A Case Study of a Career Academy:
Toward a Conceptual Framework of School-Industry Partnerships

by

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A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Auburn, Alabama
May 9, 2015

Keywords: educational partnerships, career academies, Alabama Power Company, smaller learning communities, college and career readiness, high school reform

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Abstract

School-business partnerships that provide authentic learning for students have been a well-documented part of our history. This study examined one such educational partnership developed to create a career academy. The purpose of the academy was to prepare students for college and career, and to better equip the future workforce. The study sought to identify facilitating elements of this partnership, to examine the perceived benefits to the participants and organizations, to identify possible avenues of improvement and to design a conceptual framework by which to understand and improve partnerships.

The method of inquiry was a descriptive case study. The population included all participants in the Alabama Power Business Academy at Carroll High School in Ozark, Alabama. Purposeful sampling provided a level of knowledge and information to the topic investigated. Pre-existing evaluation data and documents were combined with study interview and observation data.

Six elements were identified as facilitators of the educational partnership: (a) purposeful planning and flexibility in implementation, (b) shared values and common goals, (c) regular and open communication, (d) commitment, (e) trust, and (f) leadership. These six elements were evaluated on a continuum that includes three partnership types: cooperation, coordination, and collaboration. Benefits perceived by the participants included curricular relevance, increased conversations between students and adults, an enhanced understanding of the world of work, an

increase in credential attainment by students, and an increase in the development of essential skills.

The findings of the study were analyzed using the framework created by Barnett, Hall, Berg, and Camarena (2010) and a potential adaptation was proposed. Implications for practice and recommendations for future research were presented.

Acknowledgments

I would like to express my sincere gratitude to the distinguished advisors on my research committee. I am thankful for and awed by the tireless commitment, enthusiastic support, and thoughtful guidance that they gave me throughout my studies and dissertation journey. I extend special appreciation to Dr. Kochan, my committee chair. She was the sunshine shining throughout this educational voyage. I recognize and appreciate her warm-hearted taskmaster ways. She encouraged and supported me just enough to keep me focused and on-course when life pulled me away. Dr. Kochan instilled confidence in me as a researcher and writer, and I will be forever grateful. Dr. Reames encouraged and supported me from the beginning of my graduate studies. She helped me to find humor and positive growth opportunities throughout the process. Her advice and guidance were invaluable. Dr. Kensler was an inspiration for me in this scholarly excursion. Her love of learning and teaching spoke to me. Dr. Patrick gave of her time and expertise to be a part of my committee and I valued her advice and insight throughout the process. I feel blessed to have had my life enhanced by each of these gifted advisors.

My friends and family provided the solid structure of support that I needed during this process. Dr. Peter B. Bruggink, professor at the Florida State University, was my friend and guide-on-the- side. I am grateful for his encouragement and counsel. My mother, sisters, and brother were attentive to my need to write, and they encouraged and supported me at all times. My sister Traci acted as an external reader and gave valuable suggestions that enlightened my

writing. I also want to thank the participants of the Alabama Power Business Academy for sharing their stories and perceptions. They were the case for my research.

Most of all, I would like to thank the love of my life, David, and our son Mason for their support and sacrifice throughout this goal attainment. David has been my most trusted confident and source of strength. I thank him for encouraging me to reach for the stars. I dedicate this accomplishment to him.

I give God the glory and praise, and thank Him for His work in my life.

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CHAPTER 1: NATURE OF STUDY

Educational partnerships have been a well-documented part of our history. In the late 1800s, industrial changes demanded that businesses partner with education in response to the emerging needs of the workforce. Later in the 1970s, partnership efforts were seen largely as public relations concerns where business gave financial and equipment donations to local schools or purchased incentives for specific school improvement initiatives. In the 1980s, businesses acknowledged a lack in preparation of entry-level employees as the economy moved from manufacturing to service driven. *A Nation at Risk* was published in 1983, which persuasively articulated the need for educational reform. This report claimed that public support, i.e. partnerships, was the greatest resource available to influence the quality of education (Burke, 1986). Business-education partnerships began to explode in number as industry realized the need to regain a vested interest in preparing its future workforce. (Grobe, Curnan, & Melchior, 1990)

Tushnet (1993) pointed out that within the last decade educational partnerships have become popular fixtures in thousands of school systems. He noted that these partnerships connect schools to the human and financial resources outside their facility. Tushnet reported that in order to create educational opportunities for all students and to prepare them for future college and/or career challenges, everyone --- schools, businesses, and other community representatives --- will be required to collaborate and support mutual goals and a vision for the type of education that students need to compete in the global economy. Thus, he viewed such partnerships as essential since they have the potential to enhance educational experiences and provide students, teachers, and industry representatives with opportunities to grow. Burke (1986) found that most business people and educators consider school-business partnerships as essential for developing the workforce.

Partnerships are different and they may function differently, based on purposes and context (Barnett et al., 2010; Tushnet, 1993). Tushnet established that because of the differences, partnerships do not require complete collaboration and equality among participants. He explained that collaboration can extend from working together on specific events to shared decision making on all goals. Researchers reported that the appropriate level of interaction between partners is related to their goals, the reasons and motivators for involvement, and the commitments each are willing to make (Dhillon, 2005, 2013; Tushnet, 1993).

The case reported in the present research study explored an educational partnership that was created with the common goal of establishing a business career academy where business representatives work with teachers to bring rigor and relevance to learning while preparing students for further studies or work after high school.

Background for the Study: College and Career Readiness

Criticisms of education in the United States and calls to reform have a long history, which continues to this day. For example, in a presentation to the Harvard Graduate School of Education in 2012, U.S. Secretary of Education Arne Duncan warned

> In 2012, our nation has urgent educational problems. In a globally-competitive, knowledge-based economy, it is a stain upon our nation that one in four American students fails to finish high school on time or drops out….That is morally unacceptable and economically unsustainable. (Duncan, 2012, p. 2)

Duncan explained that in a single generation, America has dropped from boasting the highest college fulfillment rate in the world to being sixteenth. He asserted that our international performance is mediocre at best, and many nations are out-performing and out-educating the United States. He lamented that our students lead the world only in their level of self-esteem.

Dealing with the issue of lack of preparation for life and the world as it exists today, Miller (2002) called "the current American system of education…inefficient, uneconomical, and out of date" (p. 4). Miller wrote that secondary education is inefficient because workforce trends and needs are disregarded; uneconomical because money is wasted on a one size fits all type of college preparatory education; and out of date because graduates lack the essential skills (or soft skills) and literacy and math. Essential skills refer to the employability skills (i.e. critical thinking, collaboration, punctuality, work ethic, reliability, presentation, professionalism, responsibility, integrity, etc.) that the workforce finds lacking in entry level employees. Some reform efforts have disguised academic deficiencies as workplace skills deficits failing to address the issue of high school graduates who enter college or the workforce unprepared and lacking the reading and math skills and the essential skills needed to succeed. Miller called for a reform that teaches rigorous academic skills through relevant application opportunities. He reported that even students destined to pursue a four-year degree need to learn through application that is relevant to what they will do in the future.

In recent years, attention to secondary school reform has eclipsed the longstanding K-2 focus (Creech & Clouse, 2013). Creech and Clouse found that high schools have become more aware of the need for college and career ready graduates and have focused more time on indicators that move students to being ready for life. In 2010, only 24% of the American students who took the ACT assessment met the college and career readiness benchmarks for reading, math, English, and science, while 28% met none of the benchmarks (ACT, 2011). The ACT data revealed a lack of academic achievement not only for the individuals involved, but also for our nation. Organisation for Economic Co-operation and Development (OECD) research indicated a positive relationship between student attainment of higher level skills and national economic

prosperity. Growths in the Programme for International Student Assessment (PISA) scores correlated with growths in the national gross domestic product (GNP). An ACT analysis of the PISA test results indicated that a performance increase of twenty-five points on the PISA, translated to an eleven percentage points increase of students meeting the ACT College and Career Readiness Benchmarks. According to the ACT (2011) researchers, such an increase could be associated with an increase in the US GDP of approximately $507 billion annually. McKinsey & Company (2009) suggested that if United States students had steadily improved on the National Assessment of Educational Progress (NAEP) and those who scored below average in 2009 had reached the national average by 2012; the GDP would be three to five percent higher. The McKinsey & Company's report summarized the connection between the gaps in student achievement and economic prosperity by concluding that the chronic underachievement of students in America has been a contributing factor to our national recession.

Symonds (2012) wrote of the importance of teens and young adults acquiring the skills, academic and work related, needed to succeed in life beyond high school. He suggested that students who graduated from American high schools had not developed the skills needed for the present day workforce. He advised that we were in peril of producing a "wasted generation" that may not reach its potential, which is both a "human and economic tragedy" (Symonds, p. 32). Employment while in high school was found to have a positive effect on future employment and earnings prospects for teens. Teens who worked during high school were more likely to graduate and achieve more motivated goals than their counterparts (Symonds, Schwartz, & Ferguson, 2011). However, it seemed that to some extent, teens have dropped out of the labor market. Economists Fogg and Harrington (2011) reported that the nation's unemployment for teens ages

sixteen to twenty-four had risen from 13% in 2000 to 25.8% in 2010. They hypothesized that this may be a result of the slow economy and more skilled workers who were available to work.

Some researchers suggested that the differences in vocational education abroad caused other countries to surpass America and that our past singular goal of preparing graduates to attend four-year colleges was too narrow of an approach (Symonds, 2012). Symonds, Schwartz, and Ferguson (2011) argued most effectively that the United States must adopt a multiple-pathway approach to educating our youth as the countries that have been more successful have done. Most American students are only "dipping their toes into career education," while students in other countries such as Germany, Switzerland and Australia "are experiencing total immersion" (Symonds, 2012, p. 35). Researchers have addressed the need to integrate job preparation more deeply into American high schools and to focus on the idea that every student should be college or career ready upon graduation. Many educational entities claimed that only through strong, collaborative school-business partnerships will schools be able to provide relevant workforce preparation for students along with critical skills needed for college success (Griffith & Wade, 2002).

Purpose of the Study

The primary purpose of this study was to examine the dynamics of a partnership between education and industry in establishing a career academy. The planning, implementation, and first year evaluation of a school's effort to reform a traditional high school through the career and technical education academy model was documented through interviews, observations, and documents. This study detailed the work between the school and industry partners to provide an education that is focused on improving both academic and applied skills in order to better prepare students for college, career, and life. The case helped to examine the influence of this

partnership on school reform and college and career ready students. It also provided information on the formation and the effect of the Alabama Power Business Academy on the students and adults. It added depth and knowledge to the research on career academies, which imparted clarity to the value of school partnerships with industry. Finally, the study afforded additional research on the topics examined, and provided a model for other schools and business partnerships to use.

Method

The method of inquiry was an instrumental case study. Case study research was an effective method to use because the phenomenon was observed within a real-life context by the researcher who had little control over it (Yin, 2014). The researcher wanted to describe a partnership through the eyes of those involved. Qualitative research was the research method used so that the researcher could provide a valid, richly detailed description of the partnership that produced a pilot career academy. Whittemore, Chase, & Mandle (2001) referred to validity in qualitative research as true and certain findings, which meant that the findings must sufficiently reflect the situation and support the findings. Lincoln and Guba (1991) maintained that naturalistic research, such as in a case study, should be credible, transferable and dependable. The primary purpose of this research was to provide insight into this partnership between education and industry through the voices of the participants who lived it. The academy facilitated understanding of the partnership that created it (Stake, 1995). The research method drew from the constructivist approach and embraced the stories and values of the participants. This researcher used the participants' words and experiences, which bequeathed voices to the inquiry and provided insight through the stories.

The research focused on what worked in the partnership and took an affirmative approach, known as Appreciative Inquiry, in its methodology (Cooperrider et al., 2008; Shuayb,

Sharp, Judkins & Hetherington, 2009). The researcher began by discovering the participants' best moments in the partnership, then asked them to envision what they wanted the collaboration to become. Appreciative Inquiry researchers believe that what is focused on becomes reality. Therefore, through focusing on a vision and best practices, the organization moves toward that vision for the future through action planning (Michael, 2005). More extensive detail regarding collection and analysis processes are presented in Chapter 3.

Conceptual Framework for the Study

Because partnerships between schools and external agencies require diligence and hard work in their formation and continuation, the conceptual framework posed by Barnett, Hall, Berg, and Camarena (2010) provided structure by which to compare the partnership process described in this study. Barnett et al. conceptualized a partnership framework that consisted of the types of collaboration that can grow between a school system and business and industry organizations. The framework exemplifies the dynamic nature of educational partnerships, including their emergent complex relationship. The evaluation of the partnership that was studied moved from the linear continuum that began with cooperation and independence and ended with collaboration and interdependence to the more dynamic and fluid partnership framework published in the article, A Typology of Partnerships for Promoting Innovations, which is presented in Chapter 2.

Research Questions

Four research questions guided this study:

1. What elements served to facilitate the creation and implementation of the partnership?
2. What were the perceived benefits to participants and the organizations involved?

3. How might the partnership be improved?
4. How can the educational partnership be described as a conceptual framework?

Significance of the Study

This study focused on understanding the dynamics that are involved in a partnership between education and industry. It detailed information about the processes and structures of this partnership as well as the outcomes through the end of year one. This research provided a roadmap for others who may attempt to implement similar programs. This case study added to the literature on this topic and provided a model which can be applied to others who wish to conduct similar case studies in other environments or who wish to engage in similar research processes.

Educational partnerships have been prevalent topics in popular, political, and professional literature. Policy and legislation have endorsed partnerships throughout the years (Carl D. Perkins Career and Technical Education Act of 2006, the Higher Education Act of 1998, and the re-authorization of the Elementary and Secondary Education Act). The U. S. Department of Education promoted their implementation and sustainment with grant programs (Baker, 1994). Substantial interests in educational partnerships have proliferated among governmental officials, business, and educational professionals.

Future Research

Holzer, Linn, and Monthey (2013) called for additional research into the impacts of CTE on employment, earnings, and educational attainment. Future research on how students are best prepared for careers and the impact of partnerships on teaching and learning were recommended by Watters and Christensen (2013). Research on career academies and high quality career and technical education exists, but has been under-researched (Castellano et al., 2003, p. 231).

An avenue for studying high school reform has been realized through career academies and the partnerships that connect schools and businesses. This study examined such a partnership in a rural district in the southern state of Alabama. The industry partner, Alabama Power, was the largest power company in a tri-state area. The high school enrolled 720 students in seven academies, including a Freshman Academy. The academy highlighted in this study is the Alabama Power Business Academy, which included 110 students. Future research of this academy partnership is needed. A study over multiple years to include quantitative data is encouraged. A longitudinal study of the partnership to determine whether facilitating factors, benefits, and outcomes are maintained or differ is suggested. It is also recommended to further extend and enhance the development of the conceptual framework.

There is a need for more qualitative research on school-industry partnerships. Not all partnerships are the same, so it is recommended that researchers look at the differences. Much can be learned from the differences discovered in partnerships.

Limitations of the Study

- The Alabama Power Business Academy was not initiated with the idea of it being a case study; therefore, it is probable that additional data could have been collected - particularly in the planning process.
- There was only one researcher, which limited the collection of all possible data from all the participants.

Definitions

ACT – previously American College Testing is now simply ACT and is the developer of a range of assessments and reporting system in use world-wide. Perhaps, it is now a commonly accepted "yardstick" for measuring college and career readiness.

Appreciative Inquiry – a research tool that uses a collaborative, co-constructing process to find the best in people, partnerships, organizations, and the world around them. It focuses on identifying the positive in what is studied, instead of the negative, problem-solving methodology that is more common in research (Shuayb et al., 2009).

Career Academies, or Career Themed Academies – smaller learning communities combining academic and career-related instruction to enhance both rigor and relevance in learning and provide exposure to the workforce through local business partnerships (Kemple & Shipes, 2000)

Career and Technical Education (CTE) – rigorous, hand-on education to provide learning experiences where students become aware of a broad spectrum of careers and develop skills that are applicable to personal and career roles that are necessary for employment in specific career areas or postsecondary study. Successful programs will prepare students for life as productive, critical-thinking members of society. It has taken the place of vocational education.

Career Pathway – a program of study in a broad career field that leads to employment in an occupational field and/or continued education and training (Hull, 2005, p.16)

CTE Program of Study - a multi-year sequence of courses that integrate core academic knowledge with technical and occupational knowledge and skills leading to higher levels of skill attainment over time with a unifying career theme around which to organize the curriculum (Brand, 2003, p. ii)

Case Study – Creswell (2007) defined case study research as the study of an issue explored within a bounded system i.e. a setting, a program, a context.

College and Career Readiness – adequate background in reading and math that no remediation classes are needed at college level; ability to apply critical thinking and analysis to daily living;

many of the fastest-growing jobs requiring a high school diploma expect knowledge and skills comparable to those needed of the first-year college student (Plan 2020, ACT).

College and Career Readiness Initiative – strengthens curriculum and combines conceptual learning with relevant practical application and hands-on experiences (Stern, Dayton & Raby, 2010).

Essential Skills - are also known as employability skills and soft skills. They are the skills necessary for obtaining and remaining successful in a job. Essential skills are the skills and attitudes that aid people in working well with their colleagues, in making critical decisions, developing respect, and becoming positive representatives of their companies. Examples of essential skills include communication, work ethic, honesty, integrity, critical thinking, punctuality, and presentation skills (Adapted from http://www.skillsyouneed.com/general/employability-skills.html).

High School Reform - a fundamental re-thinking of how high schools function— and placing a focus on teaching and learning like never before. (Duncan, 2012) An example of a high school reform model that will be discussed in this paper is the career academy model.

Partnership – an alliance of resources and expertise between organizations (Barnett, Hall, Berg & Camarena, 2010, p. 14-15) to achieve a mutually desired outcome, one that is not likely to be realized without the involvement of both agencies

Vendor Model of Partnership – short term, focused partnership where one agency is contracted for services by another; the agencies remain autonomous

Collaborative Model of Partnership – sustained time period of time working interdependently on complex, common goals with greater human and financial commitments

Symbiotic Partnership Model – usually develops from the Collaborative Model, more complex partnership with ambitious, mutually created goals and policies, systemic relationship between organizations

Spin-Off Partnership Model – the creation of a new organization from an existing partnership (Barnett et al., pp. 24-28)

Skills gap - found in young adults who lack the technical (hard) skills and the essential (soft) skills that are needed for the available middle-class job openings (Mills & Whitney, 2012).

Small learning community or small unit schooling – an interdisciplinary team of teachers who share a few hundred or less students for instruction, assumes responsibility for their educational progress across years, and exercises maximum flexibility to act on knowledge of students' needs (Oxley, 2006, p. 1)

Technical and Further Education (TAFE) - Australia's leading technical education and training provider

Vocational Education and Training – (VET) provides employment certification; providers of VET include TAFE institutes, adult and community education providers and agricultural colleges, industry skill centers, commercial and enterprise training providers and some universities (http://www.asqa.gov.au/about-vet/australias-vet-sector.html)

Wall-to-Wall Career Academies – when a school transforms itself into offering complete career pathways within an academy concept to all students…in the case studied, all sophomores must choose a career academy of interest where he/she will take at least three courses before graduation.

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter provides a review of the literature relevant to this study which helped to inform and provide context to the study's analysis. It was not intended to cover all related literature, but rather, to introduce the reader to major themes related to this study in order to render clarity to the need for this study and its pathway. The chapter contains five major sections. First, an introduction is presented where five popular myths about CTE are exposed and corrected. Then, a foundation for this study is presented including a section on the need for developing a broader vision for school reform, one that includes career and technical education, and career academies. This section is framed with a look at the literature on career and technical education in Australia and other countries. The third section details the collective responsibility for education and workforce development. In the next section, the development of a much expanded role for employers in supporting new educational pathways that rely on partnerships are examined, in addition to the part that educational partnerships play in the plan for collective collaboration in the pursuit of college and career ready graduates. The last section is a conclusion for the literature and practice at the high school where the study takes place.

CTE Myths Debunked

The top five misconceptions found in literature are identified and denounced with facts obtained through research and experience.

Myth 1: Career and Technical Education (CTE) is a new name for the same old vocational education that pigeon-holes students into a lower pay scale.

Truth: Each CTE program of study provides multiple pathways from which students can choose to build knowledge and skills. Students' limitations are only framed by their potentials (McCage

& Folkers, 2012). McCage and Folkers described the new CTE as providing pathways to high demand, high wage destinations.

Myth 2: CTE is just shop class. If students fail in an academic pathway, they take CTE.

Truth: High quality CTE has enormous potential to prepare students for college studies and high paying careers (Holzer, Linn, and Monthey, 2013). High school career centers prepare students for success in postsecondary education and in jobs. Students are taught academic and technical skills to be successful in both colleges and careers (Bottoms, 2012).

Myth 3: CTE programs provide students only with low-level technical skills that, at best, will get them low-paying jobs post high school.

Truth: CTE provides rigorous academic classwork that challenges students to make connections from classroom literacy and math to real-world applications. CTE students can succeed in college or enter the workforce with skills and confidence to succeed (Holzer et al.). Holzer et al. (2013) cited research which found that taking CTE coursework increased the high school completion rate by giving academic skills relevance. Griffith and Wade (2002) found that CTE completers earned greater salaries over a six-year study and were less likely to work in short-term or temporary positions.

Myth 4: Minority and lower socio-economic students remain especially wary of CTE for fear that these programs deter them away from higher education and high-wage career options.

Truth: CTE has the potential to improve educational outcomes for all students, especially the disadvantaged or minority students who otherwise may lack the adult support and reference that a CTE teacher and advisor provides (Holzer et al., 2013). Graduates completing a CTE program of study performed similarly on college outcomes as did students completing four-years of mostly academic studies (Griffith & Wade, 2002).

Myth 5: CTE is for the students who cannot be successful on the traditional route. Many drop-outs were once CTE students.

TRUTH: CTE can play a critical role in dropout prevention and recovery. High quality career and technical education can help more students persist in and complete high school by preparing them for postsecondary education and training that will be critical to future economic successes. CTE increases student engagement, builds positive relationships, and provides innovative instructional methods that require application of core academic knowledge (Holzer et al., 2013).

Foundation for the Study

Rosenbaum (2002) argued in a paper presented at Preparing America's Future: The High School Symposium that "high schools have a broader mission than college preparation, or even academic preparation. As the last societal institution attended by all youths, high schools must prepare all young people for productive careers" (p. 1). Six years later, ACT (2008) research echoed Rosenbaum's statement.

> Today, college readiness also means career readiness. While not every high school graduate plans to attend college, the majority of the fastest-growing jobs that require a high diploma, pay a salary above the poverty line for a family of four, and provide opportunities for career advancement, require knowledge and skills comparable to those expected of the first-year college student. (p. 1)

Thus, college ready is career ready. Traditional high school preparation where students try a little of several different elective courses does not bring a student's future career interests into focus. Without providing a clear program of study that carries the student beyond graduation, high school fails to adequately prepare students for life. Recent high school reform efforts have successfully linked career-oriented approaches and partnerships with colleges, employers, or

other community groups (MacIver & Farley, 2005). Work-based learning opportunities such as job-shadowing, internships, and co-operative education experiences have been shown to help high school students master necessary workforce skills and to apply classroom knowledge to real world settings (Castellano et al., 2003; MacIver & Farley, 2005;)

Researchers at Harvard Graduate School of Education who examined this issue stated that "the American system for preparing young people to lead productive and prosperous lives as adults is clearly badly broken. Millions of young adults now arrive at their mid-twenties without a college degree and/or a route to a viable job" (Symonds et al., 2011, p. 22). After more than twenty years of effort, and billions of dollars spent on improving the educational system, the authors of this Harvard study asked that readers give the situation an honest assessment. The traditional American educational system has consisted of academic instruction in a four-walled classroom with occasional and varying integration levels of technology. This age-old approach to preparing students for the 21st century has yielded minimal gains. The summative determination of success has been the number of graduates with a four-year college degree. Unfortunately, this American goal has only produced a 30% or less success rate. "'College for all' might be the mantra, but the hard reality is that fewer than one in three young people achieve the dream" (Symonds et al., 2011, p. 9).

In accordance with Rosenbaum and ACT, Symonds et al. (2011) proposed that one of the most basic responsibilities is to prepare students to live "productive and prosperous lives as adults" (p. 1). Educating them with strong skills in literacy, mathematics, and critical thinking skills is central to this commitment. America has led the world in this effort, yet now "there are profoundly troubling signs that the U.S. is now failing to meet its obligation to prepare millions of young adults" (Symonds et al., 2011, p. 1). Now more than ever educational attainment is

linked with economic success. Even though our goal as a nation has been for our youth to attain a four-year degree or better, we have failed to achieve this goal. Symonds (2012) estimated that less than one in three students graduate from college, whereas McKinsey and Company ("Detailed findings," 2009) suggested that the percentage of the world's college graduates went from 30% Americans in 2007 to 15% in 2008.

The Harvard study drew a dim picture on the effectiveness of the institution known as high school. The authors also advocated that high school pathways should directly link to workforce needs, community college programs, and four-year university career majors in order to provide career training and credentialing while in high school and to help those students complete college (Symonds et al., 2011). Carnevale, Rose, and Hanson (2012) reported that the number of certificates that have been earned has risen sharply by 800 percent over 30 years. They found that certificate holders earn about "twenty percent more than high school graduates without any postsecondary education…Certificate holders who work in field earn 37% more than those who work out of field" (p. 4). Steinberg, Almeida, and Allen (2003) contended that if students are to navigate the transition into the workforce as full participants, "they need access to a variety of high-quality, developmentally and culturally responsive learning options that individually and collectively improve and accelerate their transition" (p. 43).

Cheryl Carrier, Program Director, 21st Century Education Programs with Ford Motor Company Fund, stated that "by supporting education, we are making a critical investment in our future….Today, no issue is as important to a community's continued prosperity as education. So investing in education is the right thing….the smart thing to do" (National Career Pathways Network Center for Occupational Research and Development & Institute for a Competitive Workforce U.S. Chamber of Commerce, 2012, p. 2). Business and industry are the primary

consumers of the educational system. As such, any investment of time and resources in education is worth it all. To strengthen the pipeline of knowledgable and skilled workers, educators should encourage students to study in their interest area, which means they need to spend time exploring interest with students; create a ten-year plan with students that will carry them from high school to postsecondary study to work; strengthen CTE so that it provides a rigorous, academic/technical learning environment; restructure the junior and senior years of high school to include internships and dual-enrollment; and offer multiple career pathways. (National Career Pathways Network Center for Occupational Research and Development & Institute for a Competitive Workforce U.S. Chamber of Commerce, 2012)

"CTE is a rich American tradition that is distinct in its applied learning methods and teaching of field- and occupation –specific skills…CTE can provide

- Career exploration for all students;
- Programs of study that align with postsecondary programs as well as employer-based training;
- An alternative applied pedagogy that encourages persistence to high school graduation as well as academic development and stronger transitions to postsecondary education" (Carnevale, Jayasundera, & Hanson, 2012, p. 4).

The leaders in the school system where this study takes place began to ask what could be done to make a difference in students' life and their future. They looked to the Harvard Report, Pathways to Prosperity, for answers. Symonds et al. (2011) proposed three essential elements that any system should include in a long-term plan of action:

- The development of a broader vision of school reform that incorporates multiple pathways to carry young people from high school to adulthood

- The development of a new social compact between society and its young people
- The development of a much-expanded role for employers in supporting these new pathways (Symonds, Schwartz, & Ferguson, p. 23)

The three elements will be used as a framework to organize this review of literature. The elements were used as a framework for this literature review because they incorporate the present literature on high school reform, and frame the suggestions for action proposed by the Harvard researchers, which was also the direction of change that the school system chose to take.

A Broader Vision for School Reform

"Formal education is society's best available route to assure citizens' participation in the world of work" (Castellano, Stringfield, & Stone III, 2003, p. 239), and research provides evidence of the value of including career and technical education (CTE) in that education. For instance, Mane (1999) showed that secondary CTE students that chose not to go to college were positioned to obtain and retain steady employment with higher wages than the non-CTE students in the study. Griffith and Wade (2002) found that the CTE completers in their study earned more and were more likely to be in a permanent, high paying career as opposed to non-CTE program completers. Rosenbaum (2002) noted that students should learn not only technical skills through strong CTE programs in preparation for future careers, but also, essential skills such as critical thinking, work ethics, and anticipation of what employers expect of workers.

Symonds et al. (2011) challenged America's narrow focus on the four-year college pathway and argued that four year colleges should combine rigorous academics with CTE through multiple pathways for the majority of students who will not complete four years of college but will need additional skills and credentials beyond high school in order to become gainfully employed. Symonds et al. (2011) stated that

> One of the most fundamental obligations of any society is to prepare its adolescents and young adults to lead productive and prosperous lives as adults. This means preparing all young people with a solid enough foundation of literacy, numeracy, and thinking skills for responsible citizenship, career development, and lifelong learning (p. 1).

Their research concluded that our past "focus on college readiness alone does not equip young people with all of the skills and abilities they will need in the workplace, or to successfully complete the transition from adolescence to adulthood" (Symonds, Schwartz, & Ferguson, 2011, p. 4).

Researchers agreed that education and business sectors must work together to educate high school students with both applied skills and academic knowledge in order to prepare high school students to succeed in work and in life (Casner-Lotto & Barrington, 2006; Castellano et al., 2003; Chaves et al., 2004; Symonds et al., 2011). Bottoms (2012) wrote "improvement efforts should include – and often focus on – career/technical education (CTE) by upgrading programs, increasing rigor, and holding all students to higher standards" (p. 1). Castellano et al. (2003) found that there is traditionally separation between CTE and academic education in most things including reform measures. When smaller structures within the whole are chosen to reform, such as curriculum or organization, the partial attempts rarely result in complete school reform. CTE and college prep must be seen as preparation for all graduates and all parts to the whole comprehensive school reform process. Vocational and academic educators must successfully transition and work together, combining their expertise. Career preparation should include academic learning that links what students learn in core classes to the need for it in the world of work. Academic teachers should link their curriculum to the real world so that their subjects become obviously relevant and needed for life. Diminishing the divisions between

vocational and academic curriculum can reduce the status perception between students bound for career and college. Such efforts form the foundation of a solid academic education for all students while preparing them for work and adult life. (Bozick & Dalton, 2013; Castellano et al., 2003; Creech & Clouse, 2013; Kenny, Blustein, & Haase, 2006)

In a later study conducted for the National Research Center for Career and Technical Education at the University of Minnesota, Castellano, Stone, Stringfield, Farley-Ripple and Overman (2007) concluded that their research on CTE reform was ahead of its time because few high schools had truly embarked on the new CTE model of rigor and relevance. This study examined 37 studies, position papers, and articles to discover the effects of CTE efforts as a part of comprehesive secondary school reform. They concluded that the schools studied achieved no substantual gains in academic achievement, but neither did they suffer academically due to an increased focus in CTE courses and applied learning. Their results showed that across all schools, increasing participation in CTE programs decreased the drop out rates. More students who participated in the CTE comprehensive school reform models transitioned into related postsecondary pathways. Students can profit from the relevance of CTE studies, which offer a framework for academic studies and introduce career opportunities for students to pursue. CTE aids at-risk students in graduating by showing them they have a future and preparing them for it (Bottoms, 2012).

These suppositions are the basis for the case study. A traditional, or comprehensive, high school is most common in America's public high schools. It was created to serve the needs of all students with coursework from college prep courses for average and above students to remediation for students who struggle. Traditional or comprehensive high schools offer academic

coursework and career and technical education, along with the arts and athletics in order to provide a well-rounded education.

In 2006, Casner-Lotto and Barrington presented their study of workforce readiness of new employees as reported by over 400 American employers. The report found that the participating employers felt that K-12 schools have the responsibility for providing basic and applied skills to entry level employees. Less than 19% reported that workforce readiness is primarily their responsibility (p. 54). The research also pointed out that one way to share the responsibility is to work with schools to "develop more meaningful internships that provide students with actual learning experiences that develop needed workplace skills" instead of just providing a quick view of the corporate setting (p. 55). Shell Trading and Shipping was one company that was overall satisfied with their entry level employees. This positive view seems to be a result of their commitment to working with high schools and universities to design curriculum in programs and to structure internships that will prepare the students for work at their company. Casner-Lotto and Barrington (2006) recommended the following:

> All stakeholders (business, educators, and community members) should consider methods of enhancing important workplace skills. For example, internships, summer jobs, work-study programs, job shadowing, mentoring, on-the-job training, as well as other educational approaches that include real-world experiences or community involvement, provide opportunities for students to acquire basic knowledge and skills, while cultivating applied skills. (p. 58)

Carnevale and Rose (2011) analyzed wage and employment data that showed the United States "has been underproducing college-educated workers for decades" (p. 8). The lack of qualified workers has caused two marked problems: 1. America has failed to capitalize on the

productivity that people with higher degreed contributed to the economy; and 2. the salaries for postsecondary educated workers have been driven up, thus "exacerbating inequality" (p. 8). "The result is that as we lose our global lead position in percentage of the workforce with postsecondary credentials, we have become the global industrialized leader in income inequality" (p. 8). Carnevale and Rose recommended that the addition of twenty million postsecondary-educated workers (some college, Associate's and Bachelor's degrees) would meet the growing demand and boost "the gross domestic product (GDP) by $500 billion" (p. 8). Steinberg, Almeida, and Allen (2003) looked at the problem of high school graduates being unprepared for further education and/or the world-of-work. The authors contended that to fix the problem it will "require the creation of multiple pathways to the skills and credentials required for a smooth transition to a productive adulthood" (p. 30). In a review of high schools, they found that the school day should be "replete with engaging and purposeful learning opportunities," that there should be a focus to help students "develop civic, vocational, and social skills and to explore interests and passions that can lead them to a sense of purpose in their high school studies" and their post high school plans (p. 40). The authors acknowledged that high school marks the transition from adolescence to adulthood and that success will be determined by obtaining a family-supporting career. High school should not only aid students in solidifying academic, social and interpersonal skills, but also, in developing good work habits, exploring their career interests, and developing real-world decision-making skills (p. 29).

Stone, Alfeld and Pearson (2008) offered a potential solution for needed high school reform, "enhance career and technical education (CTE) courses with more rigorous, relevant mathematics" (p. 769). Owens and Smith (2000) showed that CTE courses naturally provide contexts for applied learning. While schools across the country have increased academic

coursework requirements and the time that students spend in remedial classes, National Assessment of Educational Progress assessments of mathematics depicted a flat growth trajectory over the past three decades (Perie & Moran, 2005), and high school graduation has been steadily declining (Swanson, 2004). Plank (2002) presented evidence that participation in CTE programs reduced dropout rates and prepared graduates for college and careers (Castellano et al., 2003; Mane, 1999).

Accumulated data suggested that through CTE, or curricula that apply to the real-world workforce, a solution for improving student achievement can finally be reality. When collaborating with any CTE teacher, inquirers found that mathematical and literacy concepts were embedded in their curriculum. CTE classes were viewed by students as more relevant to their futures. The math and reading accomplished in CTE courses apply the skills learned to real-world situations. Therefore, the combination of academic concepts applied to CTE knowledge and skills with focused reading and basic (work related) math instruction in CTE classes, yielded authentic and lasting learning. Students saw the relevance of their academic learning to their desired career through the application in high school CTE (Stern, Dayton, & Raby, 2000; Stone et al. 2008). Bozick and Dalton (2013) found that CTE courses did not increase or hinder overall math gains. However, when students took more CTE instead of additional academic classes their math gain did not go down.

When looking at drop-out data, students claimed that classes were boring and irrelevant to their reality. “The solution is to be found in contextual, applied teaching in which career education is integrated into the teaching of academic subjects. Educators should not focus on…how things work, but why” (National Career Pathways Network Center for Occupational

Research and Development & Institute for a Competitive Workforce U.S. Chamber of Commerce, 2012, p. 8).

Hull (2005) wrote that education had lost focus on its purpose. He looked at the fact that many students were not leaving with the knowledge and skills they needed to successfully traverse postsecondary and/or the workplace. He pointed to the high drop-out rate; the fact that about 33% of college freshmen required remediation in reading, writing or math – or all three; and that less than half of high school seniors reported that they were in challenging classes. Hull claimed that we are "treating the symptoms" (p. 6) and instead needed to invest efforts into six systemic changes:

- Guide students in selecting an interest area that adds purpose to their education – athletics, band, arts, or career paths.
- Provide career guidance for each freshman in creating a four-to-ten year plan that is updated and implemented each year.
- Provide an engaging learning environment, or context, for rigorous and relevant learning.
- Restructure curriculum to include interest area, the guidance plan, the context, and standards.
- Facilitate a smooth transition into postsecondary training of some form, which could include dual-enrollment and industry certification.
- Restructure high schools into smaller learning communities (such as career academies) (Hull, p. 7).

Meeder and Couch (2005) supported Hull's claim by pointing out that many high school graduates earned a diploma but lacked the knowledge and skills necessary for college or career. Meeder and Couch also warned against "teaching to the test" because it precluded "real

understanding and analysis" (p. 34). The authors looked to CTE as a place for contextual learning and interest engagement, but cautioned not to turn CTE into narrow paths of study that train for specific job skills. "Training for the job" is as short-sided as "teaching to the test" and does not instill in students the ability to be lifelong learners who easily adapt to the changing job market. Meeder and Couch emphasized the wisdom in preparing students for college and career and in increasing the number of students who persist in college to degrees or certificates and move on to employment. In 2013, it seemed that American education began to move in the direction proposed by Meeder and Couch in 2005. This researcher would include Alabama's Plan 2020 as an example of that shift.

Meeder and Couch (2005) discussed the achievement gap seen among students in low socio-economic and special education subgroups. They explored closing the ambition gap that is crippling American students. A false sense of entitlement was noted as rabid in our youth who are living immersed in technology and succumbing to "entertainment and consumerism" (p.46). The authors recommended that in order to prepare the young people of today to compete in the global economy, students must learn deeply about world history and the global and Asian economies, because it is likely that their future competition will come from this area of the world. Students need to thrive in entrepreneurial concepts such as creativity, innovation, and entrepreneurship, while learning to be ambitious, hard-working, honest leaders.

Career Academies Research

Stern et al. (2000) explained that career academies were created in response to some of the problems that afflicted comprehensive high schools. The first academy, established in Philadelphia in 1969, focused on dropout prevention and prepared at-risk students for transition into work. It was an electrical academy established at Edison High School and sponsored by the

Philadelphia Electric Company. As the academy concept grew in Philadelphia, nonprofit supporters came together in 1982 and created the Philadelphia Academies, Inc., which is still in operation today. "Although the Philadelphia academies began as vocational training programs, today they send most of their graduates to college" (p. 10).

Kemple and Snipes (2000) defined a career academy as a smaller learning community usually in a large high school, which offered a personalized and supportive learning environment that combined academic and career-related instruction with increased rigor and relevance to the real world. Career academies are known for the partnerships with local business and industry that are formed to develop students' exposure to career opportunities and skills requirements and to provide them with on-the-job learning experiences. "The primary goals of the career academy approach are to enhance students' engagement and performance in high school and provide them with the credentials and skills needed to make successful transitions to post-secondary education and, eventually, a career" (Kemple & Snipes, 2000, p. 1). Some students do not learn well in traditional high schools. Kemple and Snipes (2000) defined career academies as smaller schools within schools that connect students with other students, teachers, and community partners in a structured setting, fostering academic, character, and workforce development. Career academies provide a smaller learning setting where students can belong, be known to others, and connect what they learn in school with their interests and their career aspirations. The researchers also stated that career academies have reduced dropout rates, sent more students to college, and prepared them to reach their professional goals.

The Manpower Demonstration Research Corporation (MDRC) has been a major sponsor of research on career academies. Stern, Dayton and Raby (2010) reported that this research has focused on ten career academies since 1993. It was the only career academy research found that

randomly assigned students to academies and control groups. MDRC began by generating a list of students who signed up for each of the ten academies studied, and then, randomly chose those who would become part of each academy (the experimental group) and those who would not (the control group). This control group was unlike the ones in other academy research because they were interested in joining an academy and had taken the initiative to apply to one. Whereas other studies could not measure the motivation or ambition that characterized students that became a member of a career academy verses those who did not, all students in the MDRC study shared the unmeasured traits. This has been the explanation as to why the MDRC study found no statistically significant differences in high school graduation or higher education attainment between the academy and the control groups.

MDRC reported that academy students earned a greater number of high school course credits, and were more likely to report having positive work-related developmental experiences. In the MDRC career academy study, the most prevalent differences were found among the students at-risk for failure. Students in this subgroup had higher attendance rates, earned more credits, were very likely to participate in extracurricular activities and service projects, and were less likely to get into trouble or be arrested. The reported dropout rate was lower in the academy group as compared to the control group (Kemple & Snipes, 2000).

The longitudinal MDRC study found sustained and statistically significant variances in labor market outcomes for the academy completers. During the eight years that followed graduation, the academy graduates had greater earnings than the control students – eleven percent higher, on average, and seventeen percent higher for male academy students. Previous findings suggest that academies provided more opportunities for career exploration, applied

skills development, and work-based learning that may contribute to these gains for academy students in the workforce (Stern et al., 2010).

A troubling issue raised by the MDRC study for educators was that if career academies did not raise test scores for academy students then why spend so much time and effort on them? The long-range benefits of increased engagement and higher graduation rates for academy participants, in addition to the additional earnings in the work force, surpassed the equivalent achievement on test scores. Career academy research studies have shown that the additional focus on careers did not lead to decreased or significantly increased achievement on test scores over the control group (Stern et al., 2010). It is argued that the longterm benefits mean more to college and career readiness for students---indeed their readiness for life.

The culture of trust, support and encouragement that developed within academies and with workforce mentors emerged as another positive return on career academy investments. Students reported that the relationships that they had with adults within their academies strengthened their self-confidence and ambition to achieve. Although college aspirations were rarely mentioned as an academy benefit by students it was found that confidence in themselves seemed to launch participants into further studies and better careers (Kemple & Snipes, 2000; Stern, 2003; Stern et al., 2010).

Research by Linnehan (1996) indicated that the traditional outcomes of grades and attendance effected postsecondary outcomes of performance and attendance. In his research on the career academy model, he asserted that work-related opportunities and focus on school attendance had a positive effect on work-attendance and performance. High school performance in work-based learning experiences and growth in soft skills were shown to be predictors of future work readiness.

Kemple and Snipes (2000) in a key report on the MDRC ten-year evaluation on career academies indicated the effectiveness of career academies on the students they serve. This study followed 1,700 students from eighth or ninth grades when they signed up for the academies through their twelfth grade year. The study highlighted student participation in career awareness and work-based activities such as internships, apprenticeships, job-shadowing etc. A greater level of interpersonal support for students in academies verses non-academy students was found. Academies also reduced dropout rates, improved attendance, increased course credits, and overall student engagement in their studies (Kemple & Snipes, 2000; Linnehan, 1996; Mekinda, 2012; Stern et al., 2000).

Kemple and Willner (2008) reported on the same students eight years after graduation. This portion of the study looked at the long-term effects of career academies on the graduates as they related to transition into adulthood focusing on their work experience, education attainment, and family. The author suggested that the career academies produced sustained earning gains an average of 11% overall, and 17% for the young men. The findings established the feasibility of cultivating labor market preparation in students without compromising academic preparation for college. Investment in career educational experiences in high school can yield significant and sustained advances in labor market opportunities for graduates when they enter the workforce. Kemple's work found career academies to be one of the few interventions to increase the labor market prospects of young men. They also showed positive effects, eight years after graduation, to increase family stability.

Symonds et al. (2011) also wrote on the promise of career academies to high school reform. The career academy movement is diverse and growing. Since the first career academy began in Philadelphia in 1969, the number of such academies has flourished to over 7,000

serving about one million teenagers in tenth through twelfth grades. Academies combine a college-prep curriculum with a career theme focus and are comprised of a rich variety of supports provided by local industry partnerships including curriculum advising, mentoring, and work-based learning opportunities (Mekinda, 2012). Career academies exemplify what many high school reformers envisioned for student learning. They are designed to bring the rigor needed for success in postsecondary education and the application of new knowledge and essential skills to work opportunities. Through the combined focus of academies, students were better prepared for life beyond high school. Often, academic performance improved as career readiness develops. This attention to academic rigor and career relevance within a secondary experience improved chances of higher education completion because students were able to relate classroom learning to their career futures (Stern, 2003).

Foreign CTE – Lessons to Learn

TAFE (Technical and Further Education) is the leading public vocational education and training schools in Australia. In New South Wales (NSW), it serves over 460,000 Australian students and over 4,000 international students in over 130 centers. TAFE works closely with the workforce to ensure the programs graduate students prepared for high-demand, high-wage jobs (Virginia Elliott, School Development Officer, personal communication, June 4, 2012).

Australians seem to believe that no matter the career pathway, education can make a difference (Welch, 2007). They have structured their education system to allow easy and seamless access for students to journey from kindergarten to tertiary colleges before leaving for work or universities. Students take Vocational Education Training (VET) courses at their high school which articulate to TAFE tertiary centers. Students can attend their local TAFE, or any center within their region in order to follow their interests. TAFE centers are known for the two-

and three-year certifications that they offer students; however, many have begun to offer four-year bachelor degrees (personal communication, June 13, 2012). TAFE is often the launching pad for students into careers, but they sometimes complete TAFE training and then go into university to learn theory and attain a higher degree. According to VET Team Leader Wendy Winton (personal communication, June 13, 2012), a considerable number of students are now graduating from university and then attending TAFE to get knowledge and skills to go with the theory based education. "This additional hands-on study is what our local employers are looking for in their entry level employees" (W. Winton, personal communication, June 13, 2012).

Within the ten regions of NSW, there are over 130 TAFE centers. They follow the same standards and guidelines for curriculum and learning, and receive government funding for students. "This means that if a student elects to go to TAFE in high school for two classes per day, the largest percent of the government funding for that student would stay with the high school, but two parts would go to the TAFE center where the career and technical education classes take place, which is a loss to the high school" (M. Siokos, Moorefield Girls School principal, personal communication, June 5, 2012).

In 1975, the Australian government established the Technical and Further Education (TAFE) system to concentrate on vocational education in Australia. TAFE began to act as the colleges of advanced education offering certifications and diplomas for their graduates. By 1988, the Australian Government moved to "create a unified national system of higher education" dissolving the divisions between colleges of advanced education and universities (Edwards, 2011, p.49). International university procedures were developed for Australian higher education, and universities began to focus on postgraduate programs and research. As they withdrew from offering diplomas, VET institutes, which include TAFE, increased their diploma offerings. By

2006, over 90% of the students who were registered in studies for a diploma, or an advanced diploma, were enrolled in VET and TAFE institutions. (Edwards, 2011). Figgis (1998) noted that with the rapidly growing role of vocational education which requires students to develop specific skills that require workplace environments to learn and practice, structured work placements have been developed and implemented in Australia to aid students to master the required industry standard competencies.

In other countries such as Finland, Denmark, Germany, Norway, and Switzerland, 40% to 70% of upper high school students participate in vocational education and workplace training (VET) (Symonds et al. 2011). Symonds et al. noted that these studies culminate in qualifications which mean something in the labor market. Although each has a well-developed system of vocational education, none are exactly the same. Finland, often celebrated as leading the world in education, has at least half of its upper secondary students enrolled in the vocational track which prepares them for careers in the decidedly advanced Finnish economy. Germany and Switzerland offer dual apprenticeship models where students spend up to three days a week at work and the other two days at school in academic pursuits (Symonds, 2012).

Collective Responsibility for Education and Workforce Development

A challenge confronting K-12 education is to ensure that within the course of elementary and secondary education students receive opportunities to make informed selections about future careers and to attain the ability to transition into those careers (Watters, Hay, Dempster, & Pillay, 2013). Upon graduation, if the pre-K-12 system had accomplished its goals, students were college and career ready. Meaning that the education received prepared them for their next step into postsecondary education or full-time work experience (Holzer, Linn, & Monthey, 2013). Hogner and Kenworthy (2010) realized that educating students to collaborate and solve complex

municipal challenges is increasingly difficult and demanded more from teachers than their knowledge and experience alone. Schools do not possess the resources or money necessary to develop and sustain the education-to-work pipeline. Partnerships must be built throughout local communities to train and employ students into rewarding careers. Public, private, and industry engagement must have occurred at multiple levels to shape effective partnerships. These partnerships bring to education elements that are new and now necessary to prepare students for their futures (e.g. work study programs, internships, mentors, community engagement projects, relevance for academic learning) (Albrecht & Hinckley, 2012; Hogner & Kenworthy).

Instead of existing separately from one another, CTE must be seen as an equal partner of the academic core in high school. High quality CTE includes the program classroom, internships, and workforce opportunities. The silos in education that disconnect CTE from a traditional education must be removed. No longer can an educational pathway assign students to a track of learning that prepares them only for a single career. Critical to the success of education that prepares students for college and career is the involvement of local and state industry (Holzer et al., 2013).

It is the responsibility of both the schools and the supporting industries to ensure that CTE programs are high quality and provide rigorous curricula. In doing so, CTE programs not only instill industry skills and standards, but also, play a crucial role in guaranteeing that students achieve state academic standards. It is the contextualized learning that occurs in CTE that distinguishes them from traditional classes. This is when academic knowledge and skills are presented in the context of projects or workforce learning. Research shows that "contextualized learning generates more motivation to study, a better understanding of traditional academic

context, and more successful pedagogy, especially for students who have been less successful in traditional classrooms" (Holzer et al., 2013, p. 10).

An integral part of high school success is career guidance. However, Mekinda (2012) recommended that an aligned system of career exploration and guidance should occur throughout a child's education. Assistance with college and job searches, visits, and applications was identified as critical for older students. Mekinda also warned that career guidance should not occur at the expense of academic preparation, but in tandem through a rigorous academic, career-focused curriculum. Career guidance should aid students in selecting a pathway of study in high school that prepares them for college and career and all the decisions along the way (Holzer et al., 2013). Harris-Bowlsbey and McPherson (2012) asserted that career education is a life-long exploration of self and one's purpose in life and potential in the world of work. The educational guidance system should be a team of adults at all levels of a child's life that includes teachers, administrators, parents, and employer mentors, led by a counselor. Working together, the guidance team should help students find their interests, strengths and passions by following a plan of study that prepares them academically and technically for high demand, high wage careers. "Career development is a lifelong process in which an individual defines and refines life and work roles" (Harris-Bowlsbey & McPherson, 2012, p. 278).

Research from the National Career Pathways Network (2012) suggested that career pathways:

- graduate more students from high school
- increase enrollment in dual-enrollment and postsecondary programs
- aid high school students in making more informed career choices
- increase qualification in the workforce

- increase results on academic and CTE tests
- grow the number of educational partnerships

(National Career Pathways Network Center for Occupational Research and Development & Institute for a Competitive Workforce U.S. Chamber of Commerce, 2012).

Although educators, career counselors, and the career pathways have moved students toward prosperity, employers have an increased role to play in student success.

Development of a Much-Expanded Role for Employers in Educational Partnerships

Research has shown that students need more than the traditional academic instruction to prosper in school and in life. Increasingly, schools have been entrusted with the responsibility of preparing students for success in the workforce, motivating democratic citizenship, and community service. (Newmann, Secada, & Wehlage, 2007; Scales, et al., 2005) Partnerships with community entities began to grow in the 1990s due to research and the School-to-Work Opportunities Act (1994). Scales et al. reported that there are hundreds of thousands educational partnerships across our nation to promote student success, and the most common partners are businesses. Until recently, most of these partnerships centered their support of schools on simple projects and goals rather than the total promotion of student development. Educational partnerships have moved past limited interactions with schools and students to employees giving of their time and experience to build relationships as mentors with students and instill in them work ethics, responsibility and other developmental strengths. In their research, Scales et al. found that students with higher levels of contact with business partners experienced higher levels of skills and opportunities that reportedly built strength in character, knowledge and work skills. The same students reported a decrease in risk-behaviors and increased study-behaviors and school achievement.

In an effort to find out if businesses that hosted structured work placements for high school students actually accrued benefits from the partnership they had with neighboring schools, fifty-nine companies were contacted by telephone and asked to complete a telephone survey. Five of those companies became case studies to represent specific costs and benefits of their educational partnerships. The researchers reported that initially the businesses saw their partnership as an investment in the students that they did not expect return upon. As they talked through the survey, they were surprised to realize the far-reaching investments that they were actually making in their own future. The companies' investments were catalogued into the following six principle categories:

- Productivity: Student trainees freed employees to do other tasks, while they completed necessary jobs. Students surprisingly contributed new and useful ideas.
- Enhancement of the company's skill base: Employees rethought their responsibilities when trying to teach them, and usually worked more energetically. The supervisors reported a change in the work culture that seemed more learning oriented where work practices were improved. Student placement also caused an internal assessment of procedures and often positive changes occurred.
- Recruitment was more efficient and effective: Companies got to know the students and viewed their work ethic firsthand. They got the opportunity to invest in their future workforce and provide entry-level training which cuts down on 'on-the-job' training costs.
- Community recognition: The investment in local young people was good public relations for the participating company.
- Personal satisfaction: It was the one benefit necessary for all the others to occur.

- The bottom line: The companies in the study had not calculated their costs or their benefits accrued through the structured work placements. They believed that the experience profited the company. The benefits mentioned before directly influenced the bottom line as do family and friends of students and teachers that come to them for the services they render simply through word of mouth (Figgis, 1998).

As Figgis (1998) described in her research, educational partnerships are about benefits to all involved. Schools were after the knowledge and skills training that made students more competitive and marketable after graduation. Workforce experiences offered additional interested adults for students that helped to provide relevance for the classroom learning that took place inside of schools and added a real-world laboratory in which to apply knowledge and skills. Businesses received a variety of benefits when they hosted student learners including investment in the future workforce and development of a stronger, more energized learning culture in which employees take greater pride in their work.

Partnership From the Secondary Point of View

Business and industry involvement in education has been a win-win partnership. Industry partnerships provided learning experiences for students that schools alone could not provide. Guest speakers, mentors, job shadowing, field trips, internships, work-related scenerios, and problem-based learning activities brought relevance from the world of work into secondary studies (Albrecht & Hinckley, 2012; Castellano et al., 2003; Holzer et al., 2013). When partners worked with teachers to build lessons infused with problem-solving, critical thinking, authentic situational issues, students moved closer to career understanding and readiness. Communication, teamwork, and systems thinking skills are developed. Through this collaboration, program instruction was enhanced and learning results were magnified. Career and technical education

develops skilled workers for the workforce; both students and employers benefit (Holzer et al., 2013). Watters et al. (2013) underscored the need for industry involvement into curriculum and daily lessons due to the fact that workplace skills are continually changing and the traditional model of curriculum development involving only university and teacher expertise is becoming less relevant. Another benefit provided by industry partners is the collaboration and advisement provided on CTE program advisory committees. Members provided labor market insight, economic analysis, job placement services, and advice (Albrecht & Hinckley, 2012).

Carnevale et al. (2012) reported that to advance CTE and better prepare our students for college studies or career choices, education should

- Establish a Learning & Earning Exchange that can bring transparency to the relationship between CTE and the labor market and
- Link high school instruction and postsecondary CTE by investing in specific CTE programs of study that integrate high school and postsecondary curriculums with employer-based training (Carnevale et al., p. 8).

Harwell and Atkinson (2005) alleged that career pathways are the best reform method to increase student achievement for secondary and postsecondary education. Along with a focus on career pathways, regular and ongoing professional development for teachers and rigorous academic standards must be implemented. Pathways of study provide guidance to students in their interest areas. They provide a smooth transition to postsecondary pathways.

Research at all levels has encouraged state legislatures to invest in CTE and to upgrade and enhance present offerings at the secondary level. The Alabama State Legislature passed a $50 million bond in 2013 to improve CTE equipment for all existing programs. A part of the Act was to also provide $20 million dollars in innovative grants to expand existing programs or to

start innovative programs that met a workforce development need in the local workforce regions. Such action is rare in an era where states are cutting educational funding. (Holzer et al., 2013, p. 15) The state of Alabama is to be commended.

Effective partnerships help employers with everyday challenges in the work enviroment. Researchers agree that building specific skills into the high school CTE curriculum and increasing the number of trained graduates are key benefits of partnering with education. Specific training can occur in work-based experiences. Technical and academic skills may be sufficient to get an applicant hired, but it is the employability (essential) skills that are necessary to stay employed and advance. Addressing poor employability skills can be accomplished in high school prior to hiring employees. Identifying workforce needs and working together to address them beginning at the high school level increases worker productivity and strengthens the available manpower (Albrecht & Hinckly, 2012; Holzer et al., 2013). Schools that partner with employers can benefit by anticipating emerging career fields and technologies. They can expand or restructure existing programs to prepare for future workforce needs (Bottoms, 2012).

Collaboration with business and industry holds obvious benefits for all involved and the concept has been discussed and aspired to for years. Education, at all levels, possesses partners who donate resources---equipment such as t-shirts, pens, or gift certificates---for incentives (Barnett et al., 2010), or products such as soft drinks or chips for regular consessions. Employees from local businesses often volunteer as speakers to classrooms, or as members on school improvement, leadership, and advisory committees. Many companies reach out to schools to donate office furniture or computers when upgrading their own. A well-known education-business initiative is the ‘adopt-a-school’ program where regular resources are provided for the selected school (Albrecht & Hinckly, 2012; Barnett et al.; Holzer et al., 2013).

Schools have accessed professional development for their teachers and directed assistance for students and families through partnerships. Much that has occurred through school and university collaboration is in an effort to find better ways to prepare future and practicing teachers. Schools have also obtained social and health care services for their students from university and community programs. (Barnett et al., 2010) Career and technical teachers have received regular industry awareness and training from local industry and college professionals. Albrecht and Hinckly (2012) suggested that summer externships, where CTE teachers work in or shadow employees within a company for extended periods of time, offer workplace experience that can significantly enhance the effectiveness of instruction.

Barnett et al. (2010) suggested that partnerships between education and other organizations "are viewed so positively that they appear as mandates in federal statutes, such as the Higher Education Act of 1998 and the re-authorization of the Elementary and Secondary Education Act" (p. 11) and the Carl D. Perkins Career and Technical Education Act of 2006. The authors further stated that with all the activity around partnerships it could be perceived that the making of them is simple, however, it is not. Nor does partnership mean the same or look the same from one to another. "As prominent as partnerships have become, creating and sustaining them is new, complex, and important work for most educators" (Barnett et al., p. 11). Generally, education and business, university, or community partnerships "are becoming part of the national trend, one that places a high premium on the coordination of services by different groups for the education and welfare of our nation's youth" (Barnett et al., p. 14).

Barnett et al. (2010) presented partnership structure as a progression of involvement between the organizations. This involvement ranges from simple and autonomous to complex and interdependent with identifiable linkages from contracts to the creation of a joint system

between the organizations. Barnett et al. believed that it is hard for a partnership model to portray all that partnership encompasses. They described partnership development in three parts. The first facet of partnership development is the level of involvement into the process that all partners give. The level of involvement begins with simple support, then, moves to cooperation to achieve goals and shared decision making. The final level of involvement is more complex and is identified by true collaboration between the partners. The second facet of partnership development that was discussed by Barnett et al. was the structure of the partnership, starting with the simple, moving to moderately complex, and finally complex and intertwined. The third and final aspect of partnership development is the level of impact---how does the partnership change the process or the program? The impact is conceptualized as a hierarchy moving from simple results, internal training or special services to changes is management and leadership procedures, then 'systemic educational improvement, and policy formation" (p. 16).

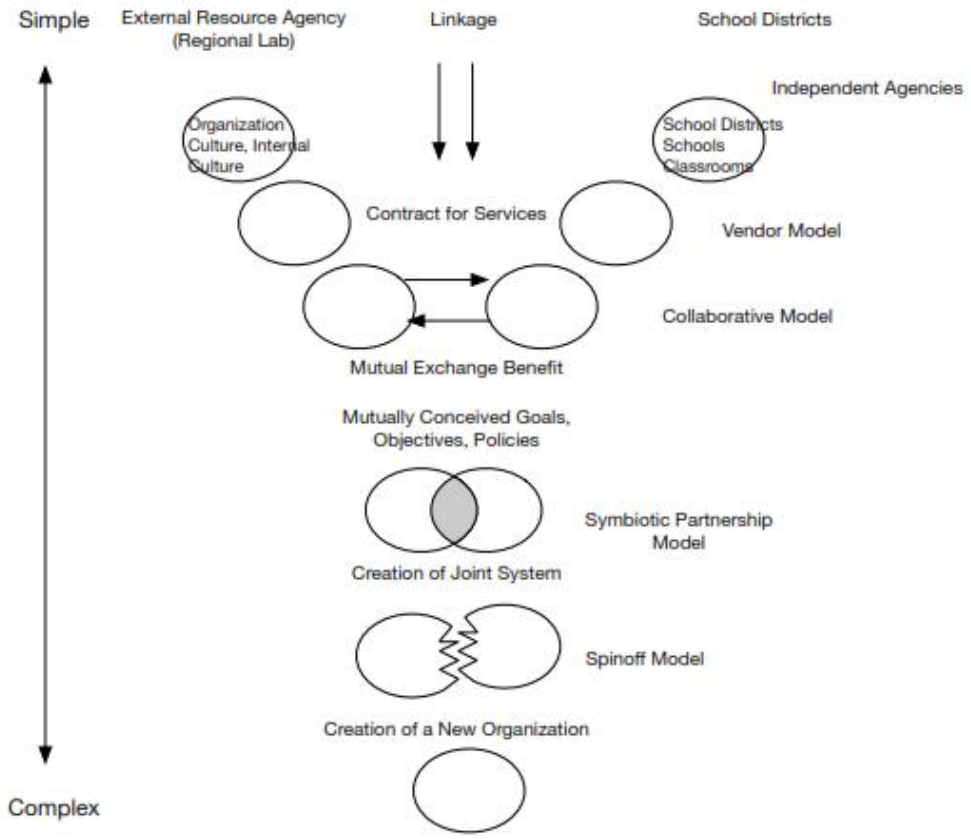

Figure 1. Adapted from the conceptual framework proposed in "A typology of partnerships for promoting innovation," by B. G. Barnett, G. E. Hall, J. H. Berg, & M. M. Camarena, 2010, *Journal of School Leadership, 20*, p. 23.

Conclusion

In response to research, the leadership in the Ozark City Schools, the school system where the research took place, began to look deeper into the success of career academies and to seek a local industry that would make learning more meaningful and relevant for students at Carroll High School. Leaders felt that contextual learning was the best reform for high school success. Active learning, context for the new skills being taught, seemed to be the answer to carrying the new knowledge to memory that had been previously lacking.

The high school has embraced career academies and houses six career academies in grades ten through twelve, plus it has a ninth grade academy where student interests and career opportunities are explored. The case study showcased the partnership between the business academy and Alabama Power Company to form the pilot Alabama Power Business Academy. The study examined how an educational partnership influenced factors affecting student learning outcomes such as curriculum and authentic learning for the students.

A newly defined goal of the academy, which was formulated through the partnership studied, was to redefine curriculum, teaching and learning, community resources, and the confines of time in radically different ways to address the knowledge and skills and intellectual growth of students while engaging them in a relevant learning environment. The nature of the learning experience changed due to the amount of outside resources used to foster students' college and career readiness development. The school environment became permeable as students pursued their interests through projects in work-related and college-like settings.

The high school has defined career pathways with some work-related experiences in each as Hull (2005) encouraged. Each CTE program has an active advisory committee made up of business and industry partners who speak to and mentor students and host field trips, job-shadowing and internships as recommended by Castellano et al. (2003) and required by Alabama CTE. The Alabama Power Business Academy pilot became the most extensive and collaborative partnership within any of the academies.

The level to which career academies are implemented with fidelity, academic rigor, and relevance to the work place makes the difference in the success of student learning, which is the ultimate goal of education (Holzer et al., 2013).

CHAPTER 3 METHODOLOGY

Research Design

A case study approach was utilized to detail the planning and year one implementation of an educational partnership between a high school that has redefined itself into wall-to-wall career academies and a local industry, The Alabama Power Company. The study examined how a partnership influenced factors affecting student learning outcomes such as curriculum and authentic learning for the students. A case study design was used as the researcher wished to examine the educational partnership in its natural setting, the high school academy, through the participants' insights, stories, and interactions with one another throughout the implementation year. Creswell (2007) noted that case study is an appropriate model when one seeks to understand the context in the way that it was examined in this study.

Researchers have concluded that a case is bound by its environment and cannot be studied devoid of its context (Creswell, 2007; Miles & Huberman, 1984). Wilson and Gudmundsdottir (1987) upheld that "the definition of a case is as much a product of the research as it is a predetermined construct" (p. 44). They also purposed "that a considerable portion of the researcher's interpretative energies throughout the stages of research design, data collection and analysis, and case writing are directed at answering the question: 'What is this a case of?'" (p. 44). This study is a case of a career-themed academy developed and supported by an educational partnership. Each academy at the high school hosts many partnerships with higher education and local industry. Surprisingly, no two partnerships are the same, nor do they function the same, even though many of their goals are the same. The partnership studied was formed to support a career academy that prepares students for college and career while also preparing the future workforce.

Whittemore et al. (2001) stressed the importance of providing rigor and validity in qualitative research. However, applying the same meanings to the words and overemphasizing the scientific method in qualitative research can threaten the sensitivity to meaning and lessen the portrayal of the human experience, ideals for which qualitative research are most used (Whittemore et al.). They wrote that "[q]ualitative research is contextual and subjective versus generalizable and objective" (p.524). Through their research they found that the way to assure validity is by interweaving it into the whole process of research paying close attention to validity criteria and employing techniques for developing them. Whittemore et al. describe criteria as "the standards to be upheld as ideals in qualitative research," (p. 528) and techniques as the practices employed to reduce threats to validity.

In qualitative research, validity refers to the findings being true and certain (Whittemore, Chase, & Mandle, 2001). The findings must correctly reflect the situation while being supported by the evidence. Lincoln and Guba (1991) maintained that naturalistic research, such as in a case study, should be credible, transferable and dependable. In order to validate the criteria of completeness, significance, and voice in the design consideration, I developed a self-conscious research design, implemented purposive sampling, and employed Appreciative Inquiry, which in turn gave the participants in this study voice. The research design was a qualitative, descriptive case study in its natural setting. Purposive sampling was used in order to gain insight and understand an educational partnership. As recommended by Merriam (2009), the sample needs to be the group from which the most can be learned. The researcher was the primary instrument of the research (Merriam, 2009), specifically in data collection and analysis, and in responsiveness to the context and the participants. As researcher, I identified my prior beliefs about the topic of the study and evaluated any conclusion that I drew by them. This quality of awareness was not

something to suppress, but provided technical knowledge and background experiences that provided insight into the phenomenon under study.

The researcher was the primary instrument in generating the data (Xu & Storr, 2012). A variety of data, i.e. formal interview transcripts, informal discussion notes, original documents, meeting minutes, and observational data, were collected to assure that the context and culture of the study was understood as triangulated between a variety of sources, i.e. students, teachers, business partners and administrators. The triangulation of a variety of data sources and of methods also provided contextual credibility.

Purpose of Study

The purpose of this study was to examine the influence of an industry partnership on establishing a career academy and its participants. This study details the work between the school and industry partners to provide an education that is focused on providing relevance and increasing rigor to better prepare students for college, career, and life. A framework for educational partnerships was reviewed through the lens of this case and a more descriptive framework resulted. This study will also add depth and knowledge to the research on career academies providing clarity to the value of school partnerships with industry.

Community and School Demographics

The study occurred in an academy in a 6A high school in a small rural, southern city with a population of 14,901 (2012 United States Census). The demographics of the city's population were reported in the census in 2012 as 48% male and 52% female; 65% white, 30% black, 3% Hispanic, and 1% other.

The Ozark City School System has five schools, a shared time secondary career center that serves five high schools from three school systems, and an accelerated learning center. The enrollment and grade levels served in each school are listed in Table 1.

Table 1

Ozark City Schools Enrollment by School

School	Carroll High	Smith Middle	Mixon Elementary	Lisenby Elementary	Thompkins Early Childhood Center	Total
Enrollment	741	539	520	292	161	2,253
Grade Levels	9-12	6-8	1-5	1-5	K	

Study Population

The partnership that grew between the Ozark City School System and Alabama Power Company was the focus of this research. The Alabama Power Business Academy was the reason for the partnership. Academy participants included in the population:

- 110 Academy Students
- 8 Academy Teachers
- 1 School Administrator
- 2 System Administrators
- 2 Business Partner Administrators, plus numerous participating employees as mentors

Figure 2 illustrates the total number of students in the academy population who are male and female.

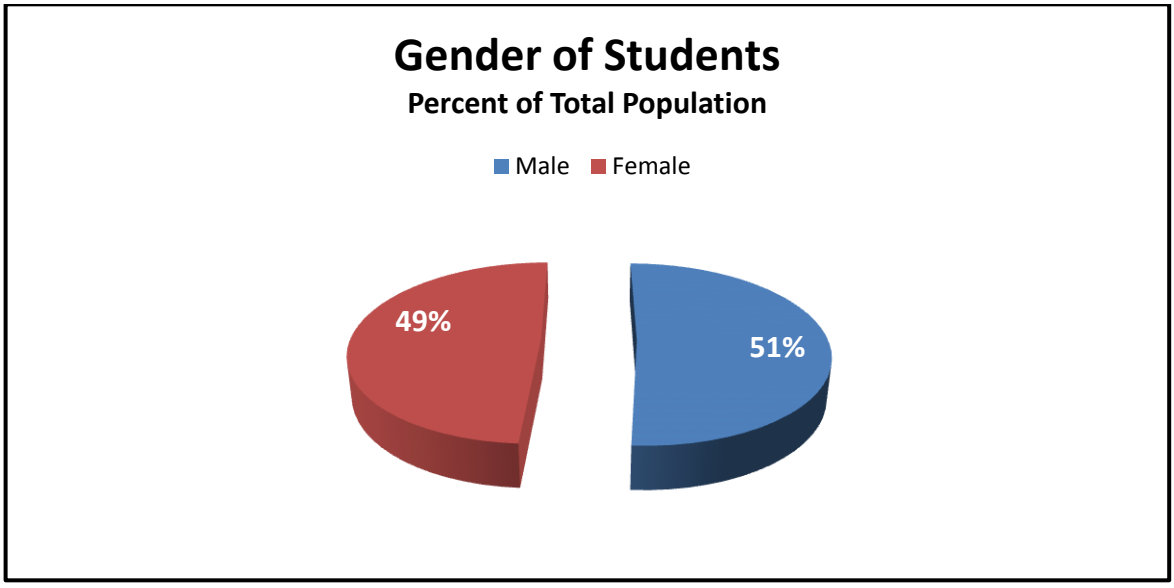

Figure 2. Male and female representation of total business academy population

Figure 3 shows the ethnicities of students in the total academy population. Ethnicities in the study include Asian, Black, Hispanic, and White.

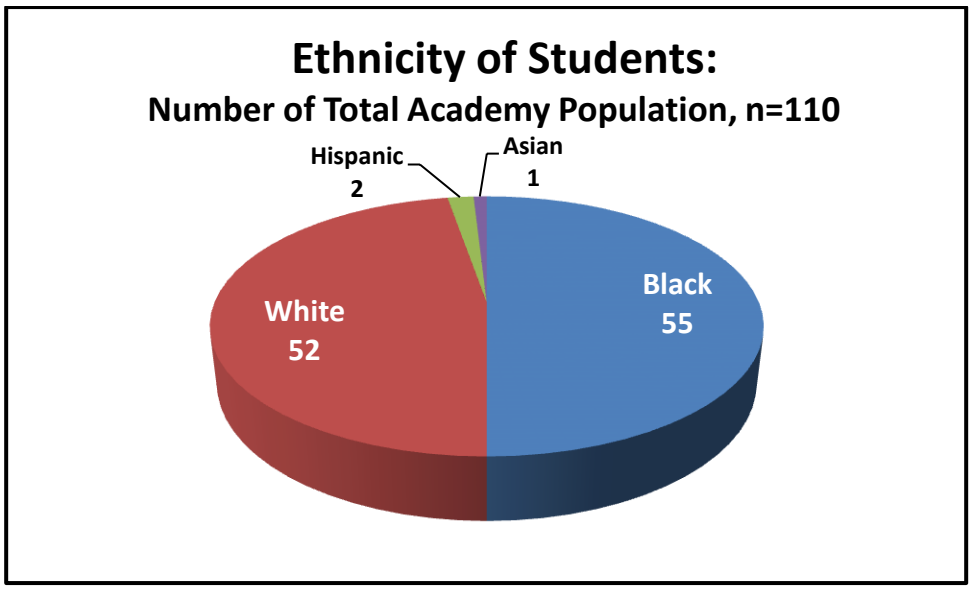

Figure 3. Ethnic representation of total academy population.

An Introduction to Appreciative Inquiry

The researcher chose to use Appreciative Inquiry (AI) as a research tool and focused on what worked in the partnership rather than try to identify a problem to fix. Appreciative Inquiry led the researcher to take "an affirmative approach for evaluating and envisioning future initiatives based on best practice" (Shuayb, Sharp, Judkins, & Hetherington, 2009, p. 2). Michael (2005) related that AI was founded on the heliotropic principle which states that "plants grow towards their source of light. It believes that, in the same way, people and organisations move towards what gives them light" (p. 222). Thus people will be drawn to the positives in life and move toward positive images of the future (Cooperrider, Whitney, & Stavros, 2008). Appreciative Inquiry created an environment where participants could speak openly about their experiences without an implied expectation to defend or justify bad experiences. Michael reported that her interviewees seemed eager to tell their stories, which were comprehensive, dynamic, and unrehearsed.

Using AI and the qualitative methods of interview, document review, and participant observation, the researcher sought to understand the factors that influenced the participation in the Alabama Power Business Academy; to highlight the elements that served as facilitators of success in the partnership; and to determine the benefits of participation in the academy on all the participants and on their institutions. The research focused on the experiences and perceptions of the academy participants through the interviews and the observations.

Research Questions

The research questions were designed using the language of Appreciative Inquiry. Shuayb et al. (2009) suggested that questions be written to strengthen the educational

partnership's "capacity to identify, anticipate, and heighten positive potential" (p. 4). Four research questions guided this study:

1. What elements served to facilitate the creation and implementation of the partnership?
2. What were the perceived benefits to participants and the organizations involved?
3. How might the partnership be improved?
4. How can the educational partnership be described as a conceptual framework?

There are no questions related to barriers or challenges. Although not a part of the questions, negative issues surfaced from the conversations. When they did, the researcher listened carefully, took notes, and responded with a positive probing question, i.e. What would have been a better way? How could that have been changed into a positive? Ultimately, the negative issues were reported when they addressed the topic of study.

The interview questions were created and asked under the AI philosophy that in every partnership, something works and that which is focused on becomes reality (Shuayb et al., 2009). Cooperrider et al. (2008) identified the major difference between other methodologies and AI was that every question is positive. Throughout the study's interviews, the researcher used positive questioning techniques to guide the participants in identification of the factors within the academy and partnership they valued and to tell stories or to give examples of the times worth valuing. Participants were not asked about barriers, challenges, or problems. The focus was on strengths in the organization rather than on weaknesses. Appreciative Inquiry moves organizations away from using negative terminology when describing where they see themselves. This is not in an attempt to deny the challenges or difficult experiences that are a part of all organizations, but it is to bring focus to what works and gives a good starting point for

the next transition or change (Cooperrider et al.; Michael, 2005; Shuayb et al., 2009). During interviews, the researcher probed for the examples and stories that built the framework of the partnership's reality, rather than merely facts and opinions. Through interviews and observations, factors were noted that gave value and life to the partnership. Through collaboration between the researcher and participants, application of AI followed the four stages outlined in *Figure 4*: The Appreciative Inquiry Cycle. The questions included in the interview protocol for this study were centered on the key elements of each phase: *Discover*-appreciating the best of what is; *Dream*-envisioning what could be; *Design*-co-constructing what should be; *Destiny*-sustaining improvement.

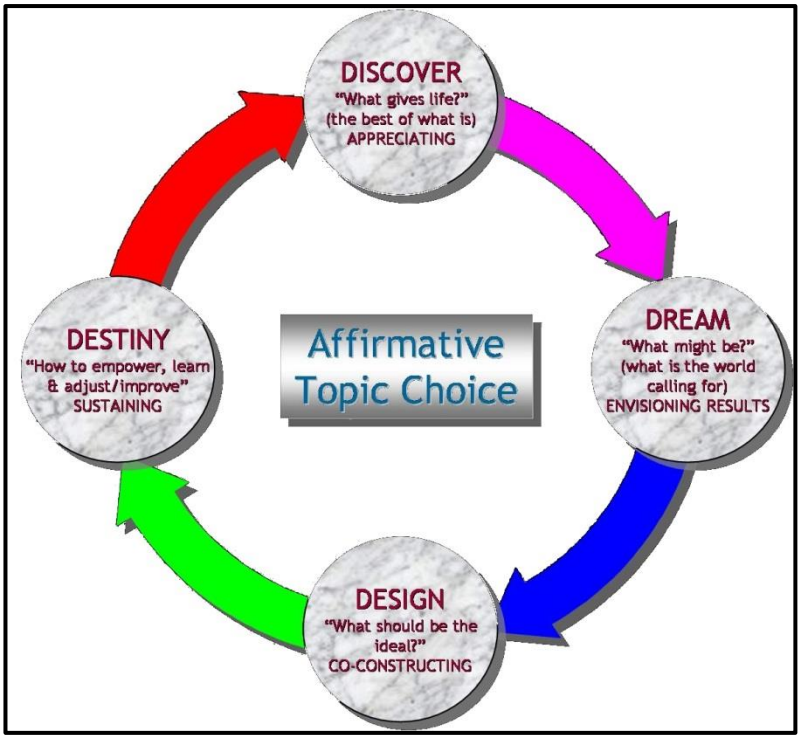

Figure 4. Appreciative Inquiry 4-D Process. Adapted from **http://www.new-aradigm.co.uk/introduction_to_ai.htm**

Table 2

Summary of the five foundational principles of Appreciative Inquiry

Principle	**Definition**
The Constructionist Principle	Reality is socially constructed through language
The Simultaneity Principle	Change begins from the moment a question is asked
The Poetic Principle	Our choice of what we study determines what we discover
The Anticipatory Principle	Our image of the future shapes the present
The Positive Principle	Positive questioning leads to positive change

Note. Cited in Michael, 2005, adapted from Whitney & Trosten-Bloom 2003

During the *Discovery* process, participants engaged in meaning-making dialogue that occurred in the interviews. They were asked to talk about meaningful moments or activities that were a result of the academy or the partnership with the industry partners. Research questions were worked into the interview, and the interviewees were asked to discuss their perceptions and beliefs related to the partnership. As the *Discovery* period progressed, trends began to emerge in what participants were valuing. Through conversation and dialogue, separate appreciations became shared appreciations (Cooperrider, Whitney, & Stavros, 2008).

Initially, the researcher thought to address the *Dreaming* process in the second interview or later. However, it became clear that the participants were eager to dream and think creatively about the future of the academy in their first conversation. Most were looking forward to planned events that involved industry partners, but there was an excitement in the voices of the students and teachers that expressed disbelief that people from the partnering industry could want to spend time working with them in the school. Because the academy was new, the participants did not have an extensive time period or experiences from which to pull their favorite memory that

happened to them in the academy, but everyone had something to tell. Several recounted a couple of stories. When asked how they wanted their future in the academy to look, many replied that they could not imagine it being any better than it was presently. Others shared small details.

Designing a common dream for the academy seemed difficult to students because they were happy with the academy and the partnership and had not thought about changing it. Through class discussions with their teachers on what the partnership could become that was not a part of their present reality, the students agreed that they would like to have internships available to them their senior year within Alabama Power. Many discussed how they would enjoy working beside some of the employees that had mentored them this year in school. When the teacher brought up projects and competitions, the students gave input on the new ideas.

Teachers and business partners were able to brainstorm ideas for the partnership. As seen in their conversations with students, the teachers talked about internships, mentoring students through activities and projects, and bringing in more employees to teach lessons versus just visiting to discuss the use of different concepts in the business world.

The business partners talked about working with more students and bringing students from different academies together to complete projects or competitions as was modeled in the BEST Robotics Competition. The program manager wanted to expand the reach of the academy to people in other regions who had a background in the local area. She felt that the life experiences of some employees from the southeast region would inspire the students.

Students and teachers were transparent in identifying their role in the Delivering/Destiny Stage of what they wanted their academy to achieve. Students who wanted to intern at Alabama Power stated that if they worked hard and presented themselves well when they met with the employees that came to their school, they could get the opportunity. Students also believed that

success would be a high paying, high interest career, which would require them to listen and learn from the industry employees. The teachers and administrators believed that partnership success would include student work-based and mentoring experiences. They discussed their dedication to doing whatever it took to achieve these results. Alabama Power partners defined success as an investment in students, thus an investment in the future. The business office manager also stated that if another Alabama Power Career Academy was developed based on what we have created in Ozark, then that would certainly be a compliment.

As a qualitative field agent, the researcher acknowledged the inevitability of bias in the portrayal of the participants' reality. As an insider to the research setting, the researcher strove to interpret interviews and observations neutrally in the context of the setting versus through any personal bias on the subject. However, qualitative researchers know that knowledge is created within the interaction between the researcher and that which is researched. Although background experiences, perceptions, and expectations were ever present, it was only through the participation that the researcher was in the position to meaningfully interpret what was observed. The full participation by the researcher also provided the depth of knowledge needed to look for disclaiming evidence in the interviews and observations. Thick descriptions of the time and place of the study set the stage for the case and its context. Creswell (2007) urged researchers to present the case and key issues with rich detail so that the reader can understand the complexity of the case and feel as if he has walked in the shoes of the researcher throughout the study.

Data Collection

Primary data were derived from (a) interviews with key participants including school administration and business partners; (b) observations of interactions between business partners and students, business partners and teachers, and students and teachers; (c) original documents

obtained from the school system that were created as part of the academy evaluation, i.e. minutes of planning meetings, scheduling emails, interviews of teachers and student focus groups, reflection forms, advertisement and recruitment brochures, and other correspondance between business and educational partners. Secondary data were obtained from curriculum and syllabus documents, books on the company's history, brochures, and teaching materials.

Purposeful sampling was used as a research strategy. Creswell (2007) defined purposeful sampling as selecting individuals who can purposefully inform the understanding of the case being studied. The school system set out to evaluate the partnership for the career academy and carefully selected participants who would provide the most relevant information for the evaluation. The goal of the evaluation was to build on what was accomplished during the first year in order to make the experience for students better and the actual partnership stronger for years to come. Four criteria were used in selecting the student sample. Those chosen had to be a member of the total population; representative in diversity to the total population; presently taking one or more classes in the academy; and a participant in three or more of the partner sponsored activities. The interview sample represented twenty percent of the total academy population enrollment demographics in ethnicity and gender. Twenty-two students were interviewed throughout the implementation year as a system's evaluation element of the academy. The interview sample consisted of twelve male and ten female participants, which included eleven black, ten white, and one other ethnicities. The students in the sample were all enrolled in the Alabama Power Business Academy, they had attended at least three of the activities sponsored by the industry partners and were taking either one, two, or three different classes during the 2013-2014 school year.

Table 3

Distribution of Gender and Ethnicity in Sample Population

Gender of Sample			**Ethnicity of Samply**		
Male	Female		Black	White	Other
12	10	Number	11	10	1
55%	45%	Percent	50%	45%	5%

Student interviews occurred at the beginning, middle and end of the implementation year. The lead teacher matched students to the sample protocol and then set up the interview schedule. The students were not required to participate, but seemed to think nothing of the opportunity. Student voice is valued in the school's learning communities. Student representatives met with teachers and administrators regularly to plan academy events, to speak out on issues affecting the student body, to work on continuous improvement, and to improve programs or partnerships. Mitra (2007) found that students hold distinct awareness about their school that neither the teachers nor administrators can fully replicate. The interview transcripts collected for the academy evaluation were requested for this study's review of data. The transcripts were devoid of all student identifiers when given to the researcher.

Class discussions occurred regularly to check the progress made in the academy and the influence of the partnership on students and teachers. Notes that were taken during these informal discussions by students, teachers, and central office personnel was requested. A teacher read the notes to ensure that any names or other identifiers were disquised before turning over to the researcher as data for this research.

Teachers that the partnership directly affected were interviewed as part of the data collected to understand the partnership. All academy teachers knew about the partnership, could

talk about the events scheduled for students, and could relay what specific teachers and students had told them about it. Five of the eight academy teachers worked regularly with the industry partners to have first-hand knowledge of the partnership and its influence on the academy. Those five teachers had the most to contribute to discussions and reflections about the partnership. Contributors were chosen because of their level of knowledge and information on the topic investigated (Patton, 1990).

Requests were submitted to the secondary instruction and evaluation department of the school system for original documents that were made to plan for, advertise, recruit for, and evaluate the academy and the partnership. Approval was granted and the original documents became part of the study's data.

Observations that the researcher made throughout the year, contributed to the rich detail that became part of the study. Creswell (2007) concluded that validation of qualitative research was made through extensive time in the field, thick description, and the closeness and familiarity of the researcher to study participants. The researcher was an observer throughout the year-long implementation of the partnership. A qualitative researcher, as participant researcher, is not seen as an outsider but can corroborate different perceptions or discover discrepancies between what participants say and do in their observed actions and through multiple sources of data (Creswell, 2007; Best & Kahn, 2005). Instead of focusing on the context of imitation due to position, the researcher conversed with all groups of participants at least twice and observed them engaged in various activities. Program evaluation occurs in the school system on a regular basis. All voices are valued in the evaluation process and participants are usually willing – if not eager – to speak out on topics that affect them.

Data Analysis

Multiple methods of data collection were used, i.e. interview transcripts, class discussion and observation notes, and original documents, which provided a view into the cultural values of the separate organizations and the partnership. The original documents comprised of evaluation data generated at the district level that contained student focus group and teacher interview transcripts. The diversity in data collection helped to validate and establish reliability in this qualitative research. The data sources and methods were triangulated in order to create credibility (Creswell, 2007; Eisner, 1991). Creswell stated that this process involves corroboration of evidence from multiple sources to focus on a theme or enlighten perceptions of the case. The methodology of this study combined multiple data methods to establish a valid and relatable interpretation of the educational partnership (Dhillon, Senior managers' perspectives of leading and managing effective, sustainable and successful partnerships, 2013). Dhillon proposed using methodological and data triangulation to achieve a detailed and credible understanding of the complexities of partnership through the different lenses of the participants. The methodological triangulation used in this research combined unlike methods to validate the same questions.

In this case study, open coding was used to label concepts and other units of data, axial coding identified relationships between the open codes, and then the constant comparative method aided in creating categories for the coded data. An inductive approach to data analysis and interpretation was used to explore patterns, codes, and categories from the bottom up. Creswell defined the inductive process as a back and forth movements between themes until comprehensive categories are established.

Multiple measures were taken to incorporate validity in this study, as seen in Table 4. Researchers throughout history have contended that validity and reliability in case study research

are attained through care in the study's conceptualization, and the procedures of data collection, analysis, and interpretation (Golafshani, 2003; Merriam, 2009). A number of techniques were employed to assure validity criteria in this study (Whittemore et al., 2001). The outline provided by Whittemore et al. (2001) was used to weave the process of validity throughout this study.

Table 4

Techniques for Demonstrating Validity

Types of Technique	**Techniques Used in this Study**
Design consideration Criteria Validity Addressed: Completeness, Thoroughness, Significance, and Voice	1. Developed a self-conscious research design 2. Implemented purposive sampling 3. Employed Appreciative Inquiry 4. Gave participants voice
Data generation Criteria Validity Addressed: Relevance, Truth value, Interpretive authority, and Saturation	1. Demonstrated prolonged engagement, two years 2. Established persistent observation 3. Provided accurate transcription 4. Demonstrated saturation
Analysis of data Criteria Validity Addressed: Credibility, Authenticity, and Meaning in context	1. Included member checking 2. Performed a literature review 3. Employed triangulation
Presentation of findings Criteria Validity Addressed: Transferability, Descriptive validity, Interpretive validity, Generalizability	1. Acknowledged the researcher perspective 2. Provided thick descriptions 3. Supplied evidence to support interpretation and generalizability

Note. Adapted from "Validity in qualitative research." by Whittemore et al., 2001, *Qualitative Health Research, 11*, p. 533.

MANUSCRIPT 1: FACILITATING FACTORS OF A SCHOOL-INDUSTRY PARTNERSHIP

Schools cooperate and collaborate with outside entities daily and in multiple endeavors (Lumby, 2009). Such educational collaborations have been operating for over a century (Watters, Hay, Dempster, & Pillay, 2013). One of these entities is industry. Business/industry partnerships with education evolved in the late 1900s as a way to develop the future workforce (Burke, 1986). They are now seen as a technique to cultivate authentic experiences through workforce engagement in education (Watters et al., 2013). This research investigated a school-industry partnership that focused on providing opportunities to better prepare students for college and career through their high school experiences. Thus, The Alabama Power Business Academy involved a relationship between the Alabama Power Company and Carroll High School in Ozark City Schools in Alabama. It was the first such academy in the state.

This research reports on the factors that facilitated success in this educational partnership. It is been organized into six sections. The introduction details the purpose of the study, research on what other studies identified as facilitators of success in educational partnerships, and background information on this partnership. The second section describes the research methods used and includes information on data collection and analysis. The findings are presented in the third section. The fourth section discusses the findings and their relationship to previous research. This is followed by implications for practice that can be derived from the findings and suggestions for further research.

Purpose of the Study

The purpose of this study was to determine the factors that facilitated the creation and implementation of a school-business partnership. This study detailed the work between the

school and industry partners as they sought to better prepare students for college, career, and life. It provided insider views on what worked in order to assist the partners in fostering continued success; offered information to others who might wish to create a similar partnership; and extended and enhanced the existing research on partnerships. "What elements served to facilitate the creation and implementation of the partnership?" was the research question addressed.

Research on Facilitators of Successful Partnerships

Partnerships are "complex innovations" (Tushnet, 1993, p. 13). Although such partnerships have a long history, research on elements that lead to their success is somewhat sparse. Almost two decades ago, Tate (1996) found strategic planning was integral in the partnership process as it enabled partners to understand one another's needs and goals and helped them to develop a shared vision. Tate noted that communication processes could be varied and must be open, honest, and regular. She found that not only is communication important internally, but time should be devoted to talking about the partnership externally to stakeholders. Likewise, Tushnet (1993) advised that after a partnership has been formed, the communication between the partners must move outward to all involved and/or to those who have a vested interest in its success. This interaction appeared to be essential in allowing those involved to share plans, expectations, and excitement around the new partnership. More recent research supported the need for all partners to build and maintain a shared vision and common goals (Cardini, 2006).The partners must feel ownership of the change, and be personally invested in the outcomes in order to commit to what it will take to sustain the partnership (Billett, Ovens, Clemans, & Seddon, 2007).

Another vital element in partnership success is trust. Dhillon (2005) wrote that the trust is the glue that holds the participants together and sustains the relationships. Trust is a diverse

concept and although there are varied levels of trust, it must be present at all participant levels for the partnership to grow and reach its potential (Dhillon, 2013). Three ways were identified in which trust was usually achieved: through past experiences, through expectations of personal traits, and through a code of conduct the person is held to due to the company for which they work (Harriss, 2000).

Finally, research has indicated that partnerships require commitment to the vision and common goals of the collaboration from those involved in it. This commitment must arise through an understanding of the partnership's potential and a drive to commit self and resources in the pursuit of success (Dhillon, 2013; Intriligator, 1992). Commitment must be seen across members, activities, and settings (Dhillon, 2013).

Background on the Partnership

The partnership examined in this research study is a collaborative effort between Carroll High School (CHS) located in the small, rural city of Ozark in southeast Alabama and the Alabama Power Company. The high school is the smallest 6-A high school in the state with approximately 720 students. In 2012, the school transitioned from a traditional to a technical high school. The change occurred when the system leadership realized that the high school was not meeting the expectations of graduation and college completion. The school's previous focus of preparing all students for four-year colleges was missing more students than it was reaching. School CTE positive placement data showed that only 35% of graduates went on to college and less than that graduated on time. Data showed that less than 40% of the college going graduates stayed in college after the first year. Less than 40% finished a four year degree in five years of college. The findings also showed that a few students consistently entered the military; others began working for minimum wage with the intention of beginning a two year college the

following fall; others “took the year off from school” and usually did not begin college for three or more years – if ever. Leaders began to ask the questions, “Why is retention in college so low?” and “What are the other graduates doing?” There was no structured follow-up beyond the assessment of student success conducted by the career and technical education programs nine months after graduation. The data revealed that students were not prepared for college or career success. Most paths of study, according to conversations with students and/or parents, left students unprepared for the demands of college life, disinterested in further education, or without a focus for a college major or work interest.

Leaders realized that the current system of education was not meeting their goal of preparing students for college, career, and life. They realized that students were taking various career and technical courses, often in different pathways, with no plans to use the knowledge and skills learned beyond high school. Career guidance did not have a strong enough focus. Leaders began researching and visiting other systems that seemed to better prepare their graduates. It became clear that something needed to change for the students of Ozark, Alabama.

Educational leaders met to shape a new vision for education in Ozark City. They spoke to teachers, students, and community leaders to get perceptions and input. They took their ideas to the state department leaders to get their suggestions and guidance. Some visited systems implementing career academies and brought back possibilities. People within the city began asking questions about career-themed academies and talking about them. After a year of research, educational leaders broadened their stakeholder discussions. The entire high school faculty was included in meetings and invited to visit a neighboring state’s career academies. Two bus-loads of community leaders were also taken to visit the career academies and dine with the

community partners who supported those academies. Later, the educational stakeholders, including parents, teachers, administrators, and community leaders held a visioning retreat.

Shortly thereafter, plans were underway to build a new high school. Based on the investigations into career academies that had taken place, the visioning retreat and the recognized need to reform graduate preparation, the system built their new high school to support career-themed academies. In the interim period, the high school restructured its instructional program and set up academies within the old high school so that they would already be in place before the move to the new facility that opened to students on April 1, 2013.

Six career-themed academies were created and added to the Freshman Academy that had been in place for two years. The freshman academy was established to address the high failure rate and discipline incidents perpetuated in the 9th grade year. Since its inception, the Freshman Academy concept improved the graduation rate and lowered discipline issues that began in the freshman year. It became the primary place for career exploration and academy recruitment when the career academies were added. The six added academies were The Arts Academy; The Human Services Academy; The Industrial Technology Academy; The Medical Sciences Academy; The Business Academy; and the STEM Academy (Science, Technology, Engineering, & Math). Six new programs were created to enhance the academies, which were Pre-engineering, Teaching and Learning, Masonry, Criminal Justice, Graphic Arts, and TV Production. Most of the academies grew from programs already in place within the high school. All of the academies had advisory committees and, to some extent, worked with industry partners. However, none had a particular industry's influence and support from the foundation course to post-high school. Few industries in the small town could afford to fully support a high school academy.

A representative from the local office of Alabama Power was included in an academy visit to Florida, where the high school that was hosting the visit had a partnership with Gulf Power to support a utilities academy. The Alabama Power Business Office Manager was able to talk with Gulf Power representatives and to see the possibilities that could be gained from supporting a high school academy. After returning to Ozark, the academy leader at the school system met with the Alabama Power representative and regularly engaged him in academy discussions. Four months after the academy visit, the Alabama Power representative invited leaders from the school system to meet with leaders from Alabama Power to discuss the creation of an Alabama Power Academy at Carroll High School. A core team of three professionals, two from Alabama Power and one from the school system, was created to plan and implement the academy. Alabama Power referred to the Alabama Power Business Academy as a pilot that could be reproduced at other high schools in the future (Ozark Business Office Manager, personal communication, July 8, 2014).

Officials from Alabama Power committed to provide human and financial resources as needed throughout all aspects of the academy. The officials also committed to hosting student field trips and student mentoring pursuits in order to develop the future workforce. In return, the academy carried the Alabama Power name and industry representatives became involved in developing the curriculum and assisting with learning activities in order to prepare students for future careers within the industry.

Methodology

A case study was used to conduct this research. As researcher, I was a participant/observer and acted as the instrument for data collection and analysis (Merriam, 2009). I went to the academy setting throughout the implementation year to observe and talk with the

participants. I regularly participated in lessons, field trips, and the networking luncheons alongside the students, teachers, and business partners. The participants considered me an insider, and I was able to see and understand the case as such. Although background experiences, perceptions, and expectations were ever present for the researcher; it was my subjectivity that gave my interpretations perspective and insight (Maxwell, 2013). Only through participation was I in the position to meaningfully interpret what was observed. The full participation by the researcher also provided the depth of knowledge needed to look for disclaiming evidence in the interviews and observations. Thick descriptions of the time and place of the study set the stage for the case and its context.

Appreciative Inquiry (AI) was chosen as the approach used because of its concentration on what is working in the partnership versus trying to identify a problem to fix (Shuayb, Sharp, Judkins, & Hetherington, 2009). The focus was on strengths in the people and the organization rather than on weaknesses. Appreciative Inquiry sought to move organizations away from using negative terminology to describe themselves. This approach was not an attempt to turn a blind eye to challenges or difficult experiences. It was built on the premise that examining what is working provides a good starting point for the next transition or change (Cooperrider, Whitney, & Stavros, 2008; Michael, 2005; Shuayb et al, 2009). As participants shared their stories, their voices were heard and they became part of the description of the organizational change being studied (Michael, 2005).

Data Collection

There was a variety of data collected including program and school documents, program evaluation results, student written reflections on partnership activities and individual and focus group interview transcripts with students, teachers, administrators, and business partners.

Data were collected systematically for a two year period beginning in the planning year and continuing through the first year of implementation of the partnership. The school system leaders provided documents and data related to this study that originated in the evaluation of the academy. The data also encompassed observation notes from ten classroom visits and nine events sponsored by the business partners. The events included a bus trip to Farley Nuclear Plant, two networking luncheons at a local bank's banquet room, two presentations by business office employees who taught tricks and tips used when working in Excel, two presentations by the core team of partners, a marketing presentation by a partner representative from the marketing department, and a trip to the Dothan Civic Center for the Wiregrass BEST Robotics Competition. The observations offered an opportunity to triangulate the information provided by the participants.

Email conversations between the business partners and school personnel were submitted for study. These data shed insight into the collaboration and conversations that occurred when planning for events between the industry partners and the school but were not quoted in the data analysis. Although most were of a scheduling nature, a minimum of four emails between the key schedulers (usually the program manager and lead teacher) occurred for each event. Often a thank-you email followed events either from a teacher or designated student. Telephone calls and texts extended the communication between partners, but these were not recorded and submitted to the researcher. Other documents included five student focus group transcripts (composed of twenty-three students), one teacher focus group transcript, interview transcripts of five teachers, and three transcripts of presentations by business partners. The student and teacher focus groups and interviews occurred as part of the academy evaluation. Much of the quoted teacher and student comments used in this study came from the evaluation documents that were recorded by

this researcher in my role as lead academy evaluator and career and technical education director. All available transcripts that were obtained from the school system in the program evaluation process are included in the research data.

In addition to gathering school and program data, this researcher conducted interviews with the two administrators who had the most interaction with the partnership and two main business partners who coordinated all of the partnership's interactions. These four interviews were conducted in the summer following the implementation year of the partnership. The interview sessions were planned to last no longer than one hour, however each person seemed to enjoy talking about the partnership and the conversations went beyond the planned questions. The recorded interviews were transcribed and then provided to the participants for review and revisions. The formal interviews of administrators and business partners provided rich descriptions of and insights into the partnership.

Data Analysis

The transcripts of interviews and focus groups and documents were open coded to label the concepts and categories found. Axial coding was then used to make connections between the labels so that main categories and sub-categories could be developed for themes that described the partnership and illustrated the characteristics most valued by the participants. Saturation of data was reached when only re-occurring themes appeared (Creswell, 2007).

The validity criteria of credibility and meaning in text occurred through the analysis of data that included member checking of transcripts, methodological triangulation, and data triangulation. Triangulation was a part of the research design, but its effect occurred during the analysis of data.

Findings

This researcher identified six elements that contributed to the creation and implementation of the Alabama Power Business Academy and that may have the potential to foster success in other partnership endeavors. The six elements are (a) purposeful planning and flexibility in the implementation, (b) shared values and common goals, (c) open and regular communications, (d) trust, (e) commitment, mainly in the form of human power, and (f) leadership, within all organizations. Each of the elements is presented in this section.

If---during the interviews, focus groups, and observation notes---an element was referred to thirty times or more (or ten percent) that element was categorized as being an important component in partnership development and success. The six elements that were categorized as significant are shown in Table 5.

Table 5

Significant Elements that Facilitated the Partnership

	Open & Regular Communication	Commitment	Shared Values & Common Goals	Trust	Purposeful Planning and Flexibility	Leadership	**TOTALS**
Study Interview Data							
Program Manager	18	18	9	4	6	7	**62**
Business Office Manager	10	4	8	5	7	3	**37**
Superintendent	4	3	5	3	2	2	**19**
Principal	5	3	1	1	3	4	**17**
School Evaluation Data (interviews, focus groups, reflections & observations)							
Teachers, n=8	31	31	13	15	5	4	**99**
Students, n=22	8	7	1	4	1	2	**23**
Observations/ Presentations, n=9	9	7	6	4	9	8	**43**
TOTALS	**85**	**73**	**43**	**36**	**33**	**30**	**300**

Purposeful Planning and Flexible

The first of six elements identified through the research on this case study in building and sustaining a school/industry partnership was purposeful planning. Planning was referred to by the participants thirty-three times. Purposeful planning in this study involved defining the ultimate results desired, making clear how all would know the results had been accomplished, and designing strategies to that end. Flexibility was also found to be important in the implementation of the plan because it allowed the plan to be responsive to the participants and the changes in the partnership.

Table 6

Coding Results for Purposeful Planning

	Program Manager	Business Office Manager	Superintendent	Principal	Teachers	Students	Observations/ Presentations	Total
Purposeful Planning	6	7	2	3	5	1	9	**33**

The school and industry partners communicated regularly about the needs and responsibilities of implementing a career academy to better prepare students for college, career and life. They also discussed developing a strong workforce applicant pool for the local economy. Then, the individual participants committed the time and energy required of them to attain the goals. The superintendent invited the industry partners to announce the partnership to the school system, city leaders, and other stakeholders at the beginning of school institute in August of 2013. This public show of buy-in by the industry partners was seen by stakeholders, especially teachers, as unexpected support by this industry leader. The Alabama Power partners' ownership of the academy gave the career academy credibility and strength. As the high school principal explained

> The plan to include the announcement of the academy partnership at institute increased our image in the public. When the Business Office Manager of Alabama Power stood up and described the company's plans to support the academy, it showed that they believed in the academy concept and they supported us in it, which provided buy-in for some of the teachers who were holding out for whatever reason. Alabama Power gave our academies credibility.

The participants indicated that purposeful planning was crucial to the ease and organization realized by the partnership. The adult participants spent time imagining the results that they wished, and then worked backwards planning for that success. Three of the eight teachers spoke of how important planning with the partners was to them. Both the industry partners and the administrators saw purposeful planning as the first step in their alliance. One core team member explained this in an academy visit.

> I think one of the most important things we [the core team] did was to spend nearly a year planning the academy. We identified what we wanted to accomplish and what it would take in the form of time, [human power], and other resources. It took several meetings, but we walked away with a plan, something concrete to do. – Program Manager

The core team of two representatives from Alabama Power and one school district leader grew to include two teachers. In one of the academy evaluation-reflection meetings, a teacher commented

> Planning was important. When we were able to sit down and plan with the business partners, everything worked well to develop relevance and insight into the classroom learning. I would have loved even more time to sit down and plan with our partners for those visits.

The superintendent also felt that planning was important to the implementation of the partnership. He reflected

> Planning is very important to the success of anything, and the success of this partnership was no different. Our plan for the academy has changed and grown, and it is better now than the one we began with.

From the beginning, the academy director tried to make the plan of career academies and partnerships transparent. The principal spoke on this in his interview when he stated

> Going to West Florida to see their academies was a turning point in the planning stages. The vision of career academies had been shared and explained, but taking us to see them ensured that we got it. I think it was important that the Office Manager from Alabama Power went with us.

The school system's leaders planned for academies for more than two years while they worked to bring the participants on board. Once the decision was made to form a partnership for the development of the Alabama Power Business Academy, the core team took another year to plan for expected results and what they thought participation and support would look like. It appeared important that purposeful planning took precedence in such a comprehensive partnership, but flexibility was required in the implementation of the plan. The program manager discussed flexibility in the core team's year-end reflection meeting.

> I believe being flexible and willing to change course has been important to this partnership, too. If we had stuck to the plan, we may not have taken the turns that we did. We may not have been responsive to the needs of the students and teachers. Our genius occurred in our flexibility and willingness to deviate from the plan.

At first, teachers did not credit flexibility as a major contributor to the success of the partnership; but when later asked about its value, all eight teachers said that it, of course, mattered. As one teacher elaborated

> Flexibility is critical in all we do every day at school. A teacher's day is about 60% planned and 40% flexibility to the plan. This partnership is no different. We began with a plan, but as the year unfolded, new ideas and pathways opened up and we felt we would gain more from the new opportunities rather than the planned ones. We were right.

Another teacher stated that:

> If flexibility was not mentioned in the interviews, it must just be that in teaching, flexibility is a given. I cannot imagine working with children and not being able to take the unplanned teachable moments.

Another teacher concluded that:

> Everything important enough to do should begin with a plan, but the administrator of that plan should always be willing and able to deviate from the plan when something better can be attained in the deviation.

Shared Values and Common Goals

The second element that fostered success in the academy partnership was that the individual organizations identified shared values and common goals to drive the collaboration within the partnership. The collaborative partnership took time and energy from those involved to attain the shared goals. Shared values and common goals were identified as significant forty-three times in the data. The teachers and business partners largely saw this as important to the success of the partnership. The participants viewed shared values as fundamental beliefs and principles that defined the culture of the partnership and guided the decisions and behavior of the

participants. The definition of common goals for this study is the overall objectives, purpose, and mission of the partnership that were established by the core team and communicated to the partnership's participants. The common goals focused on long range intentions for operation provided useful guidance for the participants. The common goals of this partnership were to establish a business career academy where business representatives work with teachers to bring rigor and relevance to learning experiences, while preparing students for further studies or work after high school; to enhance students' engagement and performance in high school and provide them with the credentials and skills needed to make successful transitions beyond high school; and to redefine curriculum, teaching and learning, community resources, and the confines of time in radically different ways to address the knowledge and skills and intellectual growth of students while engaging them in a relevant learning environment.

Table 7

Coding Results for Shared Values and Common Goals

	Program Manager	Business Office Manager	Superintendent	Principal	Teachers	Students	Observations/ Presentations	Total
Shared Values & Common Goals	9	8	5	1	13	1	6	43

For this partnership, the primary goal was to develop a business academy that provided opportunities to learn knowledge and skills needed to be successful at college, in a career, and in adulthood. The knowledge and skills focused mainly on essential skills such as diligence, integrity, dependability, trustworthiness, and work ethics.

> The character building that the teachers have talked about as a benefit of our participation in the academy is truly powerful. If students realize that it is not always about making an

> A, but that giving your all and doing your best makes you a winner, too, then they are building character. Helping the teachers teach the essential skills was not in our original plan, but we are so glad that it has been accomplished. What does any employer want in an employee? They want a dependable, trustworthy worker. Skills can be and often are taught on the job, but the essential skills need to be learned and practiced much longer. – Business Office Manager

The superintendent of the Alabama Department of Education presented his vision for public education in Alabama as part of Plan 2020 in the fall of 2013. This vision included the statement that, "Every child a graduate and every graduate prepared for college/work/adulthood in the 21st century." The leadership in the Ozark City School System believed that the state's superintendent's vision fit their vision and that the partnership was off to a solid start.

A common mission and vision with supporting goals were important to everyone interviewed (administrators, industry partners, teachers, and students). Even the students talked about being able to link the goals of the academy with the vision of the teachers and the vision of the business partners.

A teacher reflected on the common mission of the partnership:

> More than anything, it is seeing them [gestures to the students] get excited. It is seeing students understand that the little things – the essential skills: ethics, communication, commitment, and trust – are important in preparing them for a career. It is not just the computer or accounting skills that we teach that matter to employers. The way they interact with others and carry themselves goes a long way in getting you where you want to be in a business and in life.

In a later interview, the same teacher commented

> The essential skills have really been emphasized through this partnership. Modeling the essential skills seems to be a natural and effortless part of who our Alabama Power partners are. I have seen them come in for one purpose but leave the students with so much more, especially in the essential skills department.

School wide goals are important to the partners, too. A teacher explained

> A school wide focus that we have is communication and presentation. My ninth grade classes were working on a project on how to interview people and present what you learn in an interesting, engaging way. The industry's Program Manager visited during this activity and became animated over the skills the students were using. She emphasized that communication and presentation skills are very important to Alabama Power employees, too.

Common goals are also evident from a student's perspective. As one student noted

> The people from Alabama Power tell us the same things that our teachers say…only in a different way that seems more relevant to my future.

Another student commented in a focus group:

> All of the Alabama Power people act professional and talk about the importance of credentialing, doing well in school, keeping our social media posts clean, doing good for other people, and setting goals and then working to achieve them. All these things we hear from our teachers over and over. It seems new, and more important, when the people coming in from the business world say it.

The school system superintendent touched on the common goals of the partnership when he stated

> Sharing a vision with Alabama Power for the academy has been an important, but easy step in this partnership. Everyone is focused on what is best for the students. Our vision evolved from what we both wanted individually to a common vision which is better than ours alone.

The participants agreed that when they identified a shared vision and then worked on it together the goals were aligned effortlessly during the planning stages of the partnership. The vision, values, and goals seemed to be deeply engrained into the system and program.

Open and Regular Communication

The third of six factors identified in this study to facilitate the implementation of a school-industry partnership was open and regular communication. In the case of this career academy, communication included any and all of the communication between the industry employees, the teachers, the administrators, and the students. The communications included information about the career academy, the partnership, and events scheduled therein. Communication also included the discussions, the mentoring, and the sharing of knowledge and skills that were workplace and credential related. There was little interaction with the parents, the community, and the local government outside the academy except during presentations and events at which they participated. Parents, community, and politicians were not interviewed.

The two groups most involved and responsible for the partnership - the teachers and business partners - referred to communication the most. More than three fourths of the coding for communication (69%) came from these two groups.

Table 8

Coding Results for Open and Regular Communication

	Program Manager	Business Office Manager	Superintendent	Principal	Teachers	Students	Observations/ Presentations	Total
Open & Regular Communication	18	10	4	5	31	8	9	85

A teacher reported that when she stayed in touch with her Alabama Power partner to plan and schedule, everything ran smoothly, and much collaboration took place inside and outside of the classroom. However, this was her biggest challenge area in the partnership.

> Time was an issue. They have work responsibilities and we have curriculum and testing expectations that we have to meet. We realized that it was the interaction with the partners from Alabama Power and attention to real world activities that students enjoyed and learned the most from. So, we are all committed to making those opportunities available.

Another teacher reported regarding communication:

> Communication was key. I hope to become a better scheduler and manager of time in the coming years so that we can make time for the really important aspects of the partnership.

Sometimes the industry partner can communicate a truth that can be used in class from then on, as demonstrated after the first assembly where the regional director at Alabama Power gave a motivational speech about "Doing the right thing the right way." A teacher explained that

> Doing the right thing the right way has become a mantra that I have used many times. If I ever hear a student say he doesn't want to do something I tell him that isn't a choice, you've got to do the right thing the right way every day! Because of that speech, it is no

longer just me, a teacher, telling him, but an industry leader, and in fact, the entire company standing behind me expecting him to succeed.

The Business Office Manager recounted the same presentation and how he viewed it as his most memorable moment in the year of the academy partnership.

> My most memorable moment in the first year of the academy partnership happened each time that our Regional Manager spoke to the students. He made connections with the students during his "Do the Right Thing the Right Way" speech that you could see on their faces and in their actions. Each time the three of us visited, I saw one or two students walk into the library determined to sit through the presentation, not at all excited that they had to. The student walked into the library – nonchalantly - but during the meeting you could watch his interest grow and his mind engage in what he was hearing…he got it. I could see actually see him connect to my boss and I knew that he got through to at least one student. This was my memorable moment…there was a connection made. He hung on each word, he got it.
>
> Going back to the teacher who felt like she has our support…that is awesome that our partnership caused that feeling to occur. We just wanted to provide the [human power] and resources needed to make this a workforce training field for any job. The big question that we continue to ask is, "How can Alabama Power help you do what you need to do for the students of Alabama?" That is why we became a partner in this academy. –Business Office Manager

The program manager commented to the researcher during a visit that communication was crucial. Staying on each other's calendar and getting emails off with ideas or to schedule an event kept us in contact. The program manager was the conduit for effective communication

between the industry partners and the school. She kept the ball rolling and kept the right people connected to the classroom. As this study indicated, the stronger the communication flow the stronger the partnership. When communication was flowing, schedules were aligned and opportunities abound for connection and growth.

Trust

Trust, the fourth facilitating factor for this educational partnership, evolved as a common thread within the research on partnership. It was described as an intangible, but strong influence on any partnership (Dillon, 2005). The academy partnership began due to a history between the two organizations. Personnel of the Ozark City Schools had established trust through their history of serving students and the community as had the employees of Alabama Power in their commitment to keeping the lights on and service to the community. The idea of trust was introduced when people first came together with a purpose. It was either strengthened or diminished with each subsequent interaction of the partners. When the participants mentioned trust, they admitted to not thinking about trust, but knowing that it was present and strengthened through every interaction. Trust, for this study, was the level of expectation one has of another person, when in a position of risk. The level of expectation refers to confidence in the integrity and truthfulness of the other. Risk was mentioned because the partnership required each participant to depend upon the other in order to succeed. In this partnership, the participants seemed to trust what each other said and did for their individual good as well as for the greater good of the partnership.

Table 9

Coding Results for Trust

	Program Manager	Business Office Manager	Superintendent	Principal	Teachers	Students	Observations/ Presentations	Total
Trust	4	5	3	1	15	4	4	36

The following comments came from a student focus group conversation in which the topic of trust was shared. They students gave the following examples of how they felt that the industry partners had earned their trust.

> I really appreciate that the employees of Alabama Power think we are important enough to spend time with when they could be doing other things. I respect them for giving their time to us and our academy.
>
> I always looked forward to people from Alabama Power coming to work with us on something in our class. What would normally be a good lesson, because our teachers are very good, became a great lesson because they showed us how they use what we are learning in the real world – in their work.

Four months into the academy partnership, one of the academy teachers expressed

> I trust this partnership! No matter who comes or for how long, everyone puts the students and their learning first. I would say trust and having the same focus – our students – are really important to the strength of this partnership.

The business office manager at Alabama Power talked of trust between the partners:

> The whole partnership was built on trust. We trusted the school to lead us in the way we needed to go. We knew that you trusted us to be there and to bring our people to the table. There was no need to worry, because there was trust.

Another example of trust in the partnership was found in the following statement made by the business office manager:

> In the beginning, I think that trust from past experience came into play – a corporate trust – we saw Ozark City Schools deliver on promises in the past. We knew that you have your act together and we trusted that you will do what you say. You trusted Alabama Power because we had been around a long time and we delivered on our promises. Now that trust has moved to individual trust – it's personal. Through working with one another and being able to depend on each other, a deeper trust was forged between the key partners. Trust is a stronger, more tangible thing, now.

The superintendent spoke to trust when he claimed

> We trusted Alabama Power to uphold the high standards that they are known for and work with us to successfully transition students from high school to work and further education. The messages that our teachers and their employees rendered to our students were consistent. I believe that trust was crucial to this partnership at all levels.

Each level of participant indicated that trust was important at all levels of partnership, not just on the ground where the plan was being implemented but at the top levels of both organizations, too. In the present study, the students, teachers, administration, and business partners experienced trust in one another and each interaction strengthened the relationships. It did not occur overnight. Trust carried a price in terms of time, as it grew and evolved.

Commitment, Mainly in the Form of Human Power

Partnerships in education form daily with different expectations and various degrees of partner participation. Commitment, as defined for this study, was the degree to which a person was determined to achieve desired common goals and the strength of responsibility that a

participant had towards the mission of the partnership. The partnership with Alabama Power exemplified true commitment at the participant level. Alabama Power Employees gave of their time and experience regularly in a classroom setting that was far removed from their daily work responsibilities. Commitment, the fifth factor that facilitated this partnership, rated second in importance to the participants next to communication.

Table 10

Coding Results for Commitment

	Program Manager	Business Office Manager	Superintendent	Principal	Teachers	Students	Observations/ Presentations	Total
Commitment	18	4	3	3	31	7	7	**73**

School-based people reported to be amazed by the commitment of human power that the partnership provided to the academy. They shared that no matter what the topic, the program manager scheduled knowledgeable employees to come to the classroom and share their skills and expertise with the students. The teachers met with the program manager on field trips and learning activities and reported that her input was invaluable. The following comments were made by the academy teachers, as they shared the common theme of commitment.

> The Alabama Power employees who have worked with our students are the facilitators of success. It is the human factor within this partnership that makes it successful!
>
> We came to depend on the Program Manager's commitment to the partnership, but were amazed when every employee who came were just as committed in making their piece of the partnership successful!
>
> All the company's employees who give of their time and experience mean a lot to our program, our partnership, and our success.

The program manager shared her own understanding of the need for commitment from the business partner in a school-industry partnership, when she noted

> Three things that I would suggest to a potential school-industry partnership would be
>
> 1. Have a point person to take on the responsibility of planning with others and staying in contact with the major players. An organizer who keeps an eye on everything is a must.
>
> 2. Be involved. Do not just check in on the partnership, become the partnership.
>
> 3. Bring your best people to the table, not the visible leaders, but the people who get the job done and can show students the real work that they do. The people matter.

Then, she added

> The relationships between all of us [the participants] were facilitators of success. An example of this was that the teachers felt free to communicate with us regularly, which kept the ball rolling. Their approach to letting students mature and take on leadership roles while providing guidelines, support, and high expectations for the process was instrumental. The teachers were committed to what was best for their students.

The students also understood the value of commitment. For example, one student said

> I really appreciate all the workers giving of their time in order to prepare us for what work is like.

Another student stated

> It feels more professional, you know, real world, when we work with or talk with Alabama Power employees. They have provided a natural transition into the business academy.

A third student echoed the importance and value of this commitment when he shared

> I appreciate that the employees of Alabama Power are taking their time to show us how to work the process. They are preparing us for business no matter where we go - not just Alabama Power.

The superintendent of Ozark City Schools addressed the commitment of the participants:

> The main reason for the success of the partnership is the people. We have the finest people from the high school working with a prodigious group of business partners. People and their commitment to the relationships make the partnership work.

Commitment, in this partnership study, mattered more than top down management as a means to an end. Personal commitment kept people coming back to offer their experience and personal input. It also built relationships. The commitment to the partnership seemed to matter most. Another teacher remarked

> The partners were great! Their commitment was inspiring. In hindsight, I can see that things would have been better if I had included them in more, because the times that they did participate, student learning was better - more rigorous, more relevant.

Leadership, Within all Organizations

The sixth, and final, factor identified through this partnership as a facilitator of success was leadership. The core team, which was composed of the program director and the business office manager from Alabama Power and the academy director from the school system, had enough influence and power to make decisions and to leverage resources at their discretion. The members of the core team were actively involved in the planning, implementation, and evaluation of the partnership. This partnership was composed of partners with equal stature who respected and trusted one another to do their part toward the goal. Leadership, in this instance, refers to the three people who were charged with making this partnership strong and sustainable.

Later, leadership refers to the participants at all levels, including students and teachers, who led their peers in the partnership activities, communication, and collaboration.

Table 11

Coding Results for Leadership

	Program Manager	Business Office Manager	Superintendent	Principal	Teachers	Students	Observations/ Presentations	Total
Leadership	7	3	2	4	4	2	8	30

The core team of three leaders worked together so that the vision for the partnership was shared. They visited the school often in the beginning and regularly participated in activities, speeches, or trips that involved the students within the academy. As the year progressed, much of the conversation and planning were released to the two lead teachers and the program manager. However, the other two members on the core team stayed in contact with the pulse of the partnership and supported it through their presence and resources.

Every group of participants---students, teachers, administration, and industry---designated leadership as fundamental in the partnership's success. Accordingly, every leader interviewed identified other leaders as important to goal attainment and pivotal in making their job easier. The Program Manager acknowledged

> The leaders, on both sides, who supported the partnership, who had a plan and followed through with the plan, consistently facilitated success.

During the year-end evaluation meeting, the Business Office Manager stated

> The Academy Director had a vision for the alliance and communicated it regularly to me while she waited for our commitment. She called weekly and talked to me about how important the academy would be to Ozark, to the school, and to Alabama Power. I knew

> that it [the partnership] was big, and I trusted her leadership to make it work. Taking community and business leaders to visit the academies in Florida was a brilliant, strategic move. That trip was the tipping point for the academy movement in Ozark.

During a visit to the academy, two of the academy teachers were discussing positive influences on the academy and leadership was part of that conversation.

> We were lucky to have a leader who envisioned this partnership for an academy, then worked to make it happen. We know that it was not an easy task; she was met with much resistance, but she persevered. When she told us that Alabama Power had joined us, we knew that it had all finally fallen into place. She knew what she wanted and what our students needed, and she was persistent in getting it.

The academy director was instrumental to the success of the academy partnership, but other leaders supported and provided resources and facilities for the academy and its events. The program manager was the conduit for communication and leadership between the industry and school participants. Another teacher confirmed that leadership was important to making what happened in the partnership successful:

> We have such a good partnership because the leaders on both sides have followed through with everything that has happened. They check in with us and make sure we have what we need and that things are running smoothly. Our director is in-and-out of our classes and the program manager comes every time with every employee she signs up for us. They want this to work and they show that it is important to them. That makes all of us, teachers, and students, feel supported.

The high school principal talked on the elements in the partnership that facilitated success. He acknowledged

Leaders who were determined to make the academies happen and become sustainable were central to the success we have realized in the Alabama Power Business Academy. The choice of a business partner who was a good fit and committed to making things better for the students was important. Their commitment to this project was pivotal.

Discussion

The purpose of this research was to examine the elements that facilitated success in a partnership between education and industry in establishing a career academy. This study identified six elements that contributed to a successful school-industry partnership that has the potential to be sustained. The six elements are 1) purposeful planning; 2) shared values and common goals; 3) open and regular communications; 4) trust; 5) commitment, mainly in the form of human power; and 6) leadership. This list has elements in common with the research of Dhillon (2005, 2013), Intriligator (1992), Tate (1996), and Tushnet (1993).

Table 12

Common Factors in Facilitating Partnerships Found in Research

Griggs, 2015	Dhillon, 2005, 2013	Intriligator, 1992	Tate, 1996	Tushnet, 1993
Communication	Networks	Interagency structure	Information sharing/ communication	Communication
Commitment	Motivations of participants	Personnel roles	Role specification/ commitment	Commitment
Trust	Types and levels of trust	Interagency relationships	Trust/fairness	Build relationships
Shared Goals & Values	Norms and values	Interagency objectives	Compatible cultures & values	Shared concern about real problems
Purposeful and flexible planning		Operating policies	Procedures & policies are clear/flexibility	Use evaluation, strategic & adaptive planning
Leadership	Governance structures	Power & influence		Leadership
		Resource allocation procedures	Exit provisions	Provide resources: training, technical, materials

.

Planning was seen by the adult participants as a vital first step after forming the partnership. Leaders from both organizations began the process and saw it through to the year-end evaluation. The planning and its implementation were carried out primarily by the teachers and the program manager who worked directly with the students and volunteer employees. The importance of purposeful planning was documented in observations more than the other data. It indicated that plans were easily seen when observing the outcomes of the planning. The business partners referred to the importance of the planning stage more than the other participants. Again, like in observations, the business partners were more on the outside looking in at the big picture. Teachers also validated the importance of planning in their comments and interviews. The teachers and the program manager were the ones charged with implementing the plan.

It is important to note that the planning process took into account the vision for the partnership, the goals that were set to accomplish and what success would look like. After deciding to begin a partnership, the core team worked on planning it for a year. The team met on topics that included the location of the academy, the curriculum that would be taught, topics to be addressed within the curriculum, how employees would be used to support the curriculum, the academy's name, and the use of the business logo. The planning process also looked at the proposition that the partnership would be a win-win situation for both organizations. Both partners knew that a successful partnership between them would be built on common interests and outcomes that would benefit everyone. With this in mind, the core team spent time and energy in the planning phase of the partnership. Thus, the time and energy spent in planning was another reason that the business partners and teachers may have viewed planning as significant to the partnership. One could argue that it takes a more organized person to plan the schedule of the partners so that the partnership is made as rich is it can be. This argument could be examined more closely. Also, the amount of time spent on this research was quite extensive. Additional research might be useful to determine the importance of the long preparation time and the impact it had on the perceived satisfaction and success of the partnership. It is also possible that the time spent was itself an indication of the trust and commitment these individuals had with and for one another. For example, spending time with one another possibly helped to build trust and commitment. On the other hand, the willingness to spend this time in intense investigation might itself be an indication that trust and commitment were integral parts of the relationship. In essence, the interwoven nature of these attributes seems apparent, but further study into their development and whether one could occur without the other might be of value.

Initially, flexibility within the planning process was not specifically identified as an essential ingredient in school-industry partnership by the teachers, but it was mentioned in a number of the transcripts. After noticing that the business partners referred to flexibility in several conversations, the researcher went back and asked the teachers about its importance to the partnership. The teachers contributed that flexibility was an unquestionable part of the real world and school life. Perhaps because it was such a real part of the teachers' and administrators' daily lives they did not notice its presence as anything but routine. This element was not dealt with thoroughly in the literature although it was noted as important by Tate (1996). Given the present context of life and work in which change is a constant, this ability to be flexible may gain greater importance in the change process. The impact of flexibility and its importance in the planning process bears further study.

The vision and goals seemed to be deeply engrained into the system and its participants. This could have been a result of the long term planning that occurred prior to implementation of the academy. The fact that the state department of education came out with a similar vision could have aligned resources and support that may not have been available otherwise. When everyone was working toward the same goals and moving in the same direction, success appeared to be more easily attained.

Open and regular communication was the most referred to element by all the participants in this study. In all relationships, how well the partners communicate can determine whether the relationship succeeds or fails. The communication types found in this partnership include

- Email – on the operational level, the program manager corresponded with the academy director and the teachers through email the most. The academy director stayed in contact with the teachers through email when she was not at the school;

- Telephone conversations occurred between the program manager and teachers as needed to pass along pertinent information and attend to details on upcoming events. The academy director and the business office manager conversed via the telephone, also.
- Visits to the classroom occurred regularly to bring selected employees to make presentations to students or to work with them on specific projects. The program manager also dropped in at times when she was near the school to check on what the students were learning and to go over last minute details on certain events;
- Planned meetings occurred for the core team to reflect, plan, or evaluate things relating to the partnership.
- Communication in this partnership was described as regular, needed, welcomed, important, and necessary. The variety of methods used for communication between participants appeared to allow for a great deal of interaction.

The extent of these interactions may be another indication of commitment and trust and once again stresses the connections between the elements which appeared to foster strong partnership development.

Trust appeared to permeate all interactions and collaborations from students to administrators with the industry employees. Dhillon (2005) also found that trust must be felt at all levels of the partnership. Trust was evident in this partnership in the words and deeds of the participants. The school evaluator noted that the industry employees were greeted with smiles and handshakes by the students and teachers. Gestures seemed open and welcoming and interactions continued with the same comfortable comradery. To the onlooker, both students and teachers seemed eager to hear from the business employees and to learn something new.

Through each interaction, trust was built for each new participant and trust in the partnership was strengthened.

Commitment in this partnership was mutual. Actions spoke loud and clear on this element in the partnership. The industry partner supported this academy with human power. They chose this academy as a way to give back to their community, and they were there every time that they were called. Alabama Power employees gave of their time, which ensured that the partnership was successful. A company mantra is, "What is good for Alabama is good for Alabama Power." Did company expectations influence the commitment that the employees showed? Were the dozens of employees that participated in the academy service oriented leaders? Or did each employee weigh what they were doing against what they were receiving from the partnership and decide for themselves that it was a win-win situation? It is uncertain whether the reason mattered or that one reason was more important than the other. The employees were there every time that they were needed, and their actions increased the trust level within the relationship, which definitely mattered. The teachers were there every day and worked with outsiders because they believed that it would benefit their students. And the students welcomed each new visitor because the preceding one had enlightened their learning and engaged them in a way that their teachers were unable to do.

The commitment of the employees ranked second next to communication. Commitment was the one element that made this partnership different from most of the other academy partnerships. Employees rotated in and out of the academy with different ways to meet the goals for the day. Every employee came with the same message and high standards. The employee commitment seemed to be an outreach of the company and a personal gift to the students and

teachers. It was believed that without the employees' commitment, the element of trust would not have been a significant positive factor.

Tushnet (1993) established that successful partnerships have effective leaders. She found that leadership in partnerships is usually distributive, facilitative, visionary, or some combination of the three. The Alabama Power Business Academy was fortunate to have a combination of all three types of leadership styles within the same core team as was noted in observations. As new leaders emerged from within the academy, the different leadership styles were noted within the decisions and actions of the new leaders in observations and conversations.

Implications for Practice

While it is true that these findings cannot be generalized, the findings still point to some important possibilities. The participants of this study indicated that early and long-term planning was essential. They took a year to engage in this process. School administrators that want to form school-industry partnerships need to understand the importance of taking time to clearly identify their purpose and to plan how they are going to work to achieve it. Identifying and planning for a shared vision and common goals turned out to be pivotal during the planning of this partnership. Shared vision and common goals drove the actions put into place within the partnership.

Regular and open communication was found to be critical in keeping the partners connected and on-track in achieving their goals. Thus, participants should consider implementing strategies that foster communication within their organization and between the partnering organizations. Identifying a best means of communication was not a goal of this research, but face-to-face communication seemed to accomplish more as noted by teachers and the program manager during observations and in email messages.

Partnerships in-name-only have been formed when money is donated or resources are given with no commitment of time from the partners. In the academy partnership studied, human power commitment to student learning was the greatest asset contributed by the industry partner and the school system considered it an invaluable resource. Thus, it seems wise for those involved to assure that the partnership includes commitment of human resources along with any financial commitments made.

Leadership was found to be a contributor to the overall success of the partnership. Leadership set the stage for everything that followed. Leaders lent their approval, active involvement, and support in order to compel all the parts to work together. The importance of leadership was also found in the literature. Therefore, others who wish to form a partnership should carefully identify leaders who have the capacity and desire to foster the endeavor. As the program manager stated, "Don't just check-in on the partnership, become the partnership."

Future Research

This study was unique in that it focused on a specific type of partnership between a school and an industry. Although it verified some findings that dealt with school partnerships in general, it also uncovered some new and interesting lines of study. School/industry partnerships will probably be on the rise as schools begin to focus more closely on life and career preparation. Therefore, follow-up research on this study might include duplicating it in similar partnerships to determine the degree to which the findings are or are not replicated. For example, in this study, communication and commitment were the two elements most often noted as being of importance. It would be of value to determine if this finding holds true in other partnerships.

The issue of flexibility in plan implementation present in this study was not pervasive in the literature. It would be of value to investigate its importance in other partnership endeavors.

Likewise, the planning process was extensive, lasting over a year. The degree to which this long period had an influence on the success of the partnership bears additional investigation. Finally, it might be of value to develop a survey instrument from the results of this study and conduct quantitative studies that would investigate the perceived degree of importance of each of these elements in other partnership studies. Aside from examining partnership development itself, it might also be a value for those involved in this particular academy to conduct a long-term longitudinal review of study success in careers and college to determine the ultimate value of the partnership.

Conclusion

This research investigated the elements that were perceived as fostering the success of a school/industry partnership. The results have verified some previous research findings and have also raised some additional questions. It was intended that the study would foster increased attention to this topic and would also serve as a catalyst for future research in this area.

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MANUSCRIPT 2: PERCEIVED BENEFITS OF A SCHOOL-INDUSTRY PARTNERSHIP

Partnerships between school and industry allow educators to capitalize on learning opportunities that occur in the real-world setting of a partner's workplace (Watters, Hay, Dempster, & Pillay, 2013). The sharing of knowledge becomes a process in which the school and the business develop and adapt specific content to address the needs of the workplace as it is required for learning to take place in the relevance of the work environment (Watters et al., 2013). Watters et al. (2013) found that the logic behind school-industry partnerships is that the partners can provide "complementary capabilities and competences" in educating students where the school alone has been unsuccessful (p. 3). Strong educational partnerships with industry are specifically needed today as Mills and Whitney (2012) point to the increasing evidence of a skills gap seen in the United States workforce. The skills gap, found in the young adults who lack the technical (hard) skills and the essential (soft) skills that are needed for the available middle-class job openings, creates an imbalance of qualified workers for available jobs (Mills & Whitney, 2012).

For the last two decades, partnerships have been referred to as the cure-all for educational problems (Barnett, Hall, Berg & Camarena, 2005). Educational partnerships have been recommended in federal statutes from the Higher Education Act of 1998 to the Carl D. Perkins Career and Technical Act of 2006 (Barnett et al., 2010). Figgis (1998) found that by viewing educational partnerships as strategic investments, benefits to the industry are amplified. However, he found that most business partners saw their participation as a service investment in their local educational system with no expectation of returns. The companies that made up the cases that Figgis studied were astonished to realize over the course of the research they were in a

win-win situation that reaped a variety of benefits including a clear investment in their future workforce. Figgis reported other benefits for every business in her study to be (a) community recognition, (b) productivity, (c) enhancement of the company's skill base, (d) more efficient and effective recruitment, (e) personal satisfaction, and (f) bottom line improvement. Likewise, the studied partnerships provided many benefits for schools including providing relevant, work-based learning environments where concepts can be applied to real-world situations.

Background on the Partnership

The partnership examined in this research study was a joint project between Carroll High School (CHS) located in the small, rural city of Ozark in southeast Alabama, and the Alabama Power Company. The high school was the smallest 6-A high school in the state with approximately 720 students. In 2012, the school transitioned from a traditional to a technical high school supporting six career-themed academies in addition to a freshman academy. The change occurred when the system leadership realized that the high school was not meeting their expectations for graduation and college completion. The school's previous focus on preparing all students for four-year colleges was missing more students than it was reaching. School data showed that only 35% of graduates went on to college and less than that graduated college on time. The findings also showed that a few students consistently entered the military; others began working for minimum wage with the intention of beginning a two year college the following fall; others "took the year off from school" and usually did not begin college for three or more years – if ever. The data revealed that many students were not prepared for college or career success.

Leaders realized that they were not meeting their objective of preparing students for college, career, and life with the current system of education. They began researching and

visiting other systems that seemed to better prepare their graduates. It became clear that something needed to change for the students of Ozark, Alabama.

Educational leaders met to shape a new vision for education in Ozark City. They spoke to teachers, students, and community leaders to gather perceptions and input. Some visited systems implementing career academies and brought back possibilities. After a year of research, educational leaders broadened their stakeholder discussions. The entire high school faculty was included in meetings and invited to visit a neighboring state's career academies. Two bus-loads of community leaders were also taken to visit the career academies and have lunch with the community partners that supported those academies. Later, stakeholders including parents, teachers, administrators, and community leaders held a visioning retreat.

Shortly thereafter, plans were underway to build a new high school. Based on the investigations into career academies that had taken place, the visioning retreat, and the recognized need to reform graduate preparation, the system built their new high school to support career-themed academies. During the interim period, the high school restructured its instructional program and set up academies within the old high school so that they would already be in place when they moved to the new facility that opened to students on April 1, 2013.

Six career-themed academies were created and added to the Freshman Academy that had been in place for two years. The freshman academy was established to address the high failure rate and discipline incidents that occurred in the 9th grade year. Since its inception, the freshman academy concept improved the promotion rate and lowered discipline issues that began in the freshman year. It became the primary place for career exploration and academy recruitment when the career academies were added. The six academies were The Arts Academy; The Human Services Academy; The Industrial Technology Academy; The Medical Sciences Academy; The

Business Academy; and the STEM Academy (Science, Technology, Engineering, & Math). Six new programs were created to enhance the academies, which were Pre-engineering, Teaching and Learning, Masonry, Criminal Justice, Graphic Arts, and TV Production. All of the academies had an advisory committee and some interaction with industry partners.

A representative from the local office of Alabama Power was included in an academy visit to Florida, where the host high school had a partnership with Gulf Power to support a utilities academy. The Alabama Power Business Office Manager was able to talk with Gulf Power representatives and to see the possibilities that could be gained from supporting a high school academy. Four months after the academy visit, the Alabama Power representative invited leaders from the school system to meet with leaders from Alabama Power to discuss the creation of an Alabama Power Academy at Carroll High School. A core team of three professionals, two from Alabama Power and one from the school system, was created to plan and implement the academy. Alabama Power has referred to the Alabama Power Business Academy as a pilot that may be reproduced at other high schools in the future (Ozark Business Office Manager, personal communication, July 8, 2014).

Officials from Alabama Power committed to provide human and financial resources as needed throughout all aspects of the academy. The officials committed to hosting student field trips and student internships in order to develop their future workforce. In return, the academy carried the Alabama Power name and industry representatives became involved in working on curriculum and providing authentic learning opportunities for students in an effort to prepare them for college and career attainment.

Purpose of the Study

This inquiry was a part of a larger study that looked at multiple aspects of a school-industry partnership through the pilot year of an industry sponsored career academy. The investigation focused on understanding the relationships within a partnership between education and industry through the perceptions and stories of the participants. Multiple methods of data collection were used including pre-existing documents that were contributed by the school system to include student and teacher focus group conversations, teacher interviews, and written student reflections of activities that occurred over the course of the first year. The pre-existing, district-level data shared from the academy evaluation were added to the study's data, which included interviews that the researcher conducted with school administrators and industry partners.

The research questions addressed in this chapter were

1. What were the perceived benefits to participants and the organizations involved?
2. How might the partnership be improved?

In addition to addressing the research questions, another purpose of the study was to give voice to the participants. Increasing voice among the participants in school organizations, such as academies and the partnerships that support academies, expands the concept of distributed leadership and member buy-in among all involved (Mitra, 2007). Mitra (2007) found that students can contribute a unique perspective about opportunities in which they are involved. The school leaders wanted the students and teachers to be represented in the vision for the academy. Their voice in the reflection of the academy partnership was recorded in the school's evaluation data and then shared to become part of this study. Lincoln and Guba (1991) wrote that reality is

dependent on one's perception. Therefore, this study incorporates the perceptions of the participants – every participant group contributed their voice.

Methodology

The methodology combined multiple methods of data collection to acquire valid and reliable (Lincoln & Guba, 1991; Merriam, 2009; Yin 2014) information on the educational partnership on which the study focused. The research design engaged two of the four types of triangulation recognized by Denzin (1989). Methodological and data triangulations were used in order to attain a thorough and credible understanding of the benefits of partnership from the different perspectives of those who lived it. Investigator and theory triangulations were not used as there was only one investigator and the study was inductive, not deductive, with theory building occurring through the process of data analysis and interpretation (Dhillon, 2013). Triangulation was used to check and establish validity by analyzing each research question from multiple perspectives.

Methodological triangulation:
**Interviews*
**Observations*
**Archived documents*

Data triangulation:
**Company employees*
**School administration*
**Teachers*
**Students*

Research methods used included interviews and document review. This study was comprised of three formally scheduled meetings with company employees and school administration. Informal conversations between the same participants and the researcher occurred throughout the school year on nine different occasions. Pre-existing data which received analysis and interpretation through the lens of emerging findings included transcripts of observations, student and teacher focus groups, and teacher interviews generated by the career academy director for evaluation purposes. Student

reflections on presentations and events hosted by the industry partners were also pre-existing data reported through this study. Copies of transcripts and reflections were made available to the researcher, void of any names or identifying tags. Transcripts of core partnership leaders from both the school system and the industry along with the pre-existing document transcripts, allowed me to triangulate multiple perspectives including those of the students and teachers on the two research questions addressed in this manuscript. Other pre-existing documents that supported the partnership and provided insight into the thought processes and strength of communication and expectations that were applied to this partnership, but were not used for quotes in the text of this manuscript included partnership literature, such as flyers, registration guides, informative brochures and memos, emails and meeting minutes. Data gathering continued until saturation was reached confirming my interpretation without providing new discernments (Creswell, 2007).

The semi structured interview method was used for addressing the research questions, yet providing sufficient flexibility for discussions that developed around the participant's worldview on the topic (Merriam, 2009). All interviews were audio recorded, after obtaining the informed consent of each participant, and then transcribed by the researcher. During each interview, the researcher took field notes of any emphasis that the interviewee placed on spoken words, facial expressions and noted non-verbal communications. All interviewees were offered their transcriptions via email by which to comment or clarify any point within the conversation. This member checking led to respondent validation of the study and was defined by Lincoln and Guba (1991) as "the most crucial technique for establishing credibility" (p. 314). It was used as one way for participants to ensure that the voices heard through this research were as intended by the speaker.

The interview transcripts were systematically analyzed using open and axial coding, which was developed by Strauss and Corbin and discussed in Creswell (2007). The coding was used to identify, categorize, and confirm themes that detailed the basis of the partnership and described the characteristics that illustrated benefits, strengths, and sustainability therein.

Findings

The concept of value-added is a strong motivator to partners within partnerships (Dhillon, 2005). Dhillon (2005) studied the idea that through partnerships with others the achievement and success of the individuals are much greater than working alone. The participants within the academy partnership studied, agreed with Dhillon's finding. The data showed participants perceived many noteworthy benefits attributed to the school-industry partnership as a whole instead of any single participant. Although the topics were varied, four main categories immerged. The four categories of perceived benefits are (a) Curricular Relevance; (b) World of Work; (c) Essential Skills; and (d) Industry. The partnership seemed to encourage its members to share information and expertise with one another.

Perceived Benefits Connected to Curricular Relevance

Carroll High School decided to structure classes and pathways of learning around career-themed academies because they believed that providing career interest to all subjects would promote students to become more engaged in all classes by seeing the relevance of what they were learning to what they would do beyond high school. Thus, an expected outcome of the partnership with Alabama Power was that it provided relevance to classroom learning through the mentorship of people in the workforce. It appeared that this benefit ensued from the implementation of this endeavor. A

Alabama Power is a company where you can learn and grow.
- Student

student summed it up in a focus group conversation:

> I think that having the business partners come in regularly to talk about their work experiences made school more relevant.

A teacher confirmed this prediction in her conversation:

> This partnership makes students see things as they are in the professional world, rather than the educational environment. Our partners provide relevance.

Regular exposure to multiple partnership activities seemed significant to student engagement in the academy and seeing relevance in what was learned at school.

> They [Alabama Power employees] also drive home why what we are learning in school is important! The more I am around them and hear them, the more I get it. - Student
>
> I listen better when employees from Alabama Power are here showing it from their point of view…sure our teachers tell us the same things, it just seems more important, front line, when the people from Alabama Power come in and tell us. – Student

Students in all focus groups reported that the business partners stressed the importance of high school subject knowledge and maintaining good grades. The partners explained how both would positively influence the students' futures. So, students reported that they were trying harder in their core classes to attain higher grades and think a little deeper than before, because, they understood the importance of it all.

An unexpected result credited to this partnership was that students reported talking to their parents and counselors more about their plans for college and work. Examples of this came from student focus group and teacher interview transcripts.

> I think that working with the people from Alabama Power has made me talk to my mom more about what I want to do beyond high school. I see the possibilities. – Student

> I talk to my parents more, too, but about college mostly and the things I think I'll take. – Student
>
> When my mom asks me what I did at school, I have more to talk about. – Student

A teacher commented on the fact that she had received more positive feedback from parents this year as opposed to previous years. Here is one example:

> A parent stopped me in a store to tell me that she was not sure what we were doing at school this year, but her son was coming home excited about his day and what he was learning from business and industry people. It had given him a new outlook on what he was learning and he could finally communicate the relevance of the things he was learning. – Parent comment via Teacher
>
> I think if we learn what [the Alabama Power Employees] are telling us now, we will be ahead of others, and we will know so much more than other people competing against us for jobs. – Student

Data from this study suggested that the partnership with professionals provided motivation and a better understanding of what is expected of entry-level employees. The students and teachers talked regularly about how learning seemed more relevant and interesting when delivered by someone from the workforce. Students began to see the connection between what was going on in the classroom and their interest for future employment.

> Speakers from Alabama Power come in and talk about real world experiences and opportunities. I think they will prepare us in a way that school cannot. - Student

Perceived Benefits Connected to an Enhanced Understanding of the World of Work

The core team predicted that the partnership would provide information and experiences for students and teachers that connected them to the world of work. Career exploration was a

major goal of high school so that the world of work would not be so unknown and daunting for students when they are faced with the choice of what they want to be and where they want to work. The Alabama Power Company appeared to be an excellent choice in an academy partner because it does not focus on just one type of job; Alabama Power requires many varied workers and skill-sets to fill a number of jobs in order to keep the lights burning. The versatility and job experiences that each employee presented to students provided students with knowledge to make informed career choices and acquire the capacity to transition into those careers successfully.

> I used to think that Alabama Power was all electrical…I am learning that it offers me more…I can be anything in Alabama Power! - Student
>
> Originally, students thought of Alabama Power as climbing poles and working with electricity. Many thought, "Why would I be interested in that?" The Alabama Power employees came and talked about the different jobs that are a part of Alabama Power. Now students see that there are other jobs in nursing, business, engineering, and they are interested! The job opportunities are endless. -Teacher
>
> College and career ready has been something that our teachers have mentioned, often, but it makes sense now that we hear it from the business world and see it in action. – Student
>
> When the ladies from the business office came in to show us how they use spreadsheets in their job, the lesson became something that I need to learn because I will use it one day. – Student
>
> The marketing presentation stressed looking your audience in the eye, speaking clearly and slowly, and dressing and acting professionally. – Student reflection
>
> The marketing presentation taught us that planning is a very important stage in all we do. I don't believe any of the students were fully prepared to market something as big as our

robot, so the advice during our planning stage was extremely beneficial – Student reflection

We have experts that come in and bring real life experiences to the kids. - Teacher

The students see that what they are learning is applicable to their future work. - Teacher

The influence that the partners had on the increased number of students credentialing in Microsoft Office Suite, an opportunity provided by this career academy, was not predicted. The industry partners value credentials in their employees and spoke about them regularly to the students. Their interest in credentials was addressed in conversation with students by the industry partners.

By working hard and obtaining the credentials that are available through my courses, students can get a good job with a good future. Alabama Power employees have reinforced this by sharing stories from their work of hiring people with high school diplomas and credentials, and then providing on-the-job training and growth incentives. – Business, Marketing, and Administration Teacher

From working in Human Resources I realize that people can put on an application that they are proficient in Microsoft Word and Excel, but what does it mean to be proficient to that one or that one? If they have a Microsoft Certification, that means something. I know what to expect from someone with the industry certification. I told them how important it was to an employer if you could provide a certification. – Program Manager

The teachers appreciated the attention that the industry partners gave to the importance of credentialing. This appreciation was talked about in observations and in interviews.

> We want [our graduates] to go to college if that is what they want, but either way, we want them to be work ready with skills and credentials that matter. I think my students understand that now through their involvement with the academy partners. – Teacher

Students talked about the role that the partners played in encouraging them to credential.

> [The Program Director] talked to us about the importance of credentials every time she spoke to us. – Student
>
> Our teachers encouraged us to earn credentials all the time; the partners supported that message every chance they got. – Student
>
> I think that I have tried harder to obtain more Microsoft credentials because the Alabama Power employees have talked about the job-landing power in them. – Student

The research data supported what the participants discussed at the end of the year. Students in the Alabama Power Business Academy earned more than three times the number of credentials than the previous year's business program students. Two of the students earned the credential of Microsoft Office Specialist Master, which was the highest level of Microsoft Office Specialist (MOS) certification offered. Having dedicated, persistent adults who regularly and firmly reinforce the importance of completing tasks, such as credentialing, with their own experiences and work related examples, was a definite advantage of the school/industry partnership.

Another benefit to consider was the influence that the industry partners had on student behavior outside of school. Students regularly mentioned that the partners talked about requirements for being hired, which include basic skills, police reports, drug testing, and credit reports. Many students did not realize that employers check this information on employees. Awareness may prevent students from getting records because they realize that it does matter to employers. Thus, the partners provided a stimulus that engaged the students in reflective

processes. Students began to think more about their past behaviors and the importance of making the right decisions in a timely manner. They were able to imagine themselves in situations that were never before seen as possibilities. They also recognized potential losses due to bad behavior. One teacher stated that she saw students who developed bigger dreams due to the possibilities that the industry partners presented to them.

> We don't get a lot of experience at school as to how it is on the job. I feel like we are the future of America and this is an outstanding privilege to be a part of the business world now through our Alabama Power partnership. – Student

Perceived Benefits Connected to Essential Skills

Knowledge and skills needed to succeed in college and in the labor market take precedence in the education of a high school graduate. Teachers taught employability skills, which will be called essential skills in this paper, and planned opportunities for students to use them regularly throughout the high school experience. The more that students practice essential skills such as decision making, trustfulness, work ethics, and flexibility the better they work and are identified as leaders. The frequency of the use and application of essential skills within this school-industry partnership was an unplanned bonus for the students and teachers. An administrator who interacted regularly with the students participating in the partnership stated that she believed that the attainment of essential skills was the absolute best result to come out of the interactions.

Local business and industry representatives often complained that students did not know how to talk with adults and did not know what was expected of them in the adult world. So, regular practice with essential skills was a tremendous benefit provided by the partnership. Teachers and administrators felt that students leaving this academy interacted with confidence

and better understood what was expected of them in the workplace. The school's goal was to reproduce these interactions within other academies. Students have noticed the benefits of being exposed to regular interactions with business representatives, too.

> School feels more professional when our Alabama Power partners are here. - Student
>
> I think professionalism is something that should be exemplified in education, every day, all the time. - Student
>
> I think that the partnership has taught me the power in first impressions. A smile and a firm handshake can set the tone for business and how your associates view you. - Student
>
> Communication and presentation are things [the business partners] talked about often. You have to be able to communicate with a wide variety of people and to present yourself and your ideas in ways that interest others. – Student
>
> I learned [from the regional director's motivational speech] that no matter if I do the right thing, it means naught if I did not have the right attitude to go with it. – Student reflection
>
> I am looking for more ways to bring in Alabama Power employees, not just as speakers, but to do things, interact and model professional attitudes. Students get to see how professionals interact and work with others when they are working beside the employees of Alabama Power. – Teacher
>
> We know that you cannot tell someone to do something right and expect it to be learned. They have to see it in action and to understand why it should be learned. – Program Manager

A history teacher reported that after a visit from Alabama Power employees, a student came to her class and commented that he had never been around people that spoke like the people from Alabama Power except for his teachers and, with them, it was different.

The two networking luncheons that Alabama Power sponsored were the most memorable moments for many - students, teachers and administrators. Two Alabama Power employees came to the school prior to each event to go over rules of etiquette and how to professionally network at a social function. They discussed with students how to dress and mingle, and how to eat at a formal affair. The students asked questions, created a Google document of additional questions and the two ladies from Alabama Power answered every question. A teacher remembered

> On the day of the luncheon, the students were bundles of nerves. We had it in the upstairs conference room at a local bank. When the bus load of students arrived, they were greeted by about 30 employees of Alabama Power and the local community. The students were to walk around introducing themselves and carrying on conversations with as many adults as they could in the 30 minutes prior to the meal. You could see them relaxing as time went by, then they tensed again when it was time to sit down and remember all that they had learned about table etiquettes. By the time we reloaded the bus; the students had a new sense of confidence in their practiced communication skills. - Teacher

The same teacher later commented

> A board member and the mayor who had both attended the luncheon stopped me in town to talk about how much they thought about the networking luncheon experience and how beneficial they felt that it was to the students. - Teacher
>
> Employees of Alabama Power who were at the networking luncheon from different areas in South Alabama talked about how they wished their children at other schools could experience this learning opportunity. – Business Partner

The week following the first networking luncheon, a student who participated was asked what his most memorable activity in the academy had been. His answer provided poignant insight into the influence that the partnership had on his life.

> I have enjoyed meeting all the people from Alabama Power and learning what they [came] to teach us. Right now, the thing that I think I have learned the most from is the networking luncheon. Because I learned to eat! After seventeen years, I thought that I knew how to eat. But the ladies taught us a lot and then we dressed up and practiced what we learned. My family was so excited that I taught them how to eat the next day. We practice what we learned almost every night now, together. - Student

During the year-end evaluation of the partnership, a teacher related to the recorder,

> We were all most impressed at how Alabama Power partners realize the importance of developing the whole student and worked to help us do it, not just focus on office skills and knowledge. - Teacher

This comment resonated with the school faculty and administration. Alabama Power seemed to come to this partnership committed to do whatever it took to succeed, including attending to the broader view of student development. This commitment was found in every employee that came to share with the students. Students benefitted by wanting to succeed, having a bigger picture of success, and knowing that more than just their test scores were deemed important.

> Employees with Alabama Power have shown us the technical aspect of the business. – Student
>
> They are preparing us for business no matter where we go. - Student
>
> I am excited about the Alabama Power partnership and expect it to grow. - Student

Perceived Benefits Connected to Industry

Research has shown that educational partnerships enhance classroom opportunities for students and afford teachers and business partners with chances to develop new skills in new ways (Dhillon, 2005; Tushnet, 1993). When investing time in schools, partners never know what to expect, the challenges are motivating and the results are rewarding. The benefits to industry that were identified in this study included employees shared and grew from their interactions with the students; employees addressed the company's focus on education when they provided an educational service to the community through their participation in the Alabama Power Business Academy; employees invested in the future of Alabama when they invested in its students; and this partnership allowed employees to developed the future workforce.

When the Alabama Power business representatives were asked why they chose to participate in this educational partnership, they gave the following answers:

> This is a win-win project! We involve our employees because it is developmental to them. When we bring someone in for a specific task, they are the best to ask. Often, they have never shared what they do before coming to the school. As with the office ladies who came to share Excel with the students, one has since taken on a new role and additional responsibilities and I think that the presentation to the students was a pivotal moment for her. We know the value of interacting with others…now we have a place for many of our employees to share and grow. This partnership is certainly a win-win project. – Program Manager
>
> We want to be the support that our community needs. When we strengthen our communities, it strengthens Alabama Power Company. – Business Office Manager

It [the academy partnership] fits the bottom line and our focus on education. We are a company that wants to see things better for our communities. The career academy is just one way to do that. We want to assist in any way that we can. If someone is doing something good in our community, we want to be onboard! – Program Manager

A little later, the Business Office Manager commented

I believe that more than anything, you can never go wrong when investing in the future. When you are investing in students, you are investing in the future and you are not going to go wrong. - Business Office Manager

The academy concept was innovative, and we knew that we could not go wrong partnering with you. Although we did not know what it would entail or how we would contribute; we knew we were in before we committed to it. We thought if this turns out great, then we are so excited to be onboard. But if this has to have a few bumps before it is great, then we are there, too. – Program Manager

When asked what benefits they have received from the partnerships the two core partners replied

We always hear about the 'bad kids.' We always hear how teenagers today have no drive and they just don't care. Our employees that participated in the luncheon walked away saying that not any of the kids at the luncheon were 'bad kids.' The academy kids aren't like that; they have drive and determination to achieve. It is kind of like the butterfly effect; with just a little push we can give them the wings that take them forward. – Program Manager

I can echo that, we hear that kids are bad and are about to run the future into the ground. From my interaction with the academy, I can say that we are in good hands. These students are great! –Business Office Manager

> When I became a new employee of Alabama Power, I was told that this company was great before you came on, don't mess it up. I thought about that as I interacted with these students, the world was great before they came along and they are going to keep it that way. Our future is in good hands. These kids will invent and think of things we never could. We are in good hands. This was the "ah-ha moment" for me. You don't hear about the good. Good doesn't sell papers. But our kids are good. There are some bright minds out there, we don't ever hear about. –Business Office Manager

At one of the luncheons, I asked an Alabama Power employee from a nearby city why she decided to participate in the luncheon? She replied

> I heard about this opportunity and wanted to see what the academy was all about. Now, I wish my office could partner with our local high school in this way. Everything that the students at my table told me was amazing. I am so proud to be a part of a company that means so much to students!

Later, she stated that she believed that her investment in the networking luncheon was an investment in education and an investment in the future.

Possibilities for Partnership Growth

Throughout the implementation year of the academy, the school administration and teachers asked students to provide input by reflecting on activities, speakers, and solutions to the regularly asked question, "What do we do next?" A major emphasis in academy building is to generate pride and belonging to the group. Students and teachers who were asked their opinions and then saw their voice create change in the process seemed to become active in the change initiative. A natural question for the evaluation team to ask at the end of the implementation year

was, “How would you like to see the partnership grow?” The following are some contributions from teachers.

> I would like for Alabama Power employees to come in for more activities like they do for the networking luncheons to model professionalism and community service to our students. – Teacher
>
> I think that the mock interviews that I normally do with my students would now mean more if Alabama Power employees are a part of the panel. – Teacher
>
> I would like for different partners to come in when we are doing specific projects and teach the lesson instead of telling us about how they use the tools we are learning to use. I would like to see them take on the mentor role, because our students seem to enjoy that interaction the most. - Teacher
>
> The kids have enjoyed the learning WITH the business partners and they talk about those experiences more often. So, I think we need to do that more. - Teacher
>
> The students have really benefitted from this partnership, and that is why we are here. The only change I would like is more of the same. - Teacher
>
> I am looking for more ways to bring in Alabama Power employees, not just as speakers, but to do things, interact and model professional attitudes. Students get to see how professionals interact and work with others when they are working beside the employees of Alabama Power. – Teacher

When the students were asked if they had any ideas for growth or improvement for the academy partnership, they shrugged their shoulders and shook their heads. One student volunteered

> Everything that we did this year has been great! I still want to do the field trips, the motivational assemblies, the lessons on Excel and business etiquettes…and especially the networking luncheons, but I would like to add even more. – Student

Another student commented,

> I feel like this is the first year of the Alabama Power Academy and the prelude to what is to come. It is hard to predict what is to come, or to suggest things to change. Right now it is still too new. It is doing - hands on, learning by doing. I don't want to change that. – Student

The core team members from Alabama Power talked with the researcher about how they would like to see the partnership grow and change. The program manager stated that it is hard to say how we would like it to change, because it is always changing. Everyone agreed. Then, she thought about it and quantified

> I think I would like to grow this across academies. We had one young lady that was in the STEM Academy and the Business Academy. She came to several of the events in the Business Academy. I would like that to happen more. If we can influence more students in different academies, I would like to grow in that direction. – Program Manager
>
> I would also like to bring people from other divisions who have ties in this area back to speak on their life experiences. We have some very interesting employees that can really aid us in what we are doing. We can reach farther within our company for resources. – Program Manager
>
> I think that we need to document the partnership more through pictures, videos, and news articles. That way we could recapture the events. – Business Office Manager

> I would like to see Alabama Power influence other businesses to partners like this in a career academy. They may not be a full sponsor, but a partner in the learning. Every business will bring something to the academies that none other can. I would like to increase participation in the academies for the sake of the students. – Program Manager

Discussion

The purpose of this study was to discover the perception of benefits to participants and organizations involved. The benefits were related through the voices of the participants. Every participant group was given voice in this research. Students, teachers, administrators, and business partners shared their perceptions on the benefits of the partnership. This inquiry also pursued possible growth ideas for the academy partnership.

An educational partnership provides learning benefits to its participants by offering pathways that are seen as engaging and relevant to life beyond high school. School/industry partnerships keep educators up-to-date on how workplace skills and needs continually change. Workplace learning also provides a more flexible educational experience that values innovation and creativity. When we learn, we infer, transform, and produce applicable, cultural, and career-ready systems of knowledge with significant grown-ups and peers. We learn from people, with people, and through people. School/industry partnerships grant learning opportunities that are not limited to the usual constraints of school time and space. When learning happens in real-world environments with real-world people, the learning becomes relevant life experiences. Student reports of increased motivation to learn in core and career classes possibly occurred because the partnership, unlike traditional school opportunities, provided access to the real world. These activities and experiences motivated students to understand and learn because it seemed relevant to their futures.

Participants asserted that the partnership provided relevance to classroom learning. Business partners easily drew clear connections from what students were learning in school to how it would be used in the world of work. Students talked openly about how what they were doing in class made sense to them as far as why they needed to learn it. This impact may have occurred because interactions with business partners provided a connection to the real world that motivated and clarified learning that under regular classroom circumstances may have felt disconnected for students. Career and Technical Education (CTE) was reported to add relevance to learning in core subjects. Taking into account the number of visits by industry partners, field trips and the networking luncheons, this research indicated that the level of benefits realized by students correlates to the amount of exposure to industry partners and partnership activities that connects the relevance of what is learned in the classroom to the real world. The academy director commented one day that the teachers and students were noticing that everyone from Alabama Power spoke the same language and walked the same walk. Everyone from Alabama Power that visited the classrooms shared the same message - it was a powerful teaching tool.

Table 13

Perceived Benefits Reported by Participants

Curricular Relevance	World of Work	Essential Skills	Industry
Students view school as more relevant	Students learned real-world work skills	Students learned employability skills	Employees shared and grew
Students tried harder in school	Students explored a wide variety of careers	Students practiced professionalism	Employees addressed company's focus on education
Students talked to parents and counselors more about their plans for the future	Students clarified college and career readiness	Partners provided authentic audiences for communication and presentations	Employees provided an educational service to the community
Students talked more to parents about what happened at school.	Students engaged in a reflective process on their choices	Students learned the power of first impressions	Employees invested in the future of Alabama
Students engaged in thinking and learning	Partners provided work perspective to classroom projects	Students gained confidence	Employees and teachers developed the future workforce
	Students increased attainment of Microsoft credentials	Students learned the importance of networking and 'how to.'	
	Student behaviors improved outside of school	Students learned and practiced etiquettes and essential skills.	

The greatest and most unexpected result of the partnership was the growth in essential skills that was seen in the students. The teachers and administrators reported that the students exhibited the greatest increase in confidence, communication skills, employability skills, and understanding of why the essential skills are important as compared to previous year-end results. This outcome could be described as inevitable since a multitude of professional adults spoke with and worked with students on a regular basis. Regular practice with essential skills with adults through professional interactions would logically lead to students acting in confident, professional ways. The program manager was observed by the researcher and described by a teacher to be comfortable correcting minor mistakes in communication and explaining the expectations in the professional world. The students seemed to respect the program manager and

the other employees that worked with them. Their respect led them to emulate and work to meet the expectations of the business partners. Therefore, implications of this finding are that knowledge in essential skills transfers to students in regular, professional interactions with industry partners within a school-industry partnership. The teaching of essential skills became a regular conversation among teachers and administrators. It was believed that essential skills were important enough to be evaluated, so CTE teachers worked with their administrator to develop a rubric to assess workplace skills in students. The Workplace Expectations Scoring Guide that was created during the implementation year is slated to be implemented during the next school year (Appendix 4).

Students and teachers believed that the partners influenced the students' acquisition of industry related credentials. This result could be due to the fact that the program manager made it her mission to discuss the importance of credentials each time she talked with students. Other employees talked about the job-embedded credentials earned and the increase in salary or position that resulted. When something, such as credentialing, has attention called to it regularly it gains the students' attention. When told over and over that it is an irrefutable accomplishment that will positively affect your future wage earnings, it is understandable that students would devote more time to earning the credentials. The credentialing attainment of the participants affirm the maxim that the more you hear something from people you revere, the quicker you learn it - or believe it - and then act on that learning.

Students, in grades ten through twelve, reported that they had talked with their parents and counselors more this year than ever before about their plans for college and work. This benefit was a result of engaging students in learning and providing them a believable picture of what they could do. When students were exposed to life beyond the school walls, they began to

understand what was important, and to plan what they would do in order to navigate previous insurmountable barriers. It was also believable that if students were talking more about their future in school, they continue that discussion at home. Simply talking about college does not guarantee that it will be attended; however, without such discussions, it would be hard to imagine that a commitment to attend college would likely occur. Therefore, the number of students that stated they were talking about college with counselors and parents was a positive accomplishment of this partnership and an essential first step for the students.

The data spoke to the fact that students need high levels of exposure to industry partners to increase their interest in school and in their future. Students reported that they could see the connection between what they were learning in school and where they will go in the future, because of the association with business partners. This benefit likely occurred because the partnership experiences, unlike the traditional school activities and curriculum, afforded a link to the real world that motivated students who may feel marginalized otherwise. Watters et al. (2013) found that partnerships that provided students with both in-school and work-based-learning experiences could significantly enrich learning results and aid transition into a related career. Partnerships, such as this one, also assisted students in understanding expectations and industry culture.

A noted benefit to both organizations was the opportunity to self-reflect and to ask how we can become better. Self-examinations set up a system for examining different ways of relating to internal departments, external partners, and the community. A partnership can be a medium for institutional reform and/or partnership improvement.

Implications for Future Research

Future research of this academy partnership is needed. A study over multiple years to include quantitative data is encouraged in order to add the statistical data of participant test data to the perceptions of the participants. A longitudinal study of the partnership to determine whether facilitating factors, benefits, and outcomes are maintained or differ is recommended.

When other school partnerships are formed with this particular industry, year one implementation research would be a good comparison to this study. Did another school-industry partnership yield similar results in participant perceived benefits? Was there a dramatic growth in essential skills development as seen in student behavior by teachers and administrators? What will the partnership look like over an extended period of time?

There is a need for more qualitative research on school-industry partnerships. Not all partnerships are the same, so it is recommended that researchers look at the differences. Much can be learned from the differences discovered in partnerships.

Conclusion

The language of partnership is powerful when implemented in practice. Benefits seemed to abound for participants of this academy partnership. Everyone spoke of benefits that they personally received from their participation. The voices of participants were powerful and told the story best. The benefits were reflected and reinforced in the stories by others, too. An educational partnership was seen, through this study, as building relationships to educate the youth of a community. The value added idea of partnership was clearly understood through the voices of the participants in this study. A couple of closing remarks from students in this partnership and one from the program manager:

I would like the Alabama Power employees to know that I really appreciate what we have seen so far, and I appreciate the time that they give to prepare us for what work is like. - Student

It is an outstanding privilege to be a part of this academy. - Student

This is a sustainable, continuing project for Alabama Power as long as Carroll High School feels that we are valuable. It is worth continuing. – Program Manager

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MANUSCRIPT 3: A CONCEPTUAL FRAMEWORK FOR EDUCATIONAL PARTNERSHIPS

Researchers agree that one of the critical challenges looming over secondary education is the need to guarantee learning opportunities for all students that will prepare them for the workforce and transition them into a high demand, high wage career (McIver & Farley, 2005; Tushnet, 1993; Watters & Christensen, 2013). One way that educators resolve to meet this challenge is by creating partnerships with businesses and other community organizations (Bottoms, 2012; Castellano, Stringfield, & Stone, 2003; Griffith & Wade, 2002). Over a decade ago, Tushnet (1993) found that educational partnerships with industry connect students to the world around them, to their community's resources, and to the careers to which they will soon embark. Watters et al. (2013) discovered that the hands-on learning, associated with career and technical education, engaged students while also reinforcing conceptual understanding, but more importantly, their research showed that the "[e]mbodied and embedded knowledge" (p. 5), has more value when it occurs in the workplace. This meant that working on real problems in real job environments made learning more relevant. These researchers also discovered that such experiences enriched learning results and prepared students to be knowledgeable, skilled workers.

Educational Partnerships Defined

Cardini (2006) defined partnerships as fundamental collaboration between at least two organizations for a joint purpose. Billett, Ovens, Clemans, and Seddon (2007) described educational partnerships as a strategy by which to comprehend and tackle concerns for building social capital. Educational partnerships with business and industry have existed for decades (Watters & Christensen, 2013). They were found to be "complex and varied" (Cardini, 2006, p.

398) and challenging to develop and sustain. Watters et al. (2013) discerned that opportunities in the workplace environment, although difficult to maintain, enriched learning results and prepared students to be knowledgeable, skilled workers. Billet et al. (2007) also cautioned on the complexity and challenges of educational partnerships. Researchers suggested that a partnership should be regarded as a process rather than an event (Barnett, Hall, Berg, & Camarena, 2010; Grobe, Curnan, & Melchior, 1990).

Most partnerships are developed through trial and error, and no two partnerships are exactly the same in the manner in which they are enacted or sustained (Tushnet, 1993; Walters & Christensen, 2013). This diversity requires differences in the conceptualization and operation of partnerships.

Diversity in Partnership Arrangements and Frameworks

Cardini (2006) identified three types of partnerships in education: (a) inter-agency collaboration around a common problem; (b) collaboration between organizations and/or their specific agents to promote best practices; and (c) collaboration between public buyers and private providers. Cardini's partnership types hold distinct purposes and structures; therefore, they must be validated and analyzed differently.

Intriligator (1992) presented an organizational framework by which to establish and evaluate the success of educational partnerships. She wrote that partnerships are markedly different, but proposed seven features of educational partnerships that can be analyzed and described on a continuum as cooperative, coordinative, or collaborative. The seven concepts in her framework are (a) interagency objective(s), (b) interagency policies, (c) interagency structure, (d) personnel roles, (e) resource allocation, (f) power and influence, and (g)

interagency relationships. Successful partnerships occurred when collaborative conditions are achieved in several of the seven areas.

The continuum presented by Intriligator (1992) described cooperative partnerships as autonomous, short-termed arrangements where specific goals were accomplished. Coordination partnerships are intermediate or long-term arrangements to address tasks that are moderately complex; and collaboration partnerships are long-term, complex arrangements that address goals that require the collaboration of partners to achieve. She wrote that interagency objectives must be scrutinized in terms of 1) the amount of time needed to realize the goal; 2) the complexity of the objective to be accomplished; and 3) the extent to which the objective can be accomplished by the school and one or more interagency units. When objectives are analyzed during the planning period, the type of partnership needed is determined.

More recently, Barnett et al. (2010) stated that it was hard for a partnership model to portray all that partnership encompasses. The researchers described partnership development in three parts. The first facet of partnership development detailed was the level of involvement into the process that all partners give. The level of involvement described began with simple support, and then moved to cooperation to achieve goals, with shared decision making. If the partnership is strengthened and sustained, the final level of involvement is more complex and is identified by true collaboration between the partners. The second facet of partnership development discussed by these researchers was the structure of the partnership, which began with the simple and moved to moderately complex and finally complex and intertwined. The third and final aspect of partnership development identified by Barnett et al. (2010) was the level of impact of the partnership in achieving its goals and objectives. The level of impact answers the question: "How did the partnership change the process or the program?" The impact was conceptualized as

a hierarchy moving from simple results; to changes in management and leadership procedures; then "systemic educational improvement, and policy formation" (p. 16). Barnett et al. drew a typology of partnerships that closely aligned the three typologies presented by Grobe et al. in 1990.

Educational agencies were encouraged by Barnett et al. (2010) to evaluate the interdependence required to achieve the goals set forth in a partnership. The researchers referred to the concepts of cooperation, coordination, and collaboration which were described by Intriligator (1992) as a way to measure the interdependence needed for each partnership. Barnett et al. (2010) proposed four partnership models in their conceptual framework on partnerships. If a school had the resources needed to achieve their goals in certain areas, then the simplest way to address it would be independently without forming a partnership. The simplest model proposed by Barnett et al. was the vendor model, which occurs when a school or school system contracts with an organization for a specific service or training. This type of enterprise usually reflected a short-term cooperative or coordinative relationship. Once the contract was fulfilled, the vendor and the school could either terminate the association or advance to another model of partnership.

Another partnership model was the collaborative model. It involved an "intensive and sustained mutual exchange and benefit" (Barnett et al., 2010, p. 25). The researchers described the goals and objectives within the collaborative model as more complex and the partners as being intertwined in the process. The linking agents in the partnership must establish credibility and trust within their own organization because they are often asked to make commitments that must be honored for the length of the partnership.

The next model discussed was the symbiotic partnership model, which depicted a relationship between two organizations that transcended mutual gains to an increased production

of benefits for all participants. This model has a vision, shared goals, and individual objectives linked with each partner. A dependency on the participants defined this model as well as the collaborative model. Barnett et al. (2010) described the goals in this model as "extremely ambitious, yet somewhat ambiguous" (p. 27). A symbiotic partnership may employ a staff by the partnership, whether on loan by a partnering organization or recently hired, their primary duties are to the partnership.

The fourth partnership model proposed by Barnett et al. was the spin-off model, which occurs when the partnership between a school and an outside organization gained momentum and generated enough activity so that it was able to become a viable, new organization that separated from the original partners who formed it (Barnett et al.). A pictorial view of the framework for partnership provided by Barnett et al. is shown in Figure 5.

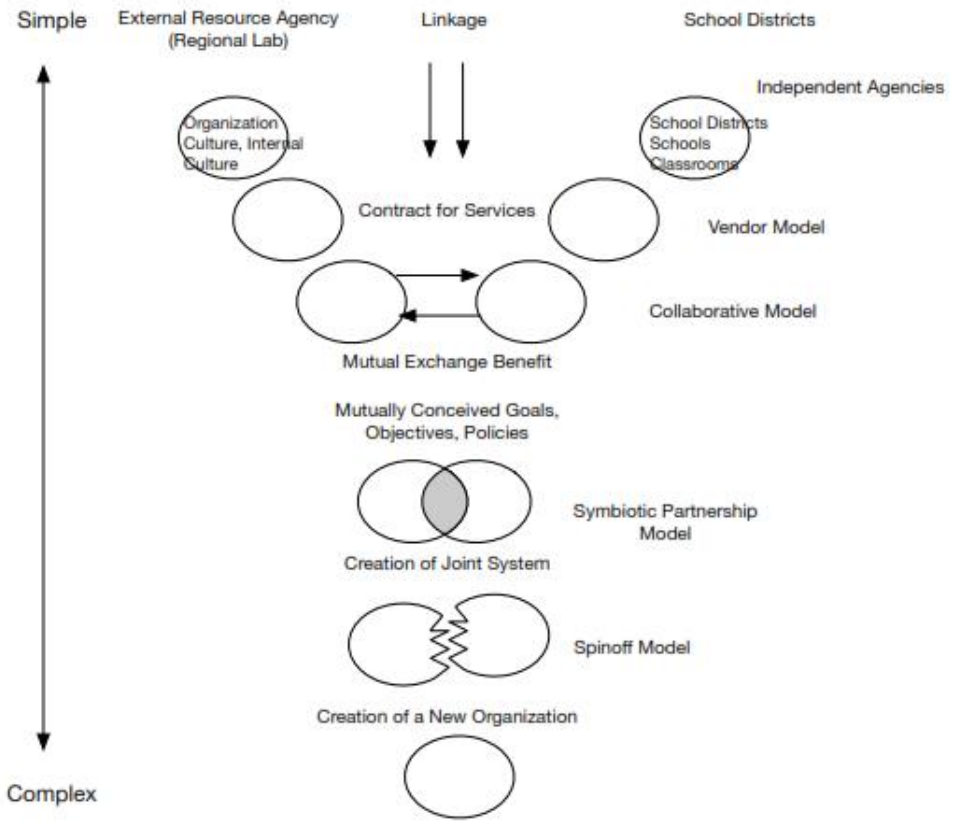

Figure 5. Adapted from the conceptual framework proposed in "A typology of partnerships for promoting innovation," by B. G. Barnett, G. E. Hall, J. H. Berg, & M. M. Camarena, 2010, *Journal of School Leadership, 20*, p. 23.

Purpose of the Study

This was part three of a study whose primary purpose was to examine educational partnerships between a school and an industry through a case study design. The first part of the study sought to identify the elements that foster partnership development. The second part examined perceived benefits of the participants. This phase of the study sought to develop a conceptual framework that would describe the manner in which the partnership was operationalized and to compare the reality of this partnership with the conceptual framework created by Barnett et al. (2010). The purpose of this analysis was to aid the field in the further development of our understanding of how school partnerships are created and sustained and to

provide practitioners with a real-world description of the process which may assist them in creating and enhancing similar partnerships. It was hoped that the model, or framework, would be a guide for other partnerships to use to evaluate their progress from simple to complex.

Significance of the Study

Educational partnerships have been hot topics in popular, political, and professional literature (Baker, 1994). Partnerships have also been promoted in policy and legislation as seen in the Carl D. Perkins Career and Technical Education Act of 2006, the Higher Education Act of 1998, and the re-authorization of the Elementary and Secondary Education Act (Baker, 1994; Barnett et al., 2010). The U. S. Department of Education promoted the implementation and sustainment of partnerships with grant programs (Baker, 1994). This research detailed the processes and structures of a school-industry partnership through the end of year one. It developed a conceptual framework by which to navigate as a roadmap for others who may attempt to implement similar partnerships. This study of school partnership with industry provided insight and best practices from which to build future collaborations for the sake of children.

Methodology

A literature review on educational partnerships and conceptual frameworks of partnerships was conducted in order to compare what occurred in this research to what had happened previously in order to create a conceptual framework for identifying the stages and growth between partners and the elements that fostered that growth. I analyzed previous author's conceptual frameworks for partnerships and tried to use them as a foundation for the present partnership. A number of changes were drafted in the conceptual framework proposed in this

manuscript to include the addition of the six facilitating factors for success.The research question addressed in this manuscript was

How can this educational partnership be described as a conceptual framework?

Findings

Cooperation, Coordination and Collaboration Within the Framework

Three words have been regularly associated with partnership development in scholarly research: cooperation, coordination, and collaboration (Barnett et al., 2010; Intriligator, 1992). Intriligator (1992) placed the three concepts on a continuum moving from cooperation, which is independent, separate interactions to collaboration – decidedly interdependent, connected relationships.

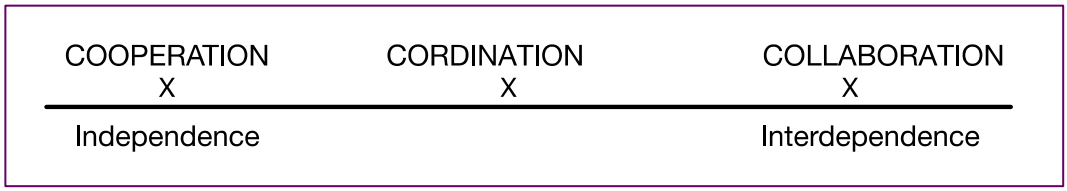

Figure 6. Continuum of Interagency Efforts by Intriligator, 1992, reprinted in Barnett et al., 2005, p. 20. Adapted.

Cooperation has been used to describe partnership where the organizations retained their autonomy as they worked together to achieve short-termed goals (Barnett et al., 2010; Intriligator, 1992). Often the short-termed goals were to gain new resources, services, and/or for teacher training. In the cooperation state of partnership, teachers were known to have asked local businesses and parents to do such things as: read to students on days such as *Read Across America Day*; allow the junior class to build the homecoming float in their barn; contract to purchase equipment or teacher training; provide a city league tournament at the school; donate money for technology, or sponsor student activities. Characteristically, cooperative ventures

have been simple in structure, short in time requirements, and lack participant commitment. Rarely, do cooperative relationships include many of the other elements which typify more complex partnerships (Barnett et al., 2010; Intriligator, 1992). Sporadic planning and infrequent communication exemplified the completion of the goals in a cooperative partnership. Organizational trust characterized this level of partnership, which meant that because the organizations were known and trusted, the participants were willing to trust one another because they trusted and respected the organizations for which the other worked. This type of partnership often possessed leadership approval, but lacked their involvement. Cooperation, the most prevalent partnership found in education - as every joint venture is labeled 'partnership' - rarely changes or grows. (Albrecht & Hinckley, 2012; Barnett et al., 2010).

Barnett et al. (2010) referenced a partnership more focused on shared goals and teamwork to achieve those goals as coordination. They described this type of partnership as longer in term and requiring more commitment and regular communication among the partners. The structure of interactions and achievements were described as moderately complex. Trust between the organizations moved from trust in each organization and their previous behavior to trust of the individuals. Employees believed in the vision of the partnership and became personally committed. Communication and participant commitment was increased each time the members came together to accomplish goals, thus both aided the growth of trust between the participants. Leaders emerged at all levels of the partnership. Examples of partnerships in this stage of development: industry partners who host internship programs that provide a learning environment for seniors year after year; members of groups such as parks and recreation who partner with a local career and technical building construction program to build an archery range,

to replace picnic tables in the park. Leaders usually participated and became committed to the outcome in this level of partnership because the goals were important to the whole organization.

The strongest type of co-organizational initiative with multi-layered participant commitment to common goals and a shared vision was labeled by Barnett et al. (2010) as collaboration. Collaborative partnerships provide mutually beneficial exchanges between all organizations. The shared vision, mission, and goals guide the movement throughout the partnership. Communication was open and regular in all areas to include planning, accomplishing goals, staying in touch, and reflecting on interactions. Commitment from all organizations was consistent. The goal was to succeed and every participant worked to that end. Trust was a palatable component at all levels of participation. New participants arrived into the partnership trusted because they belong to the organization and quickly moved to individual trust as others did before them. Leaders were active participants in all levels of the partnership (student leaders, teacher leaders, and industry leaders). The interactions and structures of collaboration in a collaborative partnership were described as complex. A partnership distinguishes itself as collaborative when elements such as time, resources, planning, shared values, common goals, human commitment, trust, communication, and leadership move the partners forward through the conceptual framework of partnership. In the collaboration state of development, partnership was exemplified as an industry that supported a career-academy with regular instructional visits to the school by mentors within the company, field trips, and some financial resources; or as a medical hospital who worked with high school interns to study a common problem, collect and interpret data and then report on the data in a medical journal.

Toward a Conceptual Framework for Educational Partnerships

The conceptual framework developed herein presents a description of the partnership examined. It contains the six elements that enabled the partnership to grow and become sustainable. This analysis, like Dhillon's (2013) research, demonstrated that educational partnerships can be conceptualized on a continuum from simple to complex collaborations that are characterized by six distinct elements found in all three types of partnership. The framework was created as a potential model for others who wish to engage in the creation and implementation of a school/industry partnership. It conceptualized a firm foundation, which includes an agreement to partner, shared goals, and purposeful planning. From this foundation, all other characteristics developed. The details of the findings, upon which this conceptual framework was based, were presented in Griggs (2015). They were presented in summary form here in order to explain the elements within the conceptual framework for partnership. There were six primary elements identified that fostered partnership success and sustainability. All six elements are present and integral at each level in the conceptual framework. Their effect is felt more and their potency increases as the partnership moves from simple to complex. The six elements included: (a) Purposeful planning and flexibility in implementation, (b) Shared values and common goals, (c) Open and regular communication, (d) Commitment, (e) Trust, and (f) Leadership.

Collaboration Model

Strong, thorough partner commitment at all levels;

Complete trust in all participants to work with shared values to realize the vision;

Regular, open, and respectful communication;

Coordination Model

Strong partner commitment at most levels;

Trust grows in individual participants as commitment is shown;

Shared values & goals prevail;

Open and regular communication;

Cooperation Model

Commitment, if seen, is in the most active participants;

Organizational trust brings partners together;
Vision & goals are identified;
Communication occurs when necessary;

Leadership at top encourages the partnership.

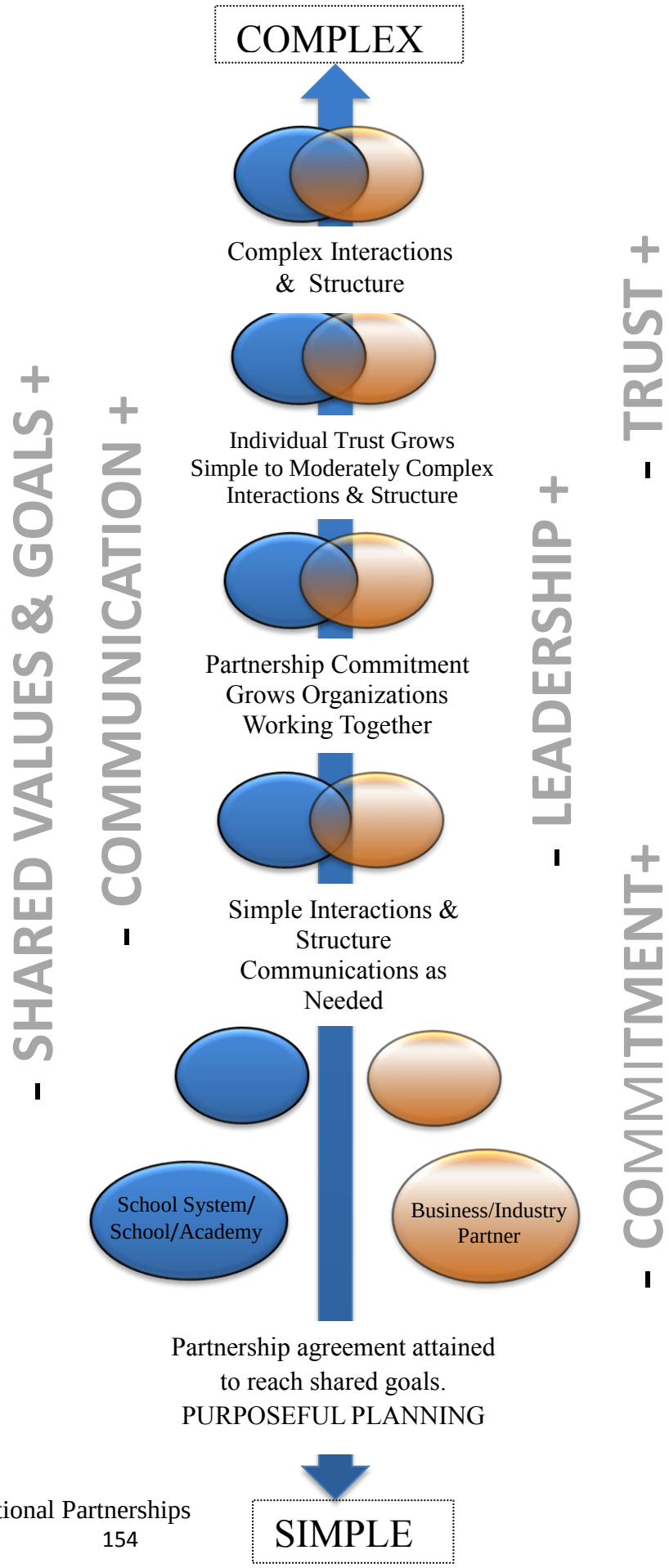

Figure 7. Conceptual Framework for Educational Partnerships

The implications of this analysis for school and industry leaders are that leaders of weaker, simpler forms of partnerships can rate themselves in the six elements identified to facilitate partnerships and work to strengthen the areas where they are weak. They could need development in only two or three of the elements in order to move up the continuum to a more complex partnership. As the partnership is strengthened, it will move up the continuum causing its impact in reaching common goals to become more effective, successful, and sustainable.

In Griggs (2015), the leadership team spent time purposefully planning and giving all the key leaders and participants time to share their vision for the partnership and commit to it. The participants expressed that until they could imagine how they fit into the partnership and where they could contribute to it, the partnership remained an unimplemented idea. The participants perceived that purposeful planning was essential to the facilitation and organization of the partnership. The industry partners and school administrators described planning as the first step in their collaboration. A member of the core team stated:

> I think one of the most important things we [the core team] did was to spend time planning the academy. We identified what we wanted to accomplish and what it would take in the form of time, [human power], and other resources. It took several meetings, but we walked away with a plan, something concrete to do. – Program Manager

The superintendent of schools reflected on the importance of planning in his interview. He believed that planning was an important part of the process of this partnership. Although the plan changed as the partnership progressed, the planning was the foundation of its success. Flexibility in the implementation of the plan proved to be another important element that facilitated this partnership. The program manager believed that flexibility in implementing the plan was essential. A teacher summed it up by saying

> Everything important enough to do should begin with a plan, but the administrator of that plan should always be willing and able to deviate from the plan when something better can be attained in the deviation. - Teacher

All participants spoke to the importance of a common vision with goals. Shared values and common goals were the elements that the planning occurred around. On several occasions, even the students mentioned that the Alabama Power partners said the same things that their teachers said and valued the same things such as honesty, integrity, good grades, and credentials. The partnership was centered around the students and doing what was best to facilitate their learning. All actions were based on this focus.

Open and regular communication was identified as the most important element in this partnership. It was coded 85 times in the conversations on the partnership. The most active groups – the teachers and the industry partners – referred to communication the most. For this study, communication referred to the interaction, planning, and exchange of ideas between the industry partners, the teachers, the students, and the administrators.

Trust was also identified as a facilitating element of this partnership. The business office manager talked in his interview on the trust that grew to a different level within the partnership:

> In the beginning, I think that trust from past experience came into play – a corporate trust – we have seen Ozark City Schools deliver on promises in the past, we knew that you have your act together [as a school system] and we trusted that you will do what you said. You trusted Alabama Power because we have been around a long time and we deliver on our promises. Now that trust has moved to individual trust – it's personal. Through working with one another and being able to depend on each other, a deeper trust has been forged between the key partners. Trust is a stronger, more tangible thing, now.

Observation notes described trust as a tangible feeling between all groups of participants. Each interaction between the industry partners and the school strengthened their trust, which strengthened the partnership. Dhillon (2005) referred to trust as the glue in a partnership.

Commitment of the participants was a remarkable part of the strength of this collaboration. Commitment ranked as the second most important element that facilitated the partnership. Industry employees visited the classroom on a regular basis sharing their time and experiences with the students and teachers. Their mission was to show students how what they were learning in school was relevant to the world of work. Without planning to do so, the employees always talked about and modeled essential skills that are needed to be a successful professional.

Leadership at all levels was the least referred to element that facilitated the success of this partnership. The partnership began due to the vision of the top leadership. As the partnership grew, leaders emerged at all levels. On every visit to the academy, leaders were seen and heard. Participant leadership kept the partnership moving forward.

The Differences in the New Framework and the Topography Proposed by Barnett et al.

This study proposed a new framework divided into three distinct types: cooperation, coordination, and collaboration, along a continuum from simple to complex interactions. Each type can be viewed as a model of partnership. In the new framework, cooperation, coordination, and collaboration are used to describe the planning, values and goals, interaction, communication, trust, commitment, and leadership of the partners within the partnership. A relationship between two or more organizations can begin at cooperative and move up the continuum to collaborative as it grows, or it can begin and remain at any one of the levels. Any partnership involving education can be described by this framework and its six essential

elements. Other elements can also describe a partnership, but the six identified in this research are pervasive throughout the continuum from simple to complex.

The typology that Barnett et al. (2010) proposed, seen in *Figure* 5, moved partners from a simple structure to a complex spin-off model as a newly created organization. The researcher's experience indicated that nothing involving students ever separates from the school. Rather it can be a new part of the school, inclusive in the school, but never exclusive. The Vendor Model proposed in the typology certainly exists in educational partnerships, but there are many other types of cooperative partnerships that do not involve vendors or service purchased that can be inclusive to the cooperation level of partnerships.

The new conceptual framework proposes a continuum for partnerships which can be measured by growth in the six facilitating factors (a) Purposeful planning and flexibility in implementation, (b) Shared values and common goals, (c) Open and regular communication, (d) Commitment, (e) Trust, and (f) Leadership. Partners can focus on strengthening any of the six factors in order to move up the continuum toward true collaboration.

Discussion

The collaborative process essential to partnerships nurtures a sincere sense of shared responsibility for the education of the students involved. However, the potential of partnership may not be attained without a logical process to follow that guides growth as does the proposed conceptual framework from this study. It seems that everything done in education begins as a 'partnership;' therefore, defining a true partnership is hard to do. As mentioned earlier, partnerships are not all the same. Often, they are ambiguous and complex – with different external pressures, expectations, motives, and goals for all the partners. Without strength and growth in the (a) leadership, (b) purposeful planning, (c) communication, (d) commitment, (e)

trust, and (f) shared values and common goals, the partnership becomes unstable, conflicted and often dissolves.

The conceptual framework was proposed to guide the progressive movement to goal attainment. First, the partnership formation is agreed upon by all organizations involved. Shared goals are identified and action steps are planned. Purposeful planning is important at this stage. During the cooperation stage, the organizations are working individually to achieve the identified goals. Conversations occur as needed to get things done. Individuals involved in the action are committed to seeing it through, but commitment to the partnership does not pervade all the players at this stage. The partnership is little more than an agreement. Trust is only in the organizations, because they have a good 'track record.' Leadership initiates and often encourages the partnership at this stage. The goals are simple in design and implementation.

Coordination is the second stage that partnerships usually take, although some partnerships begin in this stage. At this stage, communication is regular and becomes a valued part of the partnership because of its ability to begin and perpetuate motion in goal attainment. Purposeful planning continues, but the participants are also encouraged to be flexible in their actions. Plans change when the actions are student centered. Participants become committed to the vision and goals. They do whatever it takes to achieve the shared goals. Other participants value commitment given by others as they are committed to achieving the goals, too. This commitment builds trust in one another. Therefore, trust moves from organizational trust – where you are trusted because you belong to a trustworthy company; to individual trust, which is much more powerful. Leaders begin to emerge at all levels – students, teachers, partners, and administration. Most educational partnerships that are sustained are at the coordination level.

The third and final type of partnership on this framework is collaborative. This stage is characterized by open, regular, and respectful communication. The partners realize that communication connects the participants and ensures all programs run smoothly. Shared goals are now mutual goals that all involved value and strive to attain. The commitment level of all involved is strong and comprehensive. The participants see the value in the partnership and believe that they have a place in it and CAN make a difference. Purposeful planning is still important to carry the partnership to the next level - plan for the next steps, the next innovations, and the new partners. Leaders at all levels become innovative. The goals and actions are complex and interconnect the organizations – the participants – to one another.

The researcher offers a conceptualization of partnership that places the characteristics on a continuum from simple to complex, from weaker to stronger, based on a review of literature and conversations with multi-level participants in a school/industry partnership. A simpler way to look at partnerships is to place the elements identified in Manuscript 1 on the continuum alone without other distractors. As seen in *Figure* 8, all six elements are present at all three stages on the continuum, but as they present into the collaboration partnership type shown on the continuum, the strength and interconnectedness are much stronger. The elements on the continuum support stronger levels of partnership, which aid the partnership in achieving the goals and plans of the partnership. This continuum of the characteristics of partnership offers a tool for understanding the process of partnership development. The continuum of weak to strong, simple to complex partnerships provide leaders with a tool to be used as a checklist to evaluate and develop their partnerships.

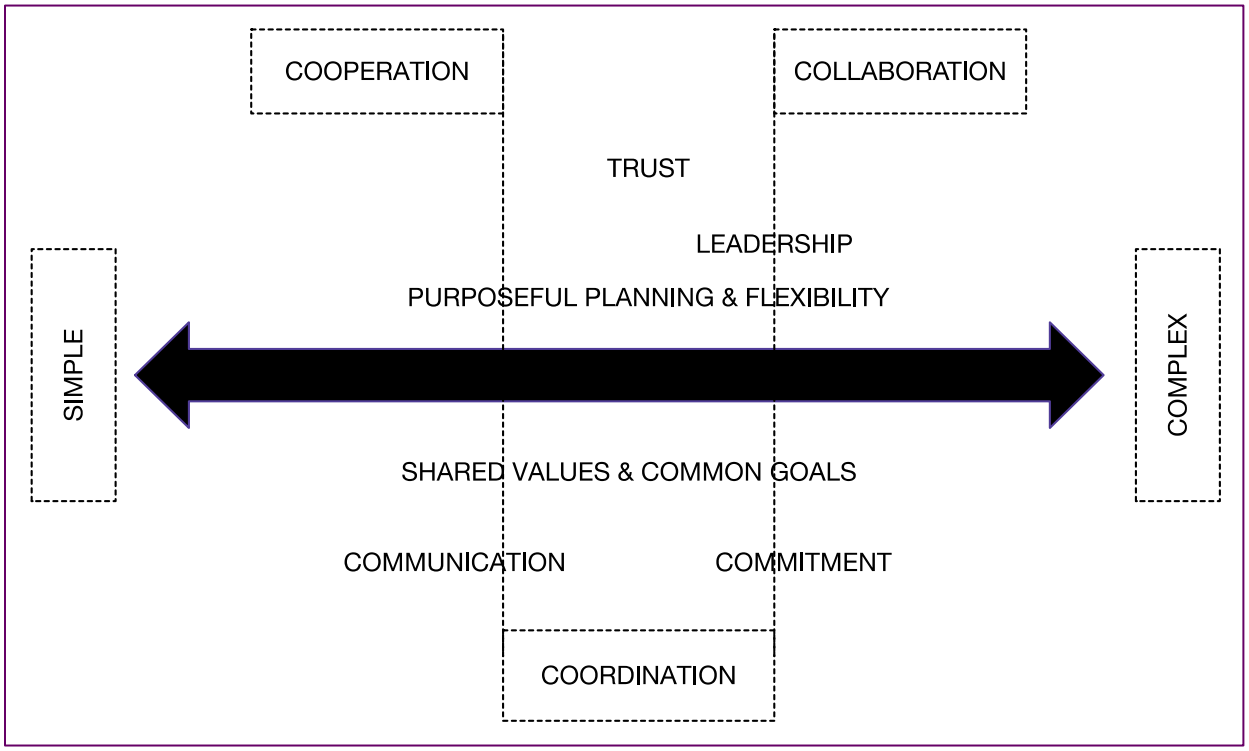

Figure 8. The six factors that facilitate educational partnerships.

Future Research

In order for the transferability and dependability of the new conceptual framework to be determined, future case studies on partnerships that use the conceptual framework presented in this research to guide the partnerships' growth and evaluate its strengths are recommended. A study to extend and enhance the development of the conceptual framework would strengthen the present research. A longitudinal study on this career academy is also advised to determine if the six facilitating factors remain the same or differ over the years.

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APPENDIX 1

Interview Questions

Teachers:

1. How do you understand the mission of the CHS Career Academies and the role you play in helping to attain these goals?
2. Does the AL Power Business Academy have its own vision and mission statement?
3. Why did you choose to participate in the Alabama Power Academy?
4. Tell about activities in your classes within the Alabama Power Business Academy and how they are similar to/different from classes not in the academy.
5. What knowledge is regarded as 'relevant' for students entering into this industry?
6. Who has made this decision and how was it done?
7. What is different this year in the AL Power Business Academy verses last year in the business program?
8. How have you been impacted by participation in the Alabama Power Academy?
9. What has been your most memorable moment as part of the Alabama Power Business Academy?
10. What factors served as facilitators of success in the partnership for the Alabama Power Academy?
11. How would you like to see the academy grow and change (evolve) next year?
12. Is there anything you would like to tell me that I have not asked?

APPENDIX 2

Interview Questions

Students:

1. Why did you choose to participate in the Alabama Power Academy?
2. What were your expectations beginning this year? Have your expectations changed?
3. What has been your favorite encounter within the academy this year? Did Alabama Power employees participate in any way? How?
4. How have you been impacted by participation in the Alabama Power Academy?
5. What factors do you see as the Alabama Power Business Academy successful?
6. How would you like the academy to change or evolve next year? In five years?
7. Do you think that you will continue in this pathway next year? Why or why not?
8. Is there anything you would like to tell me that I have not asked?

APPENDIX 3

Interview Questions

Alabama Power Company Employees:

1. How do you understand the mission of the CHS Career Academies and the role you play in helping to attain these goals?
2. **Why did you choose to participate in the Alabama Power Business Academy?**
3. Tell about your most memorable moment(s) related to the Alabama Power Business Academy.
4. How have you been impacted by participation in the Alabama Power Academy?
5. What factors served as facilitators of success in the partnership for the Alabama Power Academy?
6. What knowledge is regarded as 'relevant' for students entering into this industry? How are we ensuring that students are learning this relevant material or skills?
7. How is this partnership different from the other educational partnerships in which you have participated?
8. What are 3 things that you would recommend to other organizations wanting to form a school/industry partnership that they should do or include in the partnership?
9. What are 2 things that you would recommend that they do differently?
10. How would you like to see the academy grow and change (evolve) next year? In five years?
11. Is there anything you would like to tell me that I have not asked?

APPENDIX 4

Interview Questions

Administration (School level and Central Office):

1. How do you understand the mission of the CHS Career Academies and the role you play in helping to attain these goals?
2. Why did you choose to pilot a partnership with Alabama Power through the Alabama Power Business Academy?
3. Tell about activities that you participated in to begin the Alabama Power Business Academy and how they are similar to/different from other academy start-ups?
4. How would you describe the partnership between the high school and Alabama Power Company?
5. What is different this year in the AL Power Business Academy verses last year in the business program?
6. How have you been impacted by participation in the Alabama Power Academy? (Or) How have you seen the school/academy/students impacted by their participation?
7. What factors served as facilitators of success in the partnership for the Alabama Power Academy?
8. What are 3 things that you would recommend to other organizations wanting to form a school/industry partnership that they should do or include in the partnership?
9. What are 2 things that you would recommend that they do differently?
10. How would you like to see the academy grow and change (evolve) next year? In five years?
11. Is there anything you would like to tell me that I have not asked?

APPENDIX 5: Carroll High School Career Center Workplace Expectations Scoring Guide

Student Name:		**Class:**		**Date Range:**	
Employers want:	**Behavior**	**Competent (10-8)**	**Approaching Competency (7)**	**Needs Improvement (6-5)**	**Substandard (4-3)**
Positive, enthusiastic employees **Self –Score Teacher Score** _____ _____	**Positive Attitude:** *~Eager to Learn* *~Eager to Work* *~Eager to Think* *~Practices Critical Thinking* *~Willingness to Interact* *~Communicates well* *~Collaborates in Teams*	○ Always displays a positive attitude to peers, instructors, and visitors ○ Shows an eagerness to learn, i.e. projects, assignments, and labs ○ Constantly contributes in a positive way in a group of peers, with instructors, and to visitors ○ Communicates with clarity and precision ○ Collaborates in team setting, adept at taking the lead as well as following	○ Has been reminded 1 time to have a positive attitude with peers, instructors, and visitors ○ With prompting, student will engage in most projects, assignments, and labs ○ Frequently contributes in a positive way in a group of peers, with instructor, and visitors ○ Communicates well ○ Collaborates well	○ Has been reminded 2 times to have a positive attitude with peers, instructors, and visitors ○ With frequent prompting (more than 3 x), student will engage in some projects, assignments, labs ○ Rarely contributes in a positive way in a group of peers, with instructor, and visitors ○ Communicates ○ Rarely able to work in a team	○ Has been reminded more than 2 times to have a positive attitude with peers, instructors, and visitors ○ With constant prompting, student will attempt projects, assignments, labs ○ Never contributes in a positive way ○ Needs to work on communication skills
Punctual workers **Self –Score Teacher Score** _____ _____	**Reliability:** *~Attendance* *~Punctuality* *~Preparedness*	○ Present each day ○ On time every day ○ Always prepared	○ Missed 1 class ○ Tardy 1 time ○ Not prepared once	○ Missed 2 classes ○ Tardy 2 times ○ Not prepared twice	○ Missed 3 or more classes ○ Tardy 3 or more times ○ Not prepared 3 or more times
Properly/Professionally dressed for the job **Self –Score Teacher Score** _____ _____	**Professionalism:** *~Technology Use* *~Grammar/Semantics* *~Focused Effort* *~Solution Oriented* *~Dressed for Success*	○ Uses technology in an appropriate manner, as per teacher instructions ○ Speaks in formal register, always ○ Focused on finding a solution – not clarifying a problem ○ Puts forth effort above and beyond - for every assignment and task ○ Dressed appropriately	○ Has been redirected 1 time for misuse of technology ○ Speaks in formal register, consistently ○ Forgets to stay focused on finding a solution – slightly more focused on the problem ○ Puts forth best effort for almost every assignment and task ○ Dressed appropriately frequently	○ Has been redirected 2 times for misuse of technology ○ Speaks formally, often ○ Forgets to stay focused on finding a solution – slightly more focused on the problem ○ Rarely puts forth best effort for any assignment and task ○ Dressed appropriately rarely	○ Has been redirected more than 2 times for misuse of technology ○ Speaks formally, some ○ Lacks proper focus ○ Never puts forth best effort for any assignment and task ○ Does not dress appropriately
Go out of way to add value/do more than required **Self –Score Teacher Score** _____ _____	**Initiative/ Responsibility:** *~For Work Environment* *~Task Oriented* *~Managing of Time* *~Flexible/Adaptable* *~Shows Initiative* *~Shows Creativity*	○ Keeps work area neat, clean, and orderly ○ Stays on task without prompting from instructor ○ Encourages others or prompts others to stay on task ○ Manages time consistently, adapts to change ○ Displays creativity in thinking and work	○ Has been prompted 1 time to keep work area neat, clean, and orderly ○ Has been reminded 1 time to stay on task ○ Manages time frequently, affected by changes in schedule or task ○ Sometimes shows creativity	○ Has been prompted 2 times to keep work area neat, clean, and orderly ○ Has been reminded 2 times to stay on task ○ Manages time rarely, easily agitated ○ Rarely shows creativity	○ Has been prompted more than 2 times to keep work area neat, clean, and orderly ○ Has been reminded more than 2 times to stay on task ○ Doesn't manage time at all ○ Never shows creativity
Models expected essential skills **Self –Score Teacher Score** _____ _____	**Respect and Integrity:** *~Honesty* *~Communication* *~Recognizes authority* *~Conforms to policies* *~Safety Aware*	○ Honest and trustworthy ○ Communicates well and with clarity ○ Always follows procedures and protocols, including those regarding safety	○ 1 Issue with honesty &/or trust ○ Communicates clearly ○ Has been reprimanded 1 time for non-compliance of procedures, protocols, and/or safety violation	○ 2 Issues with honesty/trust ○ Communication is unclear and rare ○ Has been reprimanded 2 times for non-compliance of procedures, protocols and/or safety	○ Caught more than 2 times in a lie or stealing ○ Has been reprimanded more than 2 times for non-compliance of classroom procedures, protocols and/or safety
Provides cheerful, friendly	**Attitude:**	○ Always uses respectful, courteous, and helpful language and actions in dealing	○ Frequently uses respectful, courteous, and helpful language	○ Infrequently uses respectful, courteous, and helpful language	○ Rarely uses respectful, courteous, and helpful

service **Self –Score** **Teacher Score** _____ _____	*~Toward Instructor* *~Toward Peers* *~Toward Visitor/Client* *~Appreciative* *~Customer-Service Oriented*	with peers, instructors, and visitors	and actions in dealing with peers, instructors, and visitors	and actions in dealing with peers, instructors, and visitors	language in dealing with peers, instructors, and visitors