempt Form must be submitted to the IRB for review and approval at least 30 days prior to the project expiration date. If the study is complete, the Completion/Withdrawal Form may be submitted in lieu of the Annual Exempt Form
6. Maintain all research records for a period of seven years from the project completion date.
7. Utilize all approved research documents located within the attached files section of eCompliance. These documents are highlighted green.

If you are offering subject payments and would like more information about research participant payments, please click here to view the MU Business Policy and Procedure:

APPENDIX C

Institutional Review Board Approval Letter (page 2)

http://bppm.missouri.edu/chapter2/2_250.html

If you have any questions, please contact the IRB at 573-882-3181 or irb@missouri.edu.

Thank you,
MU Institutional Review Board

VITA

The delivery of effective academic and technical skill set development is the central personal and professional focus of my career. In various positions I developed, implemented and evaluated comprehensive Board Member Development programs in coordination with the local, regional and state stakeholders. I increased student enrollment at multiple Career and Technology Centers through use of both internal and external resources to improve and market programs. I created and funded two alternative education programs working with local education stakeholders and juvenile probation and parole groups. I was able to maintain strong programs at multiple institutions through the implementation of employee induction programs.

One of many new initiatives I developed was a process by which students could complete career and technical education and early college credit, especially addressing the need for advanced and remedial reading comprehension, mathematical computation, written and oral communication skills. These efforts were designed to assist students in transitioning to higher education or advanced training and employment. Through my professional experience in local, state and national learning communities, I have recognized the value of developing and maintaining strong internal and external engagement groups. I learned the importance of providing a voice for ideas, conducting evaluation and celebrating accomplishments in organizational development. In every position I filled, the need for integrity and fidelity in financial matters has proven to be a foundation for effective management and administration.

While completing the doctoral program, I have been self-employed as a personal and professional coach. In addition to working with individuals in networking and technology, I assisted veterans in developing resumes and completing interviews for employment after leaving the service. I worked in developing curriculum for an on-line delivery software company in core curriculum, career and technical education and Advanced Placement courses. In addition, I dedicated considerable time to going deeper into the dissertation. Developing fidelity in service to others required an expansion in understanding the current conditions of the workforce. I reintroduced myself to key leadership practices and was able to obtain valuable input from employees regarding today's marketplace and perceptions of leaders.

Prior to these opportunities I was employed for over nineteen (19) years in secondary education administration. My secondary school experience has included career and technical, comprehensive high school and alternative education administration. During my time in career and technical education, I served in every available secondary education role within the State of Missouri for Career and Technical Education Administrators, as well as serving in several regional and national advisory roles. Prior to my engagement in secondary education, I was employed for six (6) years in post-secondary education serving in residence life administration with a focus on facilities and operations. I also served as an adjunct professor. Upon graduation from college, I started my professional career as a

Treatment Team Coordinator at a home for Emotionally Disturbed adolescents using a Peer Culture model.

My professional passion developed into a desire to deliver deep integration of academic knowledge and technical skill training through real world, contextualized learning. I am committed to deliver my passion in dynamic, relevant, 21st-century methods of evaluation and needs assessment. I strive to connect individuals, departments and organizations with successful growth and improvement planning through leadership development and policy analysis. Successful administration involves vibrant engagement of the learning process energizing individuals, departments and organizations in the pursuit of a life-long commitment to intellectual, social and emotional growth achieving optimal professional preparation.

I am a life-long learner with a desire to aid students in developing and realizing personal, professional and career goals. I dedicate my energy to developing a safe and responsive learning environment for all students, faculty, staff and the greater community. I provide direct feedback for students, faculty, staff and the greater community to assist internal and external stakeholders in deepening a comprehensive understanding of leading theories and best practices.