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Pepperdine University
Graduate School of Education and Psychology

A CASE STUDY EXAMINING THE CAREER ACADEMY MODEL AT A LARGE
URBAN PUBLIC HIGH SCHOOL

A dissertation submitted in partial satisfaction
of the requirements for the degree of
Doctor of Education in Educational Leadership and Policies

by

Howard Ho

June, 2013

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This dissertation, written by

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DOCTOR OF EDUCATION

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ABSTRACT

This study focused on how career academies were implemented at a large, urban, public high school. Research shows that the career academy model should consist of 3 core components: (a) a small learning community (SLC), (b) a theme-based curriculum, and (c) business partnerships (Stern, Dayton, & Raby, 2010). The purpose of this qualitative case-study was to examine how the academy model was implemented and its impact on the 2 existing career academies at a comprehensive high school.

The researcher collected data by utilizing a variety of methods such as surveys, interviews, observations, and analysis of artifacts. All career academy teachers at the site participated in the survey and focal academy teachers were purposively selected based on their academy teaching experience and a willingness to participate in interviews and observations. Finally, academy artifacts were analyzed in the process of data triangulation. Findings indicate that small learning communities have a positive impact on building relationships; academy teachers must be well supported by administration; and that business partnerships are critical to career academies.

Findings from this study support several conclusions about the implementation of 2 career academy models: a) Both academies successfully implemented Small Learning Communities that led to more camaraderie within the academies, b) Teachers were not provided with the necessary training to integrate theme-based curriculum, and c) Business partnerships were nonexistent due to the lack of internship and job-shadowing opportunities provided for academy students.

Study outcomes recommend that only academy students should be enrolled in academy classes and academy teachers must be carefully. Academy teachers should have a common planning period and must be provided with initial training and ongoing professional development. Academies should form a steering committee consisting of representatives from businesses and post-secondary education. Finally, more collaboration must exist between academies and business partners.

Implemented properly, the career academy could be a highly effective model to provide students with a 21st century learning experience. Although 2 of the 3 components of the academy model require immediate attention, findings indicate that proper teacher professional development and access to business partnerships may lead to more conducive learning environments and collaborative spaces.

Chapter One: Introduction

Background

The United States was the first country to develop an educational system that offered a free comprehensive education for all (Dufour, Dufour, & Eaker, 2008). In 1890, a few years after educators made the first formal pledge proclaiming the significance of high school education, less than 1% of the high school–eligible population was enrolled in high school. By 1915, the high school population escalated by over 500% and, by 1940, approximately 70% of teenagers between the ages of 12 and 19 were attending American high schools. In 2000, 96.6% of US students between the ages of 14 and 17 attend high school (Maxwell & Rubin, 2000). However, scholars often criticize the idea of free compulsory education because too few students achieve academic excellence or even graduate with the skills they need to participate successfully in the workforce (Stern, Raby, & Dayton, 1992).

Much debate exists about the high school curriculum and how it fits in the early 21st-century's economy and social structure. According to some policymakers and educators, the public schools that comprise a large part of the American school system are among the best in the world (Vinson & Ross, 2004). Others feel that America's educational system is inferior compared to other countries and that we should abandon the public school system (Good & Braden, 2000). One solution proposes implementing programs classified as *vocational* or *career and technical* (Oakes & Saunders, 2008). However, to fully appreciate the significance of the current debate, understanding how traditional education evolved into 21st-century career academies is crucial.

The vocational education concept originated from the idea of collaboration between vocational and non-vocational educators (Gordon, 2008). Historically, the collaborative

construct was meant to create a learning environment that would help students develop technical skills to join the workforce (Wang & King, 2008). With the support of state and federal legislation to fund vocation education (e.g., Smith-Hughes Act, [1917], Carl Perkins Act [1984, 1990, and 1998], and School-to-Work Act [1994]), career academies within secondary schools were realized.

The search for innovative reform to help struggling schools led to the creation of career academies in the 1960s. Underperforming high schools in the United States needed new ideas to help students achieve at higher levels while preparing them for the workforce. The “one size fits all” approach was failing the school system. Influenced by variations in circumstance and context, schools produced wide-ranging levels of student achievement (Manning, Kinzie, & Schuh, 2006). For example, socioeconomic status and parental involvement impacted student achievement, but also varied significantly from school to school (Jeynes, 2010). And, whereas America’s school system was missing a comprehensive process to help high school students transition from school to work in the 1960s, Germany and other countries had secondary school systems that consisted of well-developed work-based learning programs (Stern et al., 1992).

Career academies were the original and more fully articulated representation of the school-to-work model in schools (Maxwell & Rubin, 2000). Career academies first emerged in Philadelphia in the 1960s (EdSource, 2009; Maxwell & Rubin, 2000; Stern et al., 1992). Historically, the goal of the career academy model was to provide students a work-based learning experience that would help them link their academic training to a profession. Additionally, career academies were developed to prevent at-risk students from dropping out of school (Maxwell & Rubin, 2000; Stern et al., 1992).

Separate entities within a larger comprehensive high school, career academies are based on three core components: (a) a small learning community (SLC), (b) a theme-based curriculum, and (c) business partnerships (Stern, Dayton, & Raby, 2010). Small learning communities can offer a nurturing environment that build camaraderie, allow easy access to adult role models, and provide work-based learning opportunities for students (Sammon, 2008). A theme-based curriculum combines academics with skills, thus training students to apply basic information to solving unforeseen problems in the working world (Oakes & Saunders, 2008). Business partnerships provide work-based learning opportunities such as internships and job shadowing (Maxwell & Rubin, 2000). In short, the career academy model helps students build connections between academics and the workforce. As the search for educational reform continued, educators made slight modifications to the career academy model, which led to the creation of *multiple pathways*—a concept that gained national recognition in 2003 (Oakes & Saunders, 2008). Multiple pathways consist of four core components: (a) a college-preparatory academic core, (b) a professional or technical core, (c) field-based learning opportunities, and (d) additional support services to meet the needs of particular students (Oakes & Saunders, 2008). The goal of multiple pathways is to prepare students for both college *and* career opportunities.

Multiple pathways are implemented through a variety of school structures. Whereas some schools use career academies to implement the multiple pathways concept, other schools apply the concept to whole school reform (EdSource, 2009; Oakes & Saunders, 2008). For example, Kearny High School, located in San Diego, California, closed down its entire school and reopened in 2004–2005 as four small high schools, each with a different career pathway (EdSource, 2009). Regardless of how multiple pathways are implemented,

outcomes merge traditional academics with technical curriculum—an alliance reinforced by work-based learning opportunities (ConnectEd, 2010).

While educators across the nation embraced the term multiple pathways, they debated its meaning—which varied depending on where it was used. In California, multiple pathways was associated with reform but on the East Coast, it carried the stigma of intervention. Therefore, in 2010, the state of California adopted a new name for this concept: *linked learning* (EdSource, 2009).

Despite the emergence of multiple pathways and linked learning, the career academy model appears to be more common in secondary schools. In 2009, the state of California has 464 state-funded career academies and another 250 that operate independently, without financial assistance (EdSource, 2009). This study seeks to determine how the career academy model has impacted a large urban comprehensive high school.

Statement of the Problem

High school students are not achieving academically for many different reasons (Chall, 2000). In 2005, a study showed that California schools perform well below the national average compared to schools with similar demographics (Kemmerer & Sansom, 2005). Furthermore, the graduation rate for the non-native population declined from 86% to 77% between 1980 and 1990 (Rumberger, 2011). Additional research indicates that students are not interested in what they are learning because of the lack of connection between academics and real-world application (Stern et al., 1992). Further, low expectations from teachers and limited access to high-quality curriculum interfere with learning (Russell & Kavanaugh, 2011).

In an attempt to help consistently underperforming students, many schools are searching for new ideas to increase student achievement. To this end, many schools across the nation have adopted a reform model identified as *smaller learning communities* (Dufour et al., 2008; Rattray, 2008). Career academies are one of many examples of small learning communities that operate as a school within a school and offer career-related academic curriculum to a cohort of high school students (Conchas, 2006). Career academies can help bridge the gap between academics and career, allowing students to participate in hands-on training that captivates and maintains a high level of interest (Maxwell & Rubin, 2000; Stern et al., 1992). The goal of career academies is to increase student achievement by providing students coursework aligned to a career of interest.

Purpose of the Study

The purpose of this study was to examine the implementation and impact of the career academy model at *Olympic High School* during the 2011-2012 school year.¹ More specifically, by analyzing multiple forms of data, this qualitative case study explored how two academies—the Environmental-Based Academy and the Media-Based Academy—implemented the career academy model within a large, urban comprehensive high school..

Career academy students and teachers are meant to benefit from additional resources that are not available to non-academy students and teachers. These resources, such as job shadowing, internships, integrated interdisciplinary curriculum, fieldtrips, and smaller class size help career academy students maximize their learning opportunities. At Olympic High School, the site of this study, it was unclear how, and if, these resources were benefitting

¹ All proper names of sites, locations, and individuals will be pseudonyms used to protect the anonymity of the participants.

students. Consequently, this research examined the implementation and impact of the career academy model on the academy teachers and classrooms.

Research Questions

This study examined the implementation of career academies and their impact within an urban high school. The following questions served as a blueprint for gaining further understanding of how the career academy model has impacted a large urban comprehensive high school:

- How does a small learning community influence classroom culture in career academy classes?
- How are academy teachers implementing theme-based curriculum in career academy classes?
- How does access to business partnership and resources impact career academy classes?

Importance of the Study

This study was both timely and important. In October 2011, Governor Brown of California signed and approved Assembly Bill 790 to pilot linked learning (Edsource, 2011). This initiative intended to implement linked learning, a schooling model that combines college-preparatory coursework with career-technical curriculum, along with work-based learning opportunities for high school students and additional support services.

In assessing these aims, this study adds to the growing body of literature on career academies as alternatives to traditional learning programs. In an effort to determine innovative strategies for increasing student performance, many educators are tailoring pathways to meet the specific needs of students. Career academies aim to serve this purpose.

How effectively the career academy model is implemented at various school sites is unknown. As stated, the career academy model consists of three core components, a small learning community, a theme-based curriculum, and business partnerships (Maxwell & Rubin, 2000; Stern et al., 1992). All three components must be implemented in order to maximize the effectiveness of the academy (Stern et al, 2010). For that reason, this study analyzed how two career academies at one urban comprehensive high school implemented the three core components.

This study provided the school with immediate knowledge and recommendations on how to improve policy, practice, and the overall framework of both academies. This practice is known as translational research, whereby a researcher takes specific academic findings and directly applies them to on-the ground practices (Butin, 2010). This research provided the school pertinent data on how academy teachers perceived the career academy model. At the time this research was conducted, Olympic High School was considered one of the lowest-performing schools in the area. Helping the two academies improve will benefit the school as a whole.

Theoretical Framework

The researcher used *Human Capital Theory* to frame this research on career academies. First recognized in the 1960s by Jacob Mincer, Theodore Schultz, and Gary Becker, Human Capital Theory asserts that individuals can add to their personal growth through different opportunities, such as training programs, receiving an education, and/or working in jobs that increases their skill-set (Haveman, Bershadker, & Schwabish, 2003; Prinz, 2004). Furthermore, the degree of on-the-job training (OJT) influences one's future

capacity through the skills, knowledge, and experience acquired by performing the actual job (Cunningham, Dawes, & Bennett, 2004).

Human capital is manifested when individuals procure new skills and capabilities that liberate them to act in new ways (Coleman, 1988). The three components of the career academy model—small learning communities, theme-based curriculum, and business partnerships— can all increase a student’s human capital. Moreover, this increased human capital can provide a smoother transition from school to the workforce. Thus, career academies are designed to promote human capital by equipping individuals with skills for exploring their options (Gaynor, 1998; Maxwell & Rubin, 2000).

Operational Definitions and Key Terms

The following section defines key terms used throughout this research. Some of the key terms have been simplified for the sake of clarity; others are directly from sources, as noted. Although some of the key terms can be interpreted in more than one way; for the purpose of this study, they should be associated as contextual support for this study.

Academic Development - Academic development refers to the development of knowledge and expertise in a particular or multiple subject area.

Academy Students - Academy students refer to students who are enrolled in a career academy.

Academy Teachers - Academy teachers are teachers who are teaching one or more academy classes.

Artifacts - Artifacts refer to the career academy agendas used during academy collaboration between 2009 and 2012.

At-Risk Student – An at-risk student is a student who is unlikely to graduate on schedule with the skills and self-esteem necessary to exercise meaningful options in the area of work or leisure (Sagor & Cox, 2004).

California Standards Tests (CST) - The California Standards Tests (CST) are for California public schools and are aligned to the state content standards. All students in grades 2 through 11 take the CSTs for the subjects listed for their grade.

Career Academies - A career academy refers to a school-within-a-school and is based on a model that consists of three core components: small learning community, theme-based curriculum, and business partnership (Stern et al., 1992).

Career and Technical Education - Career and technical education is a program of study whereby collaboration between vocational and non-vocational educators prepares students for both work and further education (Gordon, 2008).

Dropout - The term “dropout” refers to someone who leaves school without earning a high school diploma. This term is primarily used in the United States and Canada (Lamb & Markussen, 2010).

Human Capital - Human Capital Theory was developed in the 1960s by Gary Becker, Jacob Mincer, and Theodore Schultz and pertains to acquiring a set of skills that helps one become more valuable to an organization (Prinz, 2004).

Linked Learning - A newly adopted term by the state of California to replace *multiple pathways*. Linked learning is a comprehensive high school program that associates classroom knowledge with job skills applications outside of school. Linked learning merges traditional academics with technical curriculum, reinforced by work-based learning opportunities (ConnectEd, 2010; EdSource, 2009).

Multiple Pathways - Multiple pathways is a concept that combines academic and career-technical education to help bridge the gap between school and work experience (Oakes & Saunders, 2008).

School-Based Learning - School-based learning is the practical understanding of a subject and usually takes place in the classroom. School-based learning is generally accomplished through collaboration with business partners who provide technical assistance in establishing a solid academic program (Jong, Wierstra, & Hermanussen, 2006; New Hampshire State Dept. of Education, 1999).

Small Learning Community - A small learning community fosters individualized learning within a larger institution where students and teachers are scheduled together (Ruebling, Clarke, Kayona, & Stow, 2007).

Student Academic Achievement - Student academic achievement is a student's ability to articulate and store academic knowledge and the number of experiences that will directly add to the knowledge of content encountered in school (Marzano, 2004).

Vocational Education - A program of study that prepares students for occupations that require training other than a baccalaureate or advanced degree (Gordon, 2008).

Work-Based Learning - Work-based learning is a result of structured activities that take place at the job site and prepare students with the experience, knowledge, and ethics to flourish at work and in society (Cunningham et al., 2004).

Delimitations

This study was delimited to two career academies within the same high school in one county in Southern California. These two academies were not purposefully selected for this research, as they were the only two existing academies at the school site. All academy

teachers teaching at least one academy class were given the opportunity to participate in this study. Interview participants were delimited to academy coordinators and academy teachers with three or more years of academy teaching experience.

Limitations

One limitation of this study involves teacher attrition. Highly motivated and experienced academy teachers are one of key ingredients behind a strong career academy (Dufour et al., 2008). However, the continuous change in academy teachers, academy coordinators, and administrators can negatively impact student learning and the overall performance of the academy. Such transitions require working relationships among academy personnel to be re-established. Additionally, the state's budget crisis has led to a continual reduction in force (RIFs), which brings about a high rate of teacher attrition and inconsistency of teachers within each academy. Consequently, high turnover rates impact both the academy as well as the school.

Assumptions

This case study has several assumptions:

- Each career academy has a theme.
- Each career academy is implementing all three components of the career academy model.
- All academy students are from the local community.
- All academy students have the same opportunities and resources in the neighborhood, outside of school.

This research is written in five chapters. The first chapter provides an overview of the entire study, as it covers the background, statement of the problem, research questions,

theoretical frameworks, importance of the study, delimitations, limitations and assumptions as well as the key terms. The second chapter is a literature review that gathers existing literature surrounding the historical, contextual and empirical studies related to the career academy model. The third chapter presents the study design, methodology, including the setting, subjects and instrumentation to be used. The fourth chapter reveals the results of the study. The fifth, and final chapter, highlights the findings, conclusion and recommendations for further research.

Chapter Two: Literature Review

Introduction

This chapter will present a review of the literature related to career academies. This chapter is divided into four parts: (a) the historical context of career academies; (b) important characteristics of career academies; (c) the emergence of multiple pathways, which is now known as linked learning, as a concept to provide students with opportunities for higher education and the workforce; and (d) the theoretical consideration, grounded in Human Capital Theory, to support the research.

Career academies at the secondary level have evolved from a series of reforms and political acts spanning the past century. These reform efforts aimed to reduce dropout rates, increase student achievement, and provide students with skill-sets that prepare them for either postsecondary education or the global work force (Stern et al., 1992). The career academy concept stems from of a school-within-a-school model within the larger context of small learning communities. Over the years, the career academy program has expanded from providing students with entry-level job skill-sets to integrating technical content with academics (Stern et al., 1992). An array of career academy literature has indicated the positive effects these efforts have had on helping student transition from high school to either postsecondary education or entry-level jobs.

Vocational Education and the Federal Government

Over the last century, career technical education has expanded to benefit a variety of populations due to the growing manufacturing industries that are demanding more skilled workers (Martinez, 2007; Stephens, 1995). Over the years, the federal government has passed substantial legislation (e.g., Smith-Hughes Act, School-to-Work Act) to endorse and

contribute to the growing field of career technical education (see Table 1). In the 1930s, Congress wanted to develop more programs that aligned with the demands of the job market, and to lower the unemployment rate by matching workers to available blue-collar jobs (Werum, 2002). Federal funding to support the development of career technical education predated most of general education funding by about 40 years (Ainsworth & Roscigno, 2005). From the emergence of the Smith-Hughes Act of 1917, which provided funding at the high school level, to the Carl D. Perkins Acts (1984, 1990, 1998), career technical education has become more comprehensive (Martinez, 2007).

The Smith-Hughes Act (1917). In the early 1900s, Americans started to express their concerns that graduates from our public educational system were not equipped with the skills and knowledge necessary to be qualified entry-level workers (Stephens, 1995). In 1914, the Commission on National Aid to Vocational Education orchestrated a comprehensive study targeting our nation's need for vocational education, which led to the signing of the Smith-Hughes Act of 1917 (Stephens, 1995). This initiative provided the first federal dollars for vocational education (Gordon, 2008). Prior to this legislation, less than \$3 million were allocated to fund vocational education for 200,000 students. By 1960, funding for vocational education exceeded \$176 million, while the vocational student population grew to 3.4 million (Gordon, 2008). Thus, the Smith-Hughes Act set historical precedence in public education. In 1983, the National Commission on Excellence in Education reported that our educational system was failing to provide students with technical knowledge and skills. This report is commonly known as *A Nation at Risk* (Maxwell & Rubin, 2000). Around the same era, the impact of war activities highlighted that Americans were vocationally unprepared (Gordon, 2008).

Critics later argued that the Smith-Hughes Act advocated segregation because vocational education prepares students for jobs that do not require a bachelor's degree (Stern et al., 1992). Along these lines, researchers have studied areas in theoretical perspectives pertaining to school-work linkages that supports the possibility of dominant stratification arrangements may be reproduced (Ainsworth & Roscigno, 2005). In essence, vocational training provides a skill-set that is valuable in the job market and encourages self-directed learning both within and beyond the workplace (Ainsworth & Roscigno, 2005; Bruijn & Leeman, 2010.)

Vocational Act of 1963, 1968, and 1976. The passing of the Vocational Act of 1963 was groundbreaking (Gordon, 2008). This legislation followed the Smith-Hughes Act of 1917 and set historical precedence in vocational education. This policy permitted equal access and opportunity to high-quality first-class vocational education despite a student's background or financial situation (Horn & Schaffner, 2003). This legislation was signed into law by President Lyndon B. Johnson with intentions of revamping the existing vocational education program along with providing students with paid employment to meet their financial need, thus allowing them to complete the program (Gordon, 2008). According to McClure, Chrisman, and Mock (1985), "This initiative also allowed for the establishment of experimental, residential, vocational education school offering programs of four year duration" (p. 114). Overall, it addressed disparity issues in vocational education related to academic, socioeconomic, and disabilities (Gordon, 2008).

The Vocational Act of 1968 replaced the Vocational Act of 1963. In October of 1968, the Vocational Act of 1963 was amended due to a study conducted by the National Advisory Council on Vocational Education (NACVE), which replaced all the 1963

legislation except the Smith-Hughes Act (Gordon, 2008; Horn & Schaffner, 2003). These changes marked an initial attempt to balance the nation's dual educational system by expanding the scope of vocational education by streamlining its infrastructure into general education (Gordon, 2008; McClure et al., 1985).

In 1976, the Vocational Act was amended once again by legislators. The revisions addressed the issue of equity, ensuring that the act satisfied all types of workers by mitigating sex discrimination and stereotyping (Horn & Schaffner, 2003). Additionally, the new clauses allocated funding to improve planning by involving outside agencies to maximize all available resources (Gordon, 2008).

Carl D. Perkins Vocational Education Act of 1984 and Applied Technology of 1990. In 1984, the Carl D. Perkins Vocational Act amended all preceding vocational education legislation (Gordon, 2008). The primary aims of the Carl D. Perkins Vocational Act of 1984 was to ensure adults the same access to vocational education as students, and to enrich the skills of individuals entering the job market (Horn & Schaffner, 2004). Wang and King (2008) shared that “guidelines for administration of the Carl Perkins Act of 1984 include coordination of the development, submission and implementation of the state plan and evaluation of the program services, and activities” (p. 39). The modifications redirected the primary focus from expanding the program to targeting program improvement, particularly serving at-risk students (Gordon, 2008).

In 1990, vocational education was once again revamped with the signing of the Carl D. Perkins Vocational and Applied Technology Act (Gordon, 2008). This legislation allowed the federal government to spend up to \$1.6 billion a year on programs that equipped participants with the necessary skills to compete in a technologically advanced society

(Wang & King, 2008). According to Gordon (2008), “The three main focuses for this act are: (1) integrate academic and vocational education, (2) articulation between segments of education engaged in workforce preparation and (3) closer linkages between school and work” (p. 96). Additionally, this act provided disadvantaged students equal access to vocational education opportunities (Wang & King, 2008).

School-to-Work Opportunities Act (1994). In 1994, the federal government approved the School-to-Work Opportunities Act (STWOA), providing more than \$1.5 billion to support vocational education reforms to public education (Neumark & Allen, 2003). This legislation helped establish relationships between schools and businesses to merge academics with real world jobs (Maxwell & Rubin, 2000). Regarding this effort, Ohler and Levinson (2009) conveyed, “School to work emphasizes lifelong learning and is a comprehensive effort to ensure that students are ready for a continuum of possible post-school options (p. 50). School-to-work programs were intended to eliminate the division between academic and vocational curricula. New systems of instruction enlisted an infrastructure that combined academics and vocational practices to target a more heterogeneous population (Maxwell & Rubin, 2000).

The School-to-Work Opportunities Act addressed a different type of human capital—one that is more industrial and occupation specific (Maxwell & Rubin, 2000). According to Neumark and Allen (2003), STOWA “encouraged school-to-work transition systems that coordinate career orientation, academic and occupational education, high school and postsecondary schooling, work-based learning, and skilled credentialing” (p. 63). The School-to-Work Opportunities Act divided these modules into the following three components: school-based learning, work-based learning, and connecting activities

(Neumark & Allen, 2003). Maxwell and Rubin (2000) suggested that students can satisfy these components by:

- Selecting a career path cluster to explore in grade 10
- Exploring a range of career options within a career path cluster
- Maintaining a career portfolio that includes samples of their work and a school-to-career transition plan
- Completing requirements for an employability skills certificate of mastery
- Choosing a career major by the end of grade 10
- Completing requirements for a career cluster certificate of mastery
- Completing requirements for selected occupational skill certificates
- Completing requirements for graduation from high school and entrance into institutions of higher learning

Research has indicated that to ensure that students are well prepared for work, collaboration must take place between schools and employers. As such, teachers must be aware of what jobs are available and the skill-sets with which they need to equip students (Stern et al., 1992). Additionally, teachers, administrators, and school boards should all collaborate to maximize the potential of any school-to-work program (Jenkins, 2005). Critics even believe that a six-year career development plan could pave the way for students entering the work force and competing for employment that usually requires a college degree (Lewis, 2008).

Carl D. Perkins Vocational and Applied Technology of 1998. The most recent Carl D. Perkins Vocational and Technical Education Act was signed into effect on October 31, 1998, by President Clinton (Gordon, 2008). The goal was to develop a more comprehensive initiative that covered academic, vocational, and technical skills for high school and post-

secondary students who intend to pursue a vocational and technical education path (Nata, 2003). The act supported reforms that were implemented in US schools and strengthened the relationship between vocational education and general academic programs (Horn & Schaffner, 2003). Some of the conditions under this act encompass the allocation of state and local funds, state formula, application process, tech-prep, and reservation of funds (Nata, 2003).

Table 1

Major Legislation that Supported Vocational Education

Legislation	Year	Purpose
Smith-Hughes Act	1917	Each state was required to establish a state board for vocational education (Gordon, 2008).
George-Reed Act	1929	Separated vocational education from academic education (Gordon, 2008). Increase of \$1 million annually for 4 years (1930–1934) in the state of New York to fully develop agriculture and home economic vocational programs (Gordon, 2008).
George-Ellzey Act	1934	Authorized \$3 million a year for 3 years to develop vocational programs in the state of Mississippi (Gordon, 2008).
George-Deen Act	1936	Authorized \$14 million a year to develop vocational programs in the state of Georgia (Gordon, 2008).
George-Barden Act	1946	Authorized \$14 to \$29 million annually to develop vocational programs in North Carolina (Gordon, 2008).
National Defense Education Act	1958	Provided vocational training for a youths and adults in the areas of science, mathematics, foreign language, and technical competencies (Gordon, 2008).
Vocational Education Act	1963	Permitted equal access and opportunity to high quality first-class vocational education despite a student’s background or financial situation (Horn & Schaffner, 2003).
Vocational Education Amendments	1968	Allowed for the establishment of experimental, residential, vocational education school offering programs of four-year duration (McClure et al., 1985). Balance the dual educational system of the nation by expanding the description of vocational education and streamlining to vicinity of general education (McClure et al., 1985).
Vocational Education Amendments	1976	Address the issue of equity by ensuring that it satisfied the demand of all types of workers by mitigating sex discrimination and stereotyping. (Horn & Schaffner, 2003).
Carl D. Perkins Vocational Education Act	1984	Provided adults with similar access to vocational education as students, and enriched the skills of individuals entering the job market (Horn & Schaffner, 2003).

continued

Table 1

Legislation	Year	Purpose
Carl D. Perkins Vocational and Applied Technology Education Act	1990	Allowed the federal government to spend up to \$1.6 billion a year on programs that equipped participants with the necessary skills to compete in a technologically advanced society (Wang & King, 2008).
School-to-Work Opportunities Act	1994	Helped establish relationships between schools and businesses to merge academics with real world jobs (Maxwell & Rubin, 2000).
Carl D. Perkins Vocational and Technical Education Act	1998	Developed a more comprehensive initiative that covers academic, vocational, and technical skills for high school and postsecondary students who intend to pursue a vocational and technical education path (Nato, 2003).
Assembly Bill 790	2011	Approved by California’s governor, Jerry Brown, to select 20 districts for piloting systems of “linked learning” programs across California (EdSource, 2012).

The Career Academy Model Sought to Improve Education

The career academy model originated in Philadelphia and has been around for more than 40 years. Due to increases in the city’s dropout and unemployment rates, the community was forced to come together and help the school system (Mittelsteadt & Reeves, 2003). Career academies were initially established to help students stay in school and to prepare them for employment, but they have since transformed into a comprehensive high school reform strategy (Estacion, D’Souza, & Bozick, 2011; Stern et al., 1992). The academy was designed to train students to be qualified for jobs that do not require a bachelor’s degree, such as electrical trades, secretarial work, and automotive mechanics (Stern et al., 1992).

In 1969, the city of Philadelphia used Thomas Edison High School to pilot the city’s idea of a career academy. This vocational academy was geared toward the electrical industry and was successful enough to validate replication (Stern et al., 1992). This achievement led to the establishment of other academies that targeted health, media, computer technology, business and finance, engineering, and performing arts (Maxwell & Rubin, 2000) as well as to the Philadelphia High School Academy Association, also known as PHSAA. This

organization was created to establish and maintain strong ties between businesses and schools (Stern et al., 1992). According to Stern et al. (1992), from 1970 through 1988, each academy and the PHSAA were separately incorporated and had its own board of directors; but, in 1986, two studies conducted about the academies indicated that to accomplish the desired expansion of the programs, the academies should consolidate into one organization. As a result, in November of 1988, individual academies teamed up with the PHSAA, which was later rebranded as the Philadelphia High School Academies, Inc. (Stern et al., 1992). Philadelphia is now home to more than 28 academies that serve nearly 7,000 students in 17 high schools and several middle schools (Mittelsteadt & Reeves, 2003).

The career academy model has been extensively integrated into our nation-wide school system. Nearly 2,500 high schools have at least one career academy, with more academies developing each year through a variety of funding sources (Mittelsteadt & Reeves, 2003). Scholars estimate the numbers of academies falling between 2,000 and 3,000 nationally (Lehr, Johnson, Bremer, Cosio, & Thompson, 2004).

Career academies as a reform model. Within the past 10 years, the implementation of career academies has accelerated, largely due to its use as a reform initiative (Kemple, 2001). For years, our educational system has struggled to ensure that student learning is based on a high-quality, rigorous curriculum that is also applicable to the workforce (Smith, 2008). Educators have always faced the challenge of preparing students for work and educating them for model citizenship and personal growth (Maxwell & Rubin, 2000). As our country's lagging economy increasingly influences policy debates, our educational system must not lose focus on improving education and training opportunities for our students (Hyslop, 2009). Of the changes that have occurred, Smith (2008) revealed:

Fifty years ago young people could enter the labor market with far more limited skills—and limited academic credentials—and still succeed in finding remunerative, lifelong careers. Those options are vanishing, and the traditional divide between college and the workplace is blurring, as more and more careers demand postsecondary education, whether in technical schools, community colleges, or other settings. (p. 1)

Such research reinforces the evolution of career academies and how the academy model is synonymous with school reform.

Increasing competitiveness is forcing students to enter the workforce with much more training and experience. Although some signs of improvement have emerged, US students are not ready to keep pace in the increasingly global economy (Hyslop, 2009).

Studies concerning our country's graduation rate highlight a humbling statistic (Ruebling et al., 2007; Sanders, 2009). On average, 50% of African Americans, 51% percent of American Indians, and 53% percent of Latino and Hispanic students are graduating high school each year (Sammon, 2008). How our schools are organized and structured is hindering teachers and students from maximizing their full potential (Ruebling et al., 2007). Sanders (2009) has asserted, "Research has traced the malaise of high schooling – general apathy, fragmented curriculum, and unequal learning opportunities that lead to poor achievement and high dropout rates – to several specific features of high school that are especially problematic in urban contexts" (p. 260). Our current system prohibits educators from establishing schools that cultivate research-based practices related to high student achievement (Ruebling et al., 2007). Dividing up large comprehensive high schools by

instituting smaller learning communities may be the solution for low-performing students (Sammon, 2008).

Research has indicated that smaller schools can foster better academic results (Lee & Friedrich, 2007; Oxley, 2001). As of 2008, high schools are heavily populated. Seventy percent of high schools have a population that exceeds 1,000 students; nearly half of which has a student body that tops 1,500 students (Cleary & English, 2005). Acceptance to postsecondary education for high school students is dictated by a set of admission standards that provide the incentive to perform at a high level (Maxwell & Rubin, 2000). Increasingly research has supported the correlation between smaller schools and higher student achievement (Cleary & English, 2005). Although some research has fallen flat on showing alignment between school size and student success, that schools with lower enrollment perform at a higher level than similar schools with higher enrollment has been proven (Styron & Peasant, 2010). Because it supports this level of success, this is one reason that the career academy model has been extensively integrated into our nation's educational system (Smith, 2008).

Career academies operate as a school within a school, and are reinforced by an academic and vocational curriculum that supports students and teachers working with community partners and local businesses to foster skill development and academic success (Maxwell & Rubin, 2000; Oakes & Saunders, 2008; Stern et al., 1992). This model, which has existed for nearly 40 years, has been at the forefront of high school reform aimed at increasing student achievement and preparing students for either postsecondary education or the workforce (Estacion et al., 2011). Academies allow autonomy within the school community for grades 9 to 12 or 10 to 12 group teachers and cohorts of student, thus

enabling them to remain together until graduation (Hyslop, 2009; Maxwell & Rubin, 2008). The initial intention of this model was to target at-risk students or those of lower socioeconomic status; however, career academies have come to serve a cross-section of the high school population by fostering a college- and career-awareness culture (Lehr et al., 2004).

What characteristics are unique to career academies? Generally, career academies share three characteristics: (a) a small learning community, (b) a theme-based curriculum, and (c) business partnerships with community employers and postsecondary education (Kemple, 2001; Kuo, 2010; Sanders, 2009; Stern et al., 1992; Stern et al., 2010, Styron & Peasant, 2010). See Figure 1.

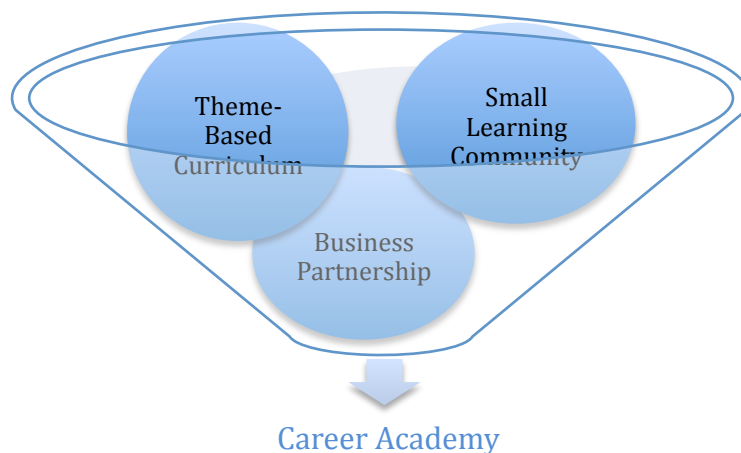


Figure 1. Three common components of career academies.

Career academies are small learning communities. Since the 1983 publication of *A Nation at Risk*, the concept of small schools has resurfaced as the driving force of high school reform (Lee & Friedrich, 2007). This report directly underlined that the United States was falling behind in global competition because its educational system was failing to provide students with much-needed technical experience and knowledge, as reflected by the

substandard performance of its high schools (Gordon, 2008; Maxwell & Rubin, 2000). At the turn of the 21st century, scholars proposed addressing this educational disparity by implementing smaller learning communities (Lee & Friedrich, 2007).

The SLC program was endorsed under Title V, Part D, Subpart 4 of the Elementary and Secondary Education Act of 1965 (ESEA) (20 U.S.C. 7249), and later amended by the No Child Left Behind Act of 2001. This initiative allowed for planning, implementing, and expanding smaller learning communities in high schools, financed with \$275 million from the federal government. Fundings by The Bill and Melinda Gates Foundation to schools across the country supported the implementation of this proposal (Sparger, 2005). Since 2000, 1,076 high schools across the nation have implemented a variety of small learning communities, such as 9th-grade academies and career-themed academies (Lee & Friedrich, 2007). Small learning communities are small and intimate by design with more personalized environments for teaching and learning (Sammon, 2008).

Career academies function as part of comprehensive high schools but are small by design (Smith, 2008; Stern et al., 1992). This concept is known as a small learning community (SLC) or a school-within-a-school model (Dayton, 2010; Smink & Schargel, 2004; Stern et al., 2010). Often, small schools will use size to their advantage by personalizing their learning environments to support student success (Oakes & Saunders, 2008).

Research has shown that breaking schools into smaller units has a positive impact on student achievement and psychological well-being (Oxley, 2001). Smaller schools have been shown to decrease dropout rates and improve both attendance and graduation rates by providing a supportive environment that maximizes the high school experience (Fischetti &

Smith, 2010; Kuo, 2010). According to Kuo (2010), not only do “SLCs exhibit positive effects on academic achievement and attainment, [but also] smaller schools benefit low socioeconomic students and therefore improve equity” (p. 392). Additionally, SLCs promote inclusive programming, on-going refinement of programming, and applicable curricula for students (Oxley, 2005). Lindsey, Jungwirth, Pahl, and Lindsey (2009) have explained, “A common element of the vision of small learning communities is each child succeeding in a rigorous and relevant curriculum supported by a personalized and knows their personal goals, learning styles, and academic and social needs” (p. 43). Building a strong and caring culture that fosters high expectations for all students and that values all students as members of a cohort that partakes in democratic and social values such as fairness, respect, and trust are pillars of a small learning community (Oakes, & Saunders, 2008).

SLCs contribute to the effectiveness of career academies. The enrollment size of the academy contributes to the effectiveness of the concept. Career academies function as part of comprehensive high schools but are kept small by design (Smith, 2008; Stern et al., 1992)—a concept also known as a small learning community (SLC) or a school-within-a-school model (Dayton, 2010; Smink & Schargel, 2004; Stern et al., 2010). Often, small schools will use size to their advantage by personalizing their learning environment to support student success (Oakes & Saunders, 2008).

Other than the small size, additional elements facilitate small learning community development (Oxley, 2001). Building blocks of small learning communities consist of academic teaming, diversifying communities, supporting communities, legitimizing communities, and creating professional learning opportunities for communities (Lee & Friedrich, 2007; Supovitz & Christman, 2005). Leadership at the site and district level must

support smaller learning communities by providing adequate professional development that meets the needs of particular communities (Oxley, 2005; Supovitz & Christman, 2005).

Leadership for the small learning community concept should support teaching, observations, and collaboration; also known as *academic teaming* (Supovitz & Christman, 2005). Communities must develop a framework that maximizes individuals' contributions and decreases the issues that commonly afflict small groups (Bowman & Deal, 2008). For example, members must be accountable for their roles, contributions, and participation (Dufour et al., 2008). Additionally, these communities should use student data to guide their analysis on current policies and practices, and to recalibrate any areas that have room for improvement (Dufour et al., 2008; Lindsey et al., 2009).

Leadership of small learning communities must diversify communities. To do so, leaders must support both horizontal relationships by encouraging grade-level collaboration and vertical relationships that strengthen articulation across different grade levels (Supovitz & Christman, 2005). Ensuring success from systems of intervention requires both a collective and coordinated effort (Dufour et al., 2008).

Collaboration is critical for supporting small learning communities (Dufour et al., 2008; Oxley, 2001). Leadership must support and provide time for collaboration so teachers can discuss and improve on instructional practices to maximize student learning (Supovitz & Christman, 2005). Given the multiple dimensions of school structure and culture, educators must have opportunities to use each other as resources to establish informal systems of intervention to address the needs of the students and the community (Lindsey et al., 2009).

Site and district leadership must legitimize small learning communities by clearly define the role of the community leader and recognize their differences from the roles of

principals (Supovitz & Christman, 2005). Coherence and specificity produces effective leaders (Dufour et al., 2008). Leadership capacity will be fully maximized by all participants when their roles are clearly defined (Fullan, 2010). Every team needs an infrastructure that clearly spells out individual job descriptions (Bowman & Deal, 2008).

Teachers and leaders of small learning communities require ongoing professional development and a variety of collaborating methods to support personal and professional growth (Supovitz & Christman, 2005). The interpretation of teamwork will lose meaning without adequate training (Bowman & Deal, 2008). Professional development is critical for maintaining well-trained teachers, who are the driving force behind successful schools (Gusky, 2009).

Despite differences among academic teaming, diversifying communities, supporting communities, legitimizing communities, and professional learning opportunities for communities, they all serve the purpose of a small learning community (Lee & Friedrich, 2007; Supovitz & Christman, 2005). However, other necessities exist for academies to reach their full potential.

Theme-based curriculum. Career academies seek to combine academics and a career-based curriculum. Curriculum is one of the key elements that separates a career academy from a traditional high school (Maxwell & Rubin, 2000; Stern et al., 1992). Academies are guided by career strands that serve as a blueprint for curriculum development and capturing student engagement (Smith, 2008). Career academies combine a college-preparatory coursework with vocational/technical content that aligns with a career theme (Hyslop, 2009; Maxwell, & Rubin, 2000; Stern et al., 2010). Both portions are vital, integrated horizontally, and show correlation between academic skills and real-world jobs or

possible postsecondary education (Stern et al., 1992). This approach accommodates a variety of program components and model elements while cohesively tying academic experiences to a comprehensive secondary school experience (Kuo, 2010).

A theme-based curriculum attempts to incorporate both school-based and work-based learning (Maxwell & Rubin, 2000; Olson, 1997).

School-based learning. School-based learning is the practical understanding of a subject and usually takes place in the classroom (Jong et al., 2006). School-based learning generally occurs by collaborating with business partners to provide technical assistance on establishing a solid academic program (New Hampshire State Dept. of Education, 1999). Because they prefer well-prepared entry-level workers, businesses would rather have some influence on the academic program's curriculum—as opposed to just assuming that students are being appropriately prepared for the work force (Stern et al., 1992). Both employers and students benefit from school-based learning through increased productivity and earnings. Students are more likely to conceptually understand and retain academic concepts when they are given the opportunity to use content knowledge in out-of-school contexts (Oakes & Saunders, 2008). Acquiring proficiency in a certain skill-set at school increases one's opportunity to succeed in higher education, opening up the opportunity to gain more human capital and establishing the framework for lifelong learning (Maxwell & Rubin, 2000).

An educated workforce contributes to the growth of a modern economy (Keely, 2007). Those who are younger and least educated are at a disadvantage because today's society offers incentives to individuals with more competence and skill (Olson, 1997). Education provides an infrastructure that requires the use of one's mind in ways that lead to social profit (Moore, 1915). As a result, education engenders a highly qualified labor force

that enjoys better-paying positions (Keely, 2007).

Work-based learning. Work-based learning consists of structured activities taking place at the job-site that prepare students with the experience, knowledge, and ethics to flourish at work and in society (Cunningham et al., 2004). Work-based learning streamlines the effectiveness of small learning communities by integrating practices for students to learn and apply their skills outside of the classroom (Cunningham et al., 2004; Rattray, 2008). Generally, work-based learning encourages students and/or school personnel to visit job sites and learn about the variety of attributes that connect to classroom activities (New Hampshire State Dept. of Education, 1999) by aligning theory with practice, and knowledge with experience (Raelin, 2008). Work-based learning can be developed through action learning, apprenticeship, career advice, continuing professional development, internship, mentoring, networks and communities, qualifications, self-managed learning, and team development (Cunningham et al., 2004).

Learning often takes place beyond the classroom (Bailey, Hughes, & Moore, 2004), by allowing students to participate in hands-on activities at the job site and fostering the acquisition of transferrable skills (Raelin, 2008). Internships, paid work experiences, and job shadowing are different methods to help students connect classroom activities to job-site experience with business partners (Stern et al., 2010). As such, students gain applicable experience that cannot be purchased (Oakes & Saunders, 2008). When accomplished well, this practice can reinforce the overall job market preparation of many young people (Bailey et al., 2004). Work-based learning promotes positive transitioning into careers by enabling individuals to acquire work-related skills (Raelin, 2008).

Business partnerships are essential. The third key element that highlights the uniqueness of career academies is partnerships with local businesses and colleges. Career-themed academies integrate relationships with employers and postsecondary education to help students gain experience that joins their subject and career field (Stern et al., 2010). Such relations can benefit students by providing employers with the option of hiring them upon graduation (Oakes & Saunders, 2008). This bridge is formed by incorporating insights from industry partners when constructing the academy curriculum and by enabling academy student exposure to the jobsite through shadowing, internships, and actual paid work experiences (Sanders, 2009). Strong ties between academies and employers will likely lead to more students being hired with higher wages (Oakes & Saunders, 2008).

Additional Components of a Successful Academy

Much goes into making an academy successful. Management and staffing, student selection, and counseling and parental involvement all play a pivotal role (Dayton, 2010; Kemple, 2001; Oakes & Saunders, 2008; Orr, 2005).

Management and staffing. Management and staffing play a pivotal role in an academy's success. Academy teachers must be selected meticulously (Stern et al., 1992). As Orr (2005) posited, "Teaching in a career academy can uniquely contribute to teachers' sense of professional identity, their teaching, their work with colleagues, and their focus on and support of students" (p. 480). Teachers, students, parents, and other staff members of the academy must adhere to a common vision and speak a common language (Stern et al., 1992). The academy model is designed to incorporate teachers from across the curriculum, working as a team and serving the same group of students for more than a year (Dayton, 2010; Stern et al., 1992). Out of the group of academy teachers, one is selected to serve as the academy

coordinator by the principal (Dayton, 2010; Lehr et al., 2004; Stern et al., 2010). The academy coordinator takes the responsibility of serving as a liaison among the academy, administrators, and business partners (Stern et al., 2010). This model requires a shift from a hierarchical culture to a culture that is more intrinsic, participatory, and collaborative (Oakes & Saunders, 2008).

Besides an academy coordinator, most academies have an advisory board comprised of the academy coordinator, site administrator, district administrator, higher education representative, and local business representative (Dayton, 2010; Lehr et al., 2004; Stern et al., 1992). The advisory board helps with curriculum development and internship opportunities (Stringfield & Land, 2002). Additionally, it may provide academies with guest speakers, financial support, and sometimes mentor individual students (OECD, 1999; Stern et al., 2010).

Student selection. When they originated, career academies had the intent of preventing at-risk students from dropping out of school by preparing them for the labor market (Stern et al., 1992). Since the 1990s, career academies have recalibrated their focus by targeting both high-performing and at-risk populations for employment and postsecondary education (Kemple, 2001; Lehr et al., 2004). In California, 50% of the enrollment of state-funded academies must meet certain criteria (Lehr et al., 2004; Stern et al., 1992). According to Stern et al. (1992), California legislation for the partnership academies defines as eligible a student who has three or more of the following characteristics: (a) irregular attendance, (b) past record of underachievement, (c) a low level of interest in the regular academic program, (d) economic or educational disadvantage, or (e) interest in the academy program, willingness to change study and behavior habits, and motivation to start on a career path (p.

81). The other 50% of the academy's enrollment does not have to meet these criteria (Lehr et al., 2004). Targeting both the high- and low-performing students provides both the academy and its students with multidimensional learning experiences (Oakes & Saunders, 2008).

The recruitment period varies from academy to academy. Most academies are comprised of 10th, 11th, and 12th-graders, but some extend their programs to 9th-graders as well (Lehr et al., 2004). Because most academies are geared toward 10th-12th-graders, recruitment for the academy's 10th-grade class begins during the second semester of the 9th-grade year (Stern et al., 1992).

Counseling and parental involvement. Career academies, or any theme-based small learning community with a curriculum that integrates career technical education and contextualized learning strategies should provide extra counseling resources (Oakes & Saunders, 2008). On this subject, Stern et al. (2010) have explained "Career counseling informs students about options and planning for employment and further education, which may or may not be related to the academy career theme" (p. 5). School counselors should regularly collaborate with academy teachers to discuss scheduling issues and to monitor graduation status (Stern et al., 1992). In addition to teaching, teachers should play the role of guidance advisors, because academy students require continuous monitoring of attendance and grades to meet graduation requirements (Stern et al., 1992).

Comparably, the same type of monitoring and support from parents or family members contributes to increased student success (Lehr et al., 2004). Parents should constantly receive updates regarding student performance and attendance, as doing so validates them as partners in the education process (Stern et al., 1992). Parents must be aware of their influential and preventive powers, and be available when problems arise, so they may

discuss and decide on an action plan that will be monitored at home (Dayton, 2010; Patrikakou, Weissberg, Redding, & Wahlberg, 2005). Maximizing the possibilities of student success should be a combined effort between educators and parents (Lehr et al., 2004; Patrikakou et al., 2005).

What are Multiple Pathways?

In 2003, the Multiple Pathways reform captured the national spotlight through reports on restructuring high schools that endorsed the *pathways* or *multiple pathways* approach (Oakes & Saunders, 2008). Oakes and Saunders (2008) have defined multiple pathways as:

High school reform that replaces the ubiquitous comprehensive high school with a portfolio of smaller high schools and programs within high schools (“pathways”) that provide both the academic and real-world foundations students need for advanced learning, training, and preparation for responsible civic participation. (p. 6)

Robert J. Monson, superintendent of Independent School District 197 in Mendota Heights, Minnesota, introduced and adopted the multiple pathway concept (Monson, 1997). Monson’s district received a grant of \$20,000 to examine the model as an unprecedented approach to helping students graduate (Monson, 1997). The multiply pathway approach was one possible strategy for addressing the latest commitment by the federal government to develop a graduation model governed by graduation standards (Monson, 1997).

Studies revealed that the pathway approach benefited both the schools and their students in a variety of ways (Kang & Bishop, 1989; Stern et al., 1992). This design not only helped reduce dropout rates while increasing academic achievement, but also increased students’ financial return as entry-level workers upon graduation (ConnectED, 2008). The concept of multiple pathways can be engineered through a variety of models, such as career

academies, small autonomous schools, magnet programs, small learning communities within large schools, and occupational training centers (Oakes & Saunders, 2008). Despite the variety of pathway concepts, the approach requires four main program components: (a) an academic core component, (b) a career-technical core component, (c) a work-based learning component, (d) and a support services component (EdSource 2009; Oakes & Saunders, 2008). See Figure 2

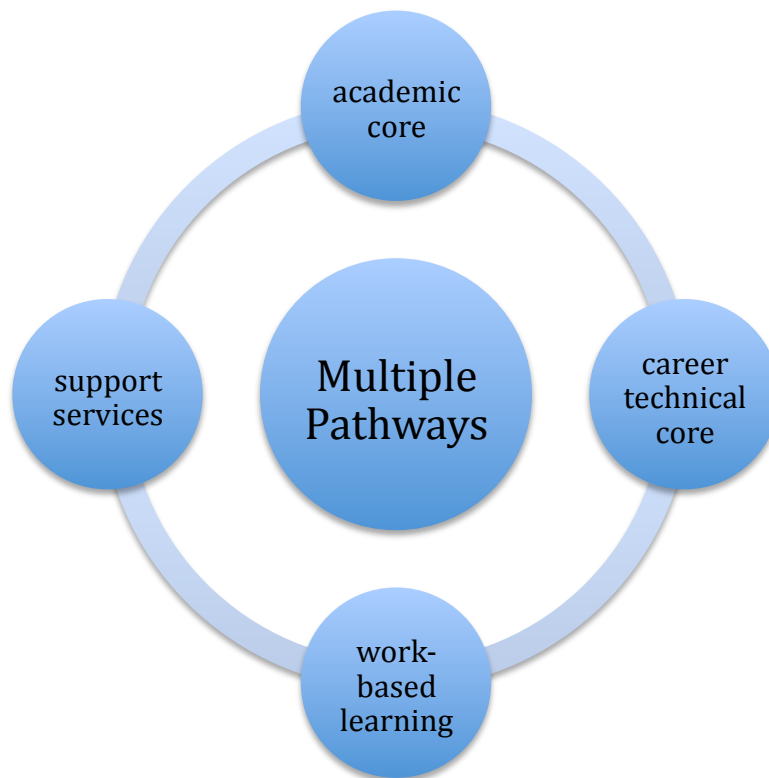


Figure 2. The core components of multiple pathways.

Each component is a seminal piece that contributes to the multiple pathways concept. The academic core component satisfies California’s A-G requirement for high school graduation (EdSource, 2009). The career technical core establishes a foundational background related to the career of choice and offers much-needed experience for entry-level work; this component fulfills part of the A-G requirement (EdSource, 2009; Oakes &

Saunders, 2008). Work-based learning allows for job shadowing and internships. This piece of the pathway helps students stay motivated to learn by bridging the gap between academics and the workforce (EdSource, 2009; Maxwell & Rubin, 2000; Stern et al., 1992). Finally, support services provide intervention while ensuring that students are fulfilling the correct requirements for graduation (EdSource 2009; Oakes & Saunders, 2008).

How Do Multiple Pathways Benefit High School Students?

The multiple pathways model is designed to combine academic and career-technical education that equips students with a set of skills and sidesteps a tracking system that does not promote a college-going culture (Stern & Stearns, 2008). Most high school reform encompasses student preparation for postsecondary education by decreasing the dropout rate, increasing student achievement, and encouraging lifelong learning (Castellano & Stringfield, 2003). We know, on average, that higher education equates to a higher salary. The financial return on a college degree is higher than that of a high school diploma; on the same note, a high school graduate will earn more than a high school dropout (Stern & Stearns, 2008). Personalized emotional support and intellectual engagement combined with a themed curriculum contribute to the effectiveness of the multiple pathway design (Quartz & Washor, 2008). A college-going culture grounded in a vision to prepare students with 21st-century workforce skills will provide options after high school (Quartz & Washor, 2008). Multiple pathways offer students opportunities to become involved with the community and gain site-based educational experience throughout their high school years (Howard & Ill, 2004).

Career Academies and Multiple Pathways

Multiple pathways can be implemented through career academies; however, students must have the option of continuous learning, entry-level preparation for the changing labor

market, and access to post–high school employment assistance (Stoll, 2008). As noted earlier by Stern et al. (1992), career academies exist as a school within a school that involves peers, teachers, and community partners—including businesses—to foster skill development and high academic achievement. Both career academies and multiple pathways are grounded in similar characteristics: (a) an academic core component, (b) a career-technical core component, (c) a work-based learning component, (d) and a support services component (EdSource 2009; Oakes & Saunders, 2008). Research has shown that students of such pathways tend to outperform similar students within the same high school (Stern & Stearns, 2008). These students had better attendance, received more credits, earned higher grades, and were more likely to graduate from high school (Howard & Ill, 2004; Maxwell & Rubin, 2000; Stern et al., 1992). Despite many similarities between multiple pathways and career academies, the two also share very common stigma—the issue of tracking (Stoll, 2008).

How Does Tracking Influence Career Academies?

Throughout the 20th century, educational tracking has generally been perceived in a negative light (Loveless, 1999). According to Oakes (2005), “In almost all schools, choice has become an increasingly salient factor in placing students in tracks, shifting the responsibility for differentiated opportunities, resources, and expectations from the school to the students” (p. 6). Tracking was once used to deal with the gap between students who wanted to attend college and those who actually completed college. This practice was accomplished by filtering students through either a college or a vocational pathway (Rose, 2008). However, tracking later earned a reputation for being a disservice to low-performing students by setting parameters on the learning abilities of students (Carbonero, 2005; Rose, 2008).

Vocational education has long been perceived as a model tailored for students who are “not on the college track” (Stern et al., 1992). Non-college-bound students had access to curriculum that was separate from that offered to more academically inclined students (Rose, 2008). Under the provisions of federal guidelines, vocational programs that prepare individuals for the workforce without the minimum requirement of a college degree have suffered from this stigma (Stern et al., 1992).

The state of California is aware of this stigma. Moreover, increases in diversity contribute to the division of class, race, and residential location (Rumberger, 2011). As mentioned earlier, state-funded academies are mandated to serve a majority of students who are economically or educationally disadvantaged while serving a cross-section of the high school population (Lehr et al., 2004; Stoll, 2008). Some believe that career academies may provide promising results (Stoll, 2008).

Multiple Pathways and Linked Learning

In 2010, the state of California adopted a new name for multiple pathways: Linked Learning (EdSource, 2009). As mentioned, multiple pathways is a comprehensive approach to high school reform that blends academics, career technical learning, work-based learning, and support services (EdSource, 2009). However, on the East Coast, the trade name “multiple pathways” is affiliated with intervention. According to EdSource (2009), “A recent brief published by the Alliance for Excellent Education notes, multiple pathways is frequently used on the East Coast to refer to alternative programs for students at risk of dropping out of school” (p. 3). Besides the new label, no modifications were made to the design. Students still followed career-themed pathways by maximizing their high school experience through strong academics blended with career and technical education that

enhances real-world experience to help them gain leverage in postsecondary education and careers (ConnectEd, 2010). Besides the stigma affiliated with multiple pathways, the name was changed to Linked Learning because it clearly brought out the benefits to the entire school community and policymakers (The James Irvine Foundation, 2011).

How Can Human Capital Theory Inform the Career Academy Model?

Human capital theory pertains to acquiring a set of skills that helps one become more valuable to an organization (Prinz, 2004). Gary Becker, Jacob Mincer, and Theodore Schultz developed this theory in the 1960s (Prinz, 2004). Mincer established an economic concept supporting the human capital model, asserting that individuals can add to their personal growth through different opportunities such as training programs, receiving an education, and/or working in job that increases their skill-set (Haveman et al., 2003). According to Schultz (1961), “Much of what we call consumption constitutes investment in human capital” (p. 1). Education, health, and internal migration are all upfront spending that allow individuals to benefit from better job opportunities (Schultz, 1961). Becker developed the notion that an individual’s degree of on-the-job training (OJT), learning and gaining the skills, knowledge, and experience by performing the actual job will influence his or her future capacity in the labor market (Cunningham et al., 2004; Prinz, 2004).

Human capital manifests as an individual who procures newly acquired skills and capabilities that liberate him/her to act in new ways (Coleman, 1988). Instances of human capital theory may be through employment, where the development of both general and specific human capital on the job will contribute to higher wages (Maxwell & Rubin, 2000) or by investing in education whereby the sacrifice of financial investment is frontloaded for future higher earnings (Maxwell & Rubin, 2000; Prinz, 2004).

The importance of education extends beyond financial value (Lleras, 2004). Education provides a framework that helps maximize our potential. Lleras (2004) has explained:

Education permits a person to make better use of their intelligence, and are capable of doing things for themselves, since they can use their knowledge to improve their quality of life while being able to transfer a set of commonly accepted values that can hold social institutions together without the use of coercion. (p. 9)

As a result, education transcends into opportunities to improve the quality of life.

The relationship between economics and education can be assessed through the lens of Human Capital Theory (Gaynor, 1998). Grounded in Human Capital Theory, the school-to-work model fosters the idea that higher education will contribute to higher earnings by equipping individuals with skills to explore their options (Gaynor, 1998; Maxwell & Rubin, 2000). The perception that individuals are rational maximizers of their economic benefits is also grounded within the discipline of this theory. People who invest in themselves—usually through the form of higher education—will earn higher wages and experience more fulfilling lifestyles (Gilead, 2009; Keely, 2007).

Why Invest in Human Capital?

Investment in personal well-being is directly linked to human capital theory (Schultz, 1961). Such investment comes in many different forms, such as school, on-the-job training, medical care, vitamin consumption, and building knowledge about the economy (Becker, 1962). As Schultz (1961) articulated, “Investment in education has risen at a rapid rate and by itself may well account for a substantial part of the otherwise unexplained rise in

earnings” (p. 10). Those who build their human capital by investing time, effort, and resources will reap returns in the form of higher wages, gratifying work status, or even the leisure of understanding global economy—all of which are benefits from an education (Coleman, 1988).

Conclusion

Multiple variables influence the outcomes of high school students. Aligning college-preparatory academics with real-world work training in the form of career academies continues to be an educational priority as schools address lowering dropout rates and raising academic achievement. The career academy model confronts these issues by personalizing emotional support through small learning communities with a career theme and partnering with businesses to offer hands-on training opportunities. Despite the historical stigma of a vocational education that prepares individuals for the workforce without a college degree, career academies have grown into a reform that promotes both college and career awareness.

The career academy model is one of the few reform strategies to be mainstreamed into our educational system throughout the country. This model has been around for over 40 years and continues to evolve due to global competition in the workforce (Maxwell & Rubin, 2000; Oakes & Saunders, 2008; Stern et al., 1992). From traditional schooling, to vocational education, to a hybrid of both (career academies)—and now linked learning—career academies have evolved due to a variety of reforms (Gordon, 2008; Oakes & Saunders, 2008; Ohler, 2009). As researchers begin to dissect the effectiveness of career academies, the implications of the data become more apparent (Castellano & Stringfield, 2003; Howard & Ill, 2004). Indeed, this data validates integrating both academic and vocational education to

equip students with the skills, experience, and knowledge they need to compete locally and globally.

Chapter Three: Methods and Design

Introduction

This chapter describes the research design and methodology used to implement a qualitative case study to examine how the career academy model was implemented at a large urban high school. The sample group, site description, and procedures for the data collection and analysis will be detailed in this section. In addition, the study's design consisted of a survey, interviews, observations, and analysis of artifacts. The instrumentation used to support this study will be provided, and the procedure for conducting surveys, interviews, observations, and collecting artifacts will be specified. Finally, this chapter will describe the artifacts that were collected and analyzed to support the research.

This research implemented a qualitative case study in which qualitative and quantitative data collection strategies were utilized. The survey captured a general sense of the varied perceptions of academy teachers, as multiple academy teachers reflecting on their current and past academy experiences. Selected participants were interviewed based on their academy experience. The interviews revealed participant perceptions about the academy model, providing a richer understanding of the survey's outcome. Classroom observations and artifact analysis related to the career academy model completed the data triangulation and further validated the participants' experiences. The data set is discussed further below.

Rationale

A review of the literature has indicated that career academies consist of three main components: (a) a small learning community, (b) a theme-based curriculum, and (c) partnerships with businesses. When academies effectively implement these elements, students are more inclined to perform at a higher level (Stern et al., 1992). However, it is

unclear how effectively secondary schools implement the three components at various sites. Consequently, this study analyzed how two career academies at one urban, comprehensive high school implemented the three core components and explored possible relationships between teaching and learning. The study sought to provide an overview of the academies' impact, and how the two academies are implementing the career academy model. This study's findings provided the school with immediate knowledge and recommendations on how to improve both academies.

This research project employed a qualitative case study approach with mixed-methods data collection strategies. Over the last 20 years, the use of mixed-method approach has evolved as a rich alternative to the dichotomy of qualitative and quantitative design (Teddlie & Tashakkori, 2009). As its name suggests, a mixed-method design combines both quantitative and qualitative research methods to provide a more comprehensive answer to research questions. Using both methods to collect more varied data can strengthen the validity of a study's conclusions (Butin, 2010). Adding a second research method can minimize the limitations and biases of a single method (Creswell, 2009); for example, survey findings can serve in developing more specific questions for interviews (Creswell, 2007). These multiple forms of data are especially important when we triangulate multiple data sources within a case study.

Design

This research implemented a case study design that investigated both a program (career academies) and its participants (academy teachers). Case study research often focuses on a phenomenon, such as a particular event, situation, program, or activity (Hancock & Algozzine, 2006). Yin (2009) has asserted, "A case study is an empirical inquiry that

investigates a contemporary phenomenon in depth and within its real-life context” (p. 18).

This study supported Yin’s claim by researching how contemporary schools were integrating career academy programs as an initiative toward educational reform. Case studies are conducted in their natural contexts, bounded by space and time (Creswell, 2009). This research examined how two different career academies implemented the career academy model at one school site (See Figure 3).

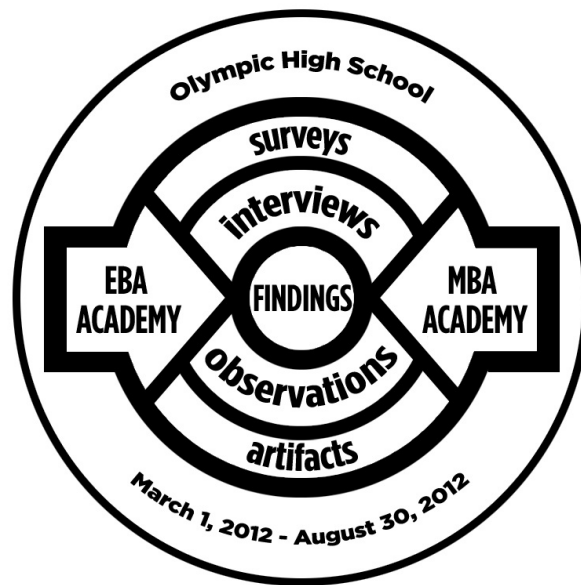


Figure 3. The case study design.

This case study was a collective case study. In collective case studies, the researcher can select either several programs from several sites or multiple programs within a single site (Creswell, 2009). This study drew from two career academies within the same school site. Yin (2009) has suggested that researchers using collective case study designs use the logic of replication by repeating the procedures for each case. In this spirit, this design followed one common series of steps. The steps were identical for both academies that participated in this study. Teachers from both academies were surveyed, and selected teachers were observed

and interviewed. Additionally, identical artifacts from both academies were analyzed throughout this study.

Site

Research was conducted at Olympic High School, a large urban high school located in the metropolitan area of Southern California. Olympic High School (OHS) is a public school that offers an extensive standards-based curriculum and seeks to prepare its students for postsecondary educational opportunities. Some of the programs it offered include AVID, Read 180, career academies, AP/Honors, CAHSEE Prep, and Algebra Essentials (School Accountability Report Card, 2011).

At the time of this study, Olympic High serve grades 9–12 and enrolled 2,189 students. Located in the metropolitan area of Southern California, the school’s demographic consisted of 66% Hispanic students and 24% African American students; the remaining 10% consisted of Asians, Whites, Native Americans, and Pacific Islanders. Olympic High was classified as a Title 1 school because 87% of its student population received free or reduced lunch. Of the 2,189 students, 30% (665 students) was English learners and 10% received special education services. Finally, the California Department of Education identified Olympic High School as an overcrowded school.

Academically, 25% of the OHS student body tested at proficient or advanced on the English Language Arts standardized test, whereas 8% tested at proficient or advanced on the math standardized test. (See Figure 4) With regard to statewide rank—1 being the lowest and 10 the highest—Olympic High School had earned a 1 at the time of this study. In similar school ranking—1 being the lowest and 10 the highest,—Olympic High was ranked 3 (School Accountability Report Card, 2010). Additionally, under the federal mandates of No

Child Left Behind (NCLB), Olympic High was identified as a program improvement school (year 6), due to its failure to make adequate yearly progress (AYP) set by the state in both English Language Arts and mathematics.

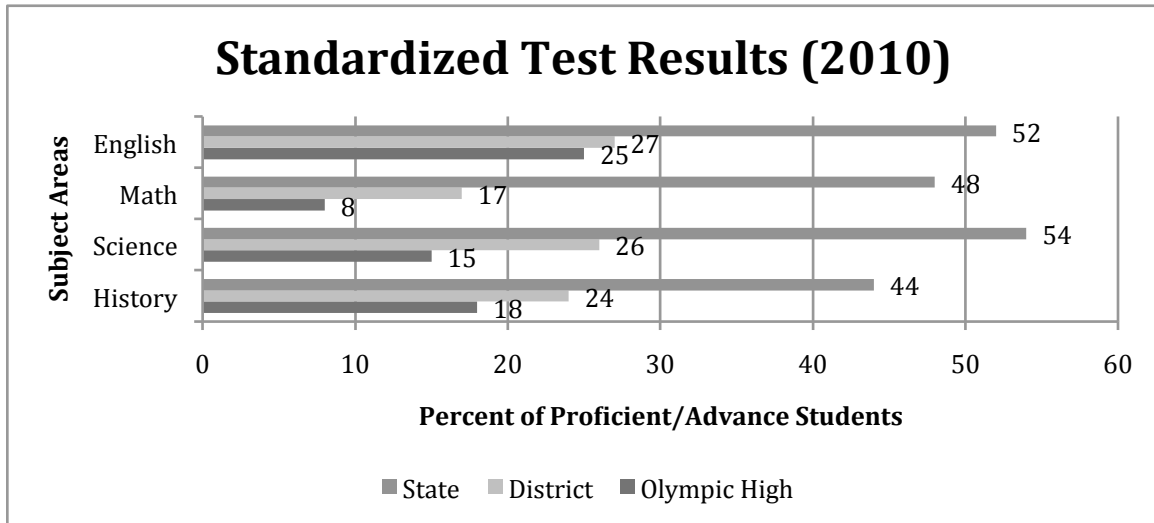


Figure 4. Olympic High School 2010 Star test results.

Despite this label as a consistently low-performing school, recent increases in test scores and school improvements had helped reshape the OHS culture and morale. By 2012, the school’s API score had increased from 567 to 634, and the number of students taking advanced placement courses had nearly doubled. Graduation rates were rising, while the number of suspensions had decreased from 962 (2009–2010) to 351 (2010–2011).

Additionally, in 2010, the district’s decision to remove the school’s 10-foot high steel entrance fence became a symbolic representation of the safety and improvement of the school over the past decade.

Olympic High School has two career academies. For the purpose of this study, the academies will be identified as *Environmental-Based Academy* (EBA) and *Media-Based Academy* (MBA). Both academies usually enrolled 60 to 70 students per year, serving grade levels 10–12, and both were structured in a similar cohort model. Students were assigned to

academy teachers in the subject areas of English, math, history, and science. Both academies were California Partnership Academies (CPA), and therefore received state funding, but thus had to adhere to CPA enrollment guidelines: 50% of the academies' enrollment had to consist of at-risk students. At-risk students must have three or more of the following characteristics: (a) poor attendance, (b) history of underachievement, (c) low level of interest in the regular academic program, or (d) economic or educational disadvantage (Stern et al., 1992).

The Environmental-Based Academy (EBA) teaches students how to appreciate, preserve, and advocate for the environment. Students study socioeconomic issues as they prepare for careers related to the environment. The EBA served grades 10–12 and, at the time of this study, had approximately 174 students. Of the 174 students, 68 were 10th-graders, 60 were 11th-graders, and 46 were 12th-graders. Every year, the EBA recruited about 60 to 70 new 10th-graders to join the academy. Students were recruited at the end of their 9th-grade year through recruitment and club fairs held on campus during lunch. The academy's demographics were nearly identical to the school's: 72% Hispanic, 18% African American, with the remaining 10% consisting of Asians, Whites, Native Americans, and Pacific Islanders.

The EBA Academy's curriculum meets A-G requirements for graduation. The following table provides an overview of classes that EBA students must fulfill to meet graduation requirements. (See Table 2).

Table 2

Environmental-Based Academy’s Coursework

10 th Grade	11 th Grade	12 th Grade
EBA English 10	EBA English 11	EBA English 12
Environmental Chemistry	AP Environmental Science	Environmental Law (2012)
EBA Geometry / Algebra II	EBA Algebra II	EBA Government
Journalism	Environmental Design (2012)	Economics
EBA World History	EBA US History	

The second academy at Olympic High School was the Media-Based Academy (MBA). Since 1999, the Media-Based Academy had developed a community of critical thinkers and technological artists. The MBA also served grades 10–12 and, at the time of this study, had approximately 195 students. Of the 195 students, 75 were 9th-graders, 67 were 11th-graders, and 53 were 12th-graders. The MBA also recruited about 60 to 70 10th-graders to join the academy every year. Just like the EBA, the MBA’s demographics similarly reflected those of the school: 69% Hispanic, 20% African American, and 11% others. MBA students were required to take courses aligned to the academy’s theme. (See Table 3)

Table 3

Media-Based Academy’s Coursework

10 th Grade	11 th Grade	12 th Grade
MBA English	MBA English	MBA English
MBA Math	MBA Math	Government
World History	Chemistry	Economics
Biology	U.S. History	Game-Art Development
Multimedia Arts or Creative	Digital Media Arts or	Digital Film Production II
Screenwriting	Digital Photography or	
	Digital Film Production	

At the time of this study, the school's reputation was still recovering from the gang epidemic that had plagued the entire school community for nearly a decade. Some students were still worried about their personal safety more than their academic well-being. In addition, racial tension had led to fights, riots, and lockdowns that negatively impacted the school's image. In 2009, OHS issued 508 suspensions and expelled 26 students. In 2012, the number of suspensions dropped to 275, and 8 students were expelled.

Recent to the time of this study, the 80-year-old school was sporting a new look, as the first phase of a year-long construction project had ended, resulting in three two-story buildings housing 44 new classrooms. All of the classrooms on campus—new and old—were equipped with state-of-the-art white boards to assist teachers in creating more interactive lessons. The new classrooms along with the technology provided a learning environment that was safe, clean, and interactive for academy students. The second phase of another year-long construction project began in June of 2012. When completed, the second phase would be the new home of one the school's career academies along with the student cafeteria.

The local city demographics were almost a mirror image of the school. The population was 32,769, consisting of 61% Hispanic, 10% African America, 10% Asian, 16% White, and 3% others (USA state and country facts, 2011). Occupations held by local residents consisted of 21% as managerial professionals, 31% sales, 21% service occupations, 17% production and transportation, and 11% construction and maintenance. The school's surrounding community consisted of working class families living in apartments and single-family homes. Olympic High was neighboring many aviation, import/export, and small businesses. The city's history of working class residents dated back to the early 1900s, at which time, most the city's residents were involved with agricultural labor, raising crops,

sheep, and poultry. At the time of this study, most of the students who attended Olympic High came from low to low-middle socioeconomic classed. The city's median household income was \$46,459 and the poverty level was at 14% (USA state and country facts, 2011).

Sample

As a qualitative study with a mixed-method design, the study had one set of participants that all participated in the surveys and a smaller purposively selected focal group within that set for interviews. All academy teachers teaching at least one academy class were given an opportunity to participate in the survey. However, interview participants were purposively sampled. Purposeful sampling allows for selection based on the participants' characteristics for a particular purpose (Leedy & Ormrod, 2010; Richards & Morse, 2007).

Recruitment

After receiving IRB approval, the researcher introduced and briefly explained the study to academy teachers during career academy collaboration. The researcher then sought assistance from the associate principal in charge of the school's master schedule to acquire a list of all the academy teachers on campus. A recruitment flyer was placed in all academy teachers' mailboxes at the school site. (See Appendix H). As mentioned, all academy teachers were given the opportunity to participate. The recruitment flier instructed teachers who were interested in participating to contact the researcher via email within 5 days. The researcher then scheduled a date and time for a phone meeting to answer any questions for interested participants and to deliver the consent form for participation. Academy teachers were given two days to review and sign the consent form. Academy teachers were also provided with a self-addressed stamped envelope to be mailed to the researcher's residence. Upon collection of the consent forms, the researcher purposively invited eight academy

teachers (four from each academy) with three or more years of academy teaching experience to participate in an interview. After 5 days, academy teachers who had not replied to the flyer received a recruitment email for participation. (See Appendix I) The email explained the purpose of the study and informed teachers of the protocols, if they were interested in participating. Teachers who did not reply to the email did not take part in the research.

Teacher Participants

The entire sample of teacher participants consisted of 23 academy teachers (12 from EBA and 11 from MBA academy). As mentioned, all academy teachers were given the opportunity to participate in the survey, but only eight focal teachers were interviewed (four from each academy). The four teachers consisted of one academy coordinator and three academy teachers. The focal group was also purposively sampled based on years of experience in the academy. Each academy had approximately 12 teachers, but due to the high teacher turnover rate at the school site, most of them were either first- or second-year academy teachers. Focal teachers must have had at least three years of academy teaching experience. Pseudonyms were used to protect the identity of participating focal teachers. (See Table 4) Newer academy teachers were not selected to participate in the interview due to their lack of academy model experience.

Table 4

Description of Teacher Interview Participants

Teacher	Gender	Age	Years Teaching in Academy	Academy
Mr. Johnson	M	36	6	EBA
Mr. Smith	M	47	5	EBA

continued

Table 4

Teacher	Gender	Age	Years Teaching in Academy	Academy
Ms. Kim	F	40	3	EBA
Mr. Chow	M	49	3	EBA
Ms. Roxy	F	41	5	MBA
Mr. Freeman	M	36	4	MBA
Ms. Lauren	F	29	3	MBA
Ms. Ly	F	29	3	MBA

Methods of Data Collection

The data collection action plan was supported by four methods: (a) surveying academy teachers, (b) interviewing academy teachers, (c) conducting classroom observations, and (d) reviewing academy artifacts. The primary source of data involved surveys and interviews. Observations allowed for gathering field notes that captured how the academy’s theme was implemented in the curriculum and in teaching practices. Finally, meeting agendas provided historic and documented information outlining the direction of the academy.

Case study researchers should always verify and confirm their findings before proceeding to dissemination of data and recommendations. The use of multiple forms of data collection can validate the results based on findings from multiple sources. This practice is of triangulation (Hancock & Algozzine, 2006), is common in mixed-method designs due to the use of both qualitative and quantitative data to answer a single research question (Leedy &

Ormrod, 2010). Findings based on multiple forms of evidence—such as surveys, interviews, observations, and analysis of artifacts increase validity (Hancock & Algozzine, 2006).

Surveying Teacher Participants

All 23 teachers from both academies were surveyed. The survey began with a script describing its purpose. (See Appendix D) Teacher surveys fulfilled the quantitative component of the mixed-method design. (See Appendix E) The researcher used surveymonkey.com to survey all academy teachers. This online resource allows researchers to easily create and forward their survey tool to their desired sample group. Surveymonkey ensured the anonymity of the survey participants, as their responses are not be traceable. A survey link was emailed to the participant email addresses. Survey participants were instructed to complete the survey within seven days of receipt. All surveys were reviewed at the same time to eliminate possible linkage between participant and data.

The survey captured the academy teacher’s perceptions and experiences of the implementation and impact of the career academy model at Olympic High School. According to Butin (2010), “Every survey question should be deliberate and explicitly linked to answering your research questions” (p. 92). Accordingly, the survey helped accrue information by asking questions pertaining to small learning communities, the academy’s curriculum, and work-based learning opportunities; in essence, about the career academy model. The responses were summarized using percentages, frequency counts, and statistical indexes. The surveys consisted of 12 questions, 6 multiple choice, and 6 Likert-type questions. Surveys, by virtue of their discrete quantification, enable data collection to be extremely broad and take into consideration the opinions and perspective of many individuals

(Butin, 2010). As a result, inferences were drawn from the survey results and used for comparison.

Teacher Participant Interviews

Teacher interviews were conducted with eight academy teachers, four from each academy. Each interview participant was interviewed once. Interviews were held at a location of the participant's choice outside of regular school hours. All interviews were digitally recorded. The interview began with a script explaining the purpose of the interview. (See Appendix F). Interviews were semi-structured, recorded, transcribed, and converted into text format for coding and categorizing. The duration of the interviews was no more than one hour. The nine open-ended interview questions used to guide the conversations pertained to the academy model and sought to capture different perceptions of the career academy model. (See Appendix G)

Classroom Observations

For this study, observations revealed how the career academy model impacted career academy classes at Olympic High School. All eight focal academy teachers were observed twice. Observations lasted for the entire 57-minute period. The first observation took place sometime during the first 8 weeks of the study; the second observation occurred during the second 8 weeks of this study. No interaction took place between the researcher and students during the observation. Classroom observations were intended to examine how curriculum and instructional practices aligned to the academy's theme. Scheduling observations were arranged at least a week in advance with the teacher. Observing the setting of a case study may provide the research with more objective information related to the topic (Hancock &

Algozzine, 2006). Observations also helped the researcher understand the context of student behavior, social patterns of interaction, and routines of classroom dynamics.

Analysis of Artifacts

Artifacts collected for this study consisted of the curriculum designed for the career academy and monthly meeting agendas. One of the three core components of a career academy model is a theme-based curriculum. Such curriculum should equip students with the necessary means to attend college, or to enter the workforce with entry-level skills (Stern et al., 2010). Therefore, the academies' curricula were analyzed to compare how much of or how often their themes were implemented in teaching practices.

Monthly career academy meeting agendas were collected and analyzed to understand how academy teachers utilized collaboration time. Examining artifacts, including documents, is one of the more common methods of qualitative research (Stake, 2010). Both academies in this study met monthly to discuss academy issues and upcoming activities. Agendas used to guide the meetings were collected and analyzed to identify alignment with the three career academy components: (a) small learning community, (b) themed-based curriculum, and (c) work-based learning. Hancock and Algozzine (2006) have stated that case studies research is studied in its natural context, bounded by space and time. Therefore, the extant data examined ranged from the beginning of the 2009 school year, concluding in August of 2012.

Instrumentation

The instrumentation used for this qualitative case study consisted of a survey, interview protocol, a field note template, and an instrument for reviewing artifacts. All academy teachers were surveyed, but only selected academy teachers were interviewed. The survey consisted of 12 questions. Of the 12, 6 were multiple choice and the other 6 were

Likert scale–type questions. (See Appendix E) The survey questions gathered information regarding the participants’ background and their personal experience with the career academy model and how it shaped their teaching practices. The teacher interviews consisted of nine open-ended and semi-structured questions. (See Appendix G)

The designs of both the survey and interview questions were developed from a thorough review of the literature associated with the career academy model. Furthermore, the questions used in both instruments relied heavily on a study conducted by Dr. Marisa Saunders, senior associate researcher at UCLA’s Institute for Democracy, Education, and Access (IDEA). IDEA is a research center that strives to provide high-quality, equitable public schooling in urban schools across throughout Los Angeles and the nation. For the purpose of this study, Dr. Saunders granted the researcher permission to use her instrument to guide this research.

Data Analysis

Data analysis provided a detailed description of the case and its environment. The process of collecting and analyzing data took several months, and the results slowly shaped a narrative over time (Creswell, 2009). The principal researcher collected, analyzed, and stored all the data. No additional research team was used to analyze data.

For purposes of this study, topic coding was utilized. Coding enables the researcher to simplify and concentrate on particular specifics of the data (Richards & Morse, 2007). Topic coding seeks to highlight the information on a topic for future reference. This process separates the data and assigns the information to a category. The goal is to allow the researcher to locate material according to the label (Richards & Morse, 2007). The topic code categories used to examine the data for this study were *small learning communities*,

curriculum, work-based learning, and higher education. According to Richards (2009), “Topic coding may be a first step to more interpretive work” (p. 101). Through the topic coding process, the data was dissected and studied for similarities and differences.

Survey

The survey gauged the different perceptions of a large population of academy teachers. This instrument gathered information about the participant characteristics, opinions, and attitudes pertaining to his or her career academy experience. Leedy and Ormrod (2010) have explained how “survey research involves acquiring information about one or more groups of people by asking them questions and tabulating their answers” (p. 187). Inferences were drawn from the teachers from both academies and used for comparison. For example, depending on the outcome of the survey, participants from the EBA may have had a different belief about how the academy model influenced teaching and learning compared than teachers from the MBA. Muijs (2004) has asserted, “The quality of the data will depend on the quality of the instrument” (p. 41). The alignment of the survey with the research questions provided the research with more precision. (See Appendix E).

Interviews

All interviews conducted for this research were recorded and transcribed. Transcription allows the researcher to identify seminal information from digitally recorded interviews, to efficiently access desired pieces of information, and to slow down the recorded interview to transcribe it more easily (Leedy & Ormrod, 2010). Transcription was done using Dragon software. Dragon is a speech-recognition software designed by Nuance to help transcribe recorded conversations into text format. As the principal investigator, I listened to and transcribed the tapes as a secondary check and to fill in any gaps that the program may

have missed because the software works better as it begins to learn voices and voice characteristics and inflections. Also, to ensure trustworthiness, the researcher provided interview transcripts to participants for their review.

Transcriptions were coded and categorized by main ideas. Reoccurring themes were identified to help support the main ideas, or themes. This analysis aimed to provide the study with a deeper understanding of the teachers’ experience and of the impact of the career academy model. As such, questions targeted the three components of the academy model: small learning community, themed curriculum, and work-based learning. (See Appendix G). Additionally, teachers were asked about their experience with the academy and how the academy model was influencing their teaching practices. The goal was to identify themes and to determine the extent to which they were supported.

Observations

Classroom observations helped generate field notes for data analysis. The field notes were used as points of comparison to data accumulated from surveys and interviews. All observations were grounded in a predetermined protocol to record information and help identify key variables during classroom visits. (See Figure 5)

Subject:	Date of Observation:	Academy EBA or MBA
Observed Lesson:	Notes:	
Relevance to academy’s theme: yes or no	Notes:	
Descriptive Notes:		Reflective Notes:

Figure 5. Observation instrument.

Observations were conducted only with teachers who participated in interviews.

Observations provide the researcher unforeseen data sources as they arise (Leedy & Ormrod, 2010). As a result, classroom observations can capture potentially significant data that may be overlooked by surveys and interviews. For this study, observations documented the teaching practices of academy teachers and compared their teaching to their perceptions of their teaching practices as described during interviews. More specifically, during the observations, the researcher focused on how the teachers integrated the themes of the academy into their lessons.

Artifacts

Analysis of the academy's curriculum provided this research with information on what should be taught in comparison to what was being taught. The comparison was conducted through teacher interviews and classroom observations where field-notes were created. In addition, agendas from monthly meetings were collected and analyzed to support this study. Richards and Morse (2007) have asserted "data often consist of documents that exist independent of the research process" (p. 117). All agendas were collected from the academy coordinators after each monthly meeting. Agenda items were coded and categorized in order to make sense of how this form of data aligned to the context of this research. The study of meeting agendas sought to support all four of the research questions by investigating what the academies were doing during the collaboration to implement the career academy model. The criteria to analyze the meeting agendas were predefined, and addressed the following four categories: (a) small learning community, (b) themed curriculum, (c) work-based learning, and (d) college awareness. (See Figure 6)

Name of Academy:		Date of Meeting:	
Small Learning Community	Themed Curriculum	Work-Based Learning	College Awareness
Notes:	Notes:	Notes:	Notes:

Figure 6. Document analysis instrument.

Trustworthiness

Researchers must establish trustworthiness by ensuring that the collection of data was done so without research bias and influence (Yin, 2011). It is also worth noting that there are a number of strategies that researchers might find useful as ways of demonstrating the trustworthiness of the data (Holloway, 2005). It is important that the voices of the participants are clearly heard and carefully articulated within the research (Holloway, 2005). All interviews were transcribed word-for-word by the researcher. After the transcriptions were completed, interview participants were asked to verify the accuracy of the transcribed data.

Data Management

Researchers must manage collected data efficiently. Setbacks can be minimized through thoughtful planning prior to starting data collection process (Richards & Morse, 2007). For this particular research, the data management process consisted of two steps. The first step was to focus on systemizing the collection process. The second step was developing

a plan for storing the collected data. Richards and Morse (2007) have stated that with an enormous volume of data that needs to be managed, advance preparation can preserve the researcher from overloading or data wastage. In a well-designed study, data is not over collected, but rather well managed (Richards & Morse, 2007).

Data management began with preplanning to develop a process to organize the collected data. Any data that required physical handling, such as digitally recorded interviews, were clearly labeled and stored in a secured area located off campus. Pseudonyms and codes were used to help the teacher participants and institution remain confidential. Such identifying codes were placed on all tapes and in the headers of all transcription. The primary goal of this step was to provide the researcher a systematic way to categorize, sort, and retrieve all the data in a timely and efficient manner.

Collected data was kept in a well-organized, secured, physical space for storage. All audio and video recordings were kept in a locked cabinet, stored away from extreme temperature, static electricity, and magnetic fields. All hard data was converted to electronic formats using word processors and scanners to retain soft backup. Computers provide a great deal of assistance in the physical management of records (Richards & Morse, 2007). Any computer-generated documents or data were stored in a password-protected computer and all files were backed up by an external hard drive. Only the researcher had access to the password.

Protection of Human Subjects

This study adhered to all mandated protocol to protect human subjects, state and federal rules were met, and university guidelines were followed. This study received approval from the Institution of Review Board of Pepperdine University while adhering to

and obtaining permission from the site's district office. In addition, the researcher sought approval from academy coordinators, the site principal, and the district's assistant superintendent of educational services to gather data for this study. Further, this research was conducted under the direct supervision of Pepperdine University's Graduate School of Education and Psychology.

All teacher participants signed consent forms prior to participation. (See Appendix A) Consent forms were distributed to all academy teachers and collected before the start of this study and disclosed the following information:

- Nature of the study
- Description of what participation will involve, in terms of activities and duration
- A statement indicating that participation is voluntary
- The guarantee that all responses will remain confidential and anonymous
- Researcher's contact information
- An individual or office that participants can contact, should they have questions or concerns about the study
- A place for the for the participant to sign and date the form, indicating agreement to participate

All academy teachers were given the opportunity to participate in this study. Participants could withdraw at any time without negative consequences of any kind. The consent form disclosed all foreseeable risks in this study, although the participants faced no more than minimal risk—for example, emotional discomfort. If participants felt emotionally discomforted, they were provided a break before questions resume; however, participation or nonparticipation would not have affected their job status, or any personal consideration, or

right that they normally expect. Participants could also refuse to answer any question that they did not want to answer and still remain in the study. Further, participants were made aware that there was no compensation for their participation.

The researcher provided the participants with the study findings upon request. Requests could be made by contacting the researcher by phone, email, or in person. Upon request, the researcher emailed the findings to the participants and offered to discuss the specifics of the findings.

The identity of all participants and of the site were unidentified through the use of pseudonyms. Moreover, to maintain full confidentiality, the subjects taught by the teacher participants were not disclosed

Timeline for the Study

This study took place beginning March 1st, 2012, and concluded on August 30th, 2012. During this time, surveying of academy teachers, interviews with academy teachers, and classroom observations along with analysis of artifacts took place.

Bias Disclosure

The topic on career academies had captured my interest for several years prior to starting this research; however, as a former academy student and lead teacher, my greatest struggle was conducting this research with minimal bias considering my past and existing ties with the academy. According to Leedy and Ormrod (2010), “Research is a systematic process of collecting, analyzing, and interpreting information (data) in order to increase our understanding of a phenomenon about what we are interested or concerned” (p. 2). The approach to minimize any subjective conclusions when collecting, analyzing, and interpreting data will be determined from a series of step outlined for this research. Bias can

sneak into a research project and distort the data in subtle ways (Leedy & Ormrod, 2010).

For that reason, the dissertation chair and committee members assisted me with keeping any bias to a minimum. Collected data was studied and analyzed with the highest standard of research ethics.

Positionality

My history with Olympic High School dates back to the early 1990s. As an alumnus, I had witnessed and experienced first-hand many of the school's challenges. From riots and lockdowns on students to protesting due to political differences as a teacher, my educational and professional experience was outlined by a series of events with Olympic High.

My relationship with Olympic High School extended beyond this study on career academies. As a student, I was a member of the one the academies studied in this research. My social development benefitted from my academy experience. Today, many friends whom I still keep in daily contact with were once classmates of the same cohort. Interestingly, my classmates decided to pursue careers that were not remotely close to the academy's theme. At the time of the research, as I compared my personal experience to those of students enrolled in the same academy, I recognized that not much has changed. Hence, current graduates still showed a low level of interest in pursuing a career related to the theme of the academy. This outcome captured my interest in studying how academies implement the career academy model.

Prior to conducting this study, I had served as a lead teacher managing data and curriculum for the Environmental Careers Academy at Olympic High School. This position gave me the opportunity to work with student data, which provided me with a snapshot of how the academy was performing academically. When working with academy benchmark

and standardized test scores, and comparing them to the rest of the school, I noted that the academy was not performing at a much higher level.

I believed students enrolled in career academies and teachers teaching academy classes were provided resources that were not available to students and teachers who were not a part of academies. Resources such as partnerships with businesses for work-based learning, integrated interdisciplinary curriculum, fieldtrips, smaller class sizes, and cohort models by grade level meant to promote camaraderie among students for additional peer support. In return, career academies should produce higher academic achievement compared to the rest of the school. This differential remained to be seen, and the research challenged whether career academies were, in fact, benefitting students.

This research was important to me because the conclusions drawn from this study could help reshape the infrastructure of the academies and, as a result, increase student academic achievement. Although there had been recent improvement with standardized test scores, Olympic High School is still considered a persistently low-performing school. Both academies are equipped with talented teachers and have the potential to help academy students maximize their learning opportunities. However, my concern was whether these academies were academies in name only.

Summary

This qualitative case study used four forms of data collection to examine how the career academy model was being implemented at Olympic High School: (a) surveying academy teachers, (b) interviewing academy teachers, (c) observations, and (d) gathering and analyzing meeting agendas used during collaboration.

The surveys captured a variety of insights from multiple academy teachers. The

interviews provided an in-depth study of the teachers' perceptions of their academy experience while providing a richer understanding of the survey's outcome. Observations provided the study with data on how academy students and teachers act and interact within the case study setting. Analyzing the meeting's agenda further validated the outcomes of the surveys and interviews by providing an understanding of how collaboration time is spent among academy teachers.

Chapter Four: Analysis of Data and Findings

Overview

The purpose of this qualitative case study was to examine the implementation and impact of the career academy model within a comprehensive urban high school. More specifically, this study examined how two career academies implemented the three components of the academy model- (a) a small learning community, (b) a theme-based curriculum, and (c) business partnerships. Multiple forms of data consisting of surveys, interviews, observations, and artifacts were analyzed.

Three research questions guided the study. The three research questions are as follows:

- How does a small learning community influence classroom culture in career academy classes?
- How are academy teachers implementing theme-based curriculum in career academy classes?
- How does access to business partnerships and resources impact career academy classes?

Findings

This chapter highlights the findings from the coding and thematic analysis utilized to explore the three core components of the career academy model for teaching and learning. Key themes emerged through the analysis of the corresponding data for each academy model component and the research questions.

This chapter is divided into three sections. Each section will address one of the three components of the career academy model. Section One will focus on how the two academies

at Olympic High School implemented the SLC component of the career academy model and its influence on teaching practices. Section Two will explain how academy teachers integrated theme-based curriculum in their academy classes. Section Three will outline the existing business partnerships and resources and how they impacted both career academies. Human Capital Theory will also be examined through the lens of the gathered data in each of the three sections.

Research Question One: How Does a Small Learning Community Influence Teaching Practices in Career Academy Classes?

Small learning communities positively impact classroom environment, and the teaching experience in career academy classes. At Olympic High School small learning communities helped academy teachers to develop strong relationships with their academy students. Additionally, academy students built strong relationships with their peers because they had the opportunity to take multiple classes with the same students throughout their academy experience. Academy teachers at Olympic High School acknowledged that out of the three components of the career academy model, the SLC component had the most impact on their classroom; however, both academies still needed to overcome many obstacles.

Similarly, this study identified multiple areas to strengthen the impact of SLCs within career academy classes. For example, both academies experienced difficulties with classes that have academy and non-academy students. While observation data did indicate that small learning communities created a more collaborative culture, no measureable artifacts validated the idea that higher student achievement was directly associated with small learning communities. However, the data reinforced existing literature that supports the correlation between collaboration and student achievement (Dufour et al., 2008; Oxley, 2001).

Olympic High School teachers from both academies agreed that out of the three components of the academy model, the SLC component had the most influence on student learning. Three key themes emerged from the data; they were: (a) small learning communities have a positive impact on building relationships, (b) scheduling causes logistical issues for academies, and (c) a small learning community has the most impact on student achievement. However, participants from both academies identified common barriers and gaps that hindered the efficacy of the small learning community.

Small Learning Communities Have a Positive Impact on Building Relationships

A small learning community affords opportunities to build relationships between teachers and students. According to the research literature, small learning communities facilitate meaningful teacher-student interactions, a sense of belonging and attachment, more individualized instructions, and more opportunities for teachers and students to exercise autonomy (Oxley, 2005).

Twenty-three academy teachers were surveyed about comparing the class sizes of their academy classes and their non-academy classes. Teachers reported that, in fact, academy classes were no smaller than the size of non-academy classes (See Figure 7). Contractually, the student to teacher ratio for nonacademy classes was 35 to 1. At the time of this study, academy classes had an average enrollment of 28 students.

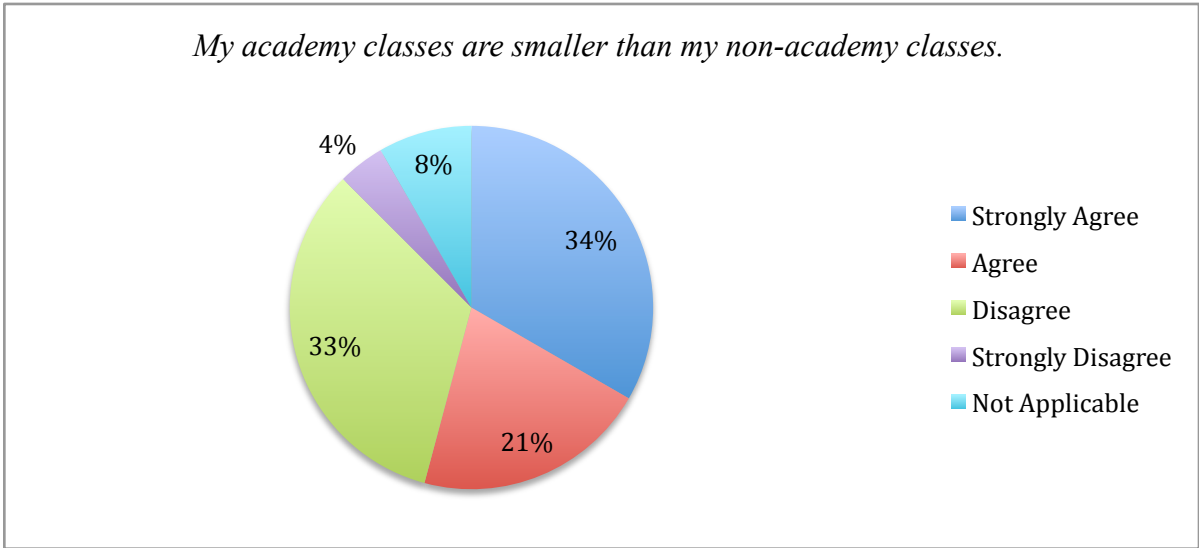


Figure 7. Class size comparison of teachers teaching both academy and nonacademy classes.

In addition, 79% of all academy teachers strongly agreed that they were more effective in their academy classes with fewer students. (See Figure 8).

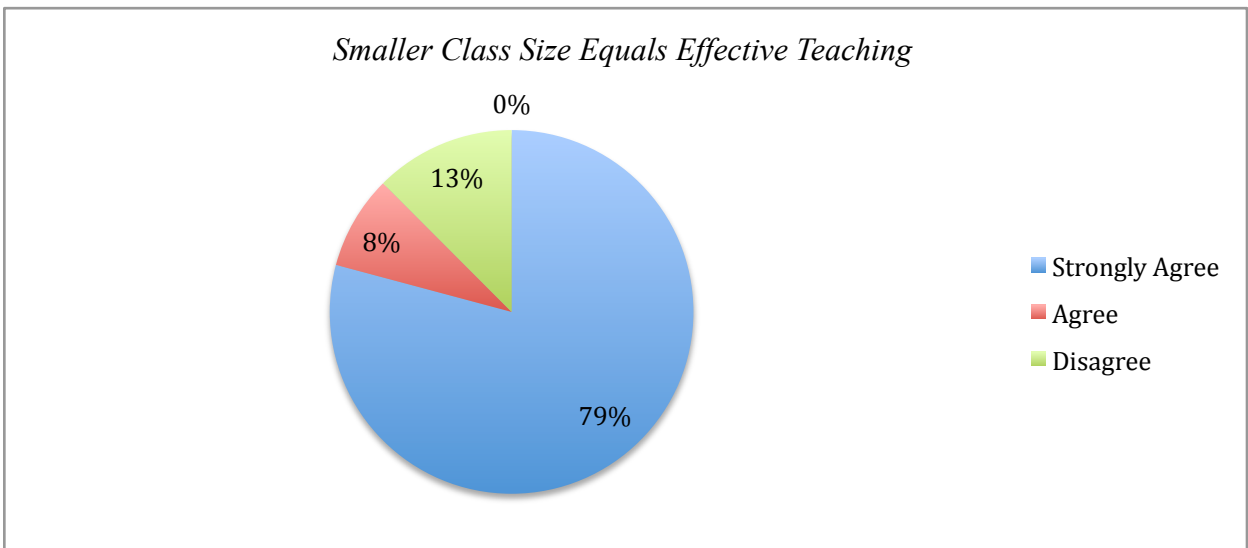


Figure 8. Teachers’ perceptions of how smaller class sizes influence teaching practices.

Interview participants shared that a smaller learning community helped them connect with students more. This is important as it helps teachers establish a rapport that leads to trust and a positive learning environment.

The observations conducted for this study validated that students in smaller learning communities had a positive rapport with their academy teachers. For example, like Ms. Roxy, who shared, “150,000% more camaraderie in academy classes. It makes it much more difficult because they’re much more talkative classes, but they’re incredibly supportive of each other. The comfort level is phenomenal.” Similarly, Mr. Chow reported:

There’s more camaraderie between the academy students because of the small class size. Students know each other a lot more, and they’re comfortable asking each other for help, versus the traditional where the students don’t really know each other and they don’t get together in small study groups and they don’t get together in small study groups after school or at lunch.

Academy teachers were in agreement about how a small learning community helped develop and foster relationships. These relationships increased comfort levels, which resulted in more productivity in the classroom. This finding is supported by literature that associates student achievement with the type of relationships they have with their teachers (Marzano, 2003).

On this subject, Mr. Freeman added:

It gives students more focus on their future. It puts them on track and gives them an idea of what they might want to do, if they don’t have an idea already. The work is more direct and focused, the peers that they may have in their class will provide them with more support because everybody is on the same page heading towards the same direction.

Ms. Roxy also shared, “I think high school is a very difficult time where students often feel anonymous, especially in a comprehensive high school the size of ours. I think academies provide far more intimate support and very comfortable learning environment.” In this

instance, Mr. Freeman and Ms. Roxy agreed that small learning communities positively impacted the educational experiences of academy students. More specifically, SLCs were making learning more personalized through levels of support that had a common vision.

Better relationships with students. A few teachers reported that the smaller class size helped them develop a better relationship with their students. Mr. Chow shared that “More time can be given to students during class time, so I can help more students. I can also focus more on what students are lacking, even with discipline issues.”

A series of observations was conducted to further validate this finding. According to Butin (2006), “The most important factor is for the researcher to identify what must be observed in order to shed light on possible answers to the research questions” (p. 46). For that reason, the researcher attempted to seek evidence of support and camaraderie in academy classes.

Eight out of eight academy classes that were observed indicated high levels of camaraderie between students and teachers. Students were permitted to leave their seats without seeking permission when working with other students in the class. In the MBA 11th-grade English class, students requested to do peer review with other academy students. In the EBA geometry class, the students were well behaved, and worked within their assigned groups to help each other.

Academy artifacts consisting of meeting agendas and curriculum were studied to gain further understanding of the emerging theme of building relationships. In case studies, researchers often review existing documents to gather information related to the research question (Butin, 2006). Following suit, the researcher studied academy artifacts to make

sense of what the two academies were doing to promote a culture that helped build relationships among all stakeholders.

According to the artifacts that were analyzed, a series of events helped academy students and teachers build strong relationships. The EBA frequently visited topics such as fieldtrips, retreats, mentorship, and school events to develop camaraderie within the academy. Likewise, the MBA focused on topics such as understanding the academy model, team-building activities, fieldtrips, and student concerns. Both academies attempted to help students and teachers develop a positive rapport in various capacities.

Building a Master Schedule with Academy Classes is Challenging

Building a master schedule for an entire school is no easy task. This responsibility is arguably the most challenging job for any school administrator (Kussin, 2007). The level of complexity can fluctuate depending on the programs being offered at the school. At Olympic High School, the administrator building the master schedule had to accommodate both academies by trying to not enroll non-academy students into academy classes.

Scheduling issues formed a common theme in the interviews. Seven out of the eight interview participants made at least one reference to scheduling issues during his/her interview. Some academy teachers were more frustrated with this issue than others. Mr. Johnson from the EBA was clearly one of the more frustrated ones. He expressed that teacher selection and student selection was an ongoing issue that was impossible to prevent:

There are a certain number of teachers, and a certain number of students, and if a counselor sees a class that has less than 36, then that's the one it is going into. At the conference, they're telling us to recruit recruit recruit and fill your classes with academy students, and I do. I recruit well and we'll end up with 1 section of English,

or 2 sections of English, but at some point, we're never going to have that perfect number.

Every year, academy coordinators at Olympic High School attend a regional conference in San Jose, California. At the conference, academy coordinators are able to receive the most up to date information on career academies and network with other coordinators from other schools. Mr. Freeman added, "Student placements can be improved; I think perhaps a better pre- screening mechanism that's in place to better gauge the interest of the students instead of just placing them in classes." This concern shared by Mr. Freeman was a result of mixing nonacademy students in academy classes.

Scheduling and recruitment is a daunting task. When asked to identify any SLC barriers, Ms. Roxy shared: "The only limitation that all academy teachers would say is that we do not have pure academy classes, and if you could really have pure classes, it would actually be an academy." In this instance, Ms. Roxy shared that academy classes consisted of both academy and nonacademy students, and that only academy students should be enrolled in academy classes. However, this was no simple task for counselors.

Academy classes that consisted of academy and nonacademy students was a direct result of scheduling issues. When nonacademy classes were full, counselors had no other option but to place nonacademy students in academy classes. Scheduling was a daunting task for counselors when schedules were being changed or when a new student checked in.

Also, the recruitment process for both academies appeared to be in need of improvement. At the time of this study, academy students were either recruited through word of mouth or during a second semester lunch rally. The recruitment process in place lacked a systematic approach to recruiting academy students.

Of the eight academy classes observed, seven consisted of academy and nonacademy students. The only academy class with all academy students was the 11th-grade MBA English class. The other seven academy classes were a mixture of academy and nonacademy students. Of the seven teachers with mixed students, three had a mixture rate as high as 50% academy and 50% nonacademy students. (See Table 5) However, despite the mixture, all students were well behaved and displayed a high level of mutual support throughout the observation.

Table 5

Breakdown of Academy Classes Consisting of Academy and Nonacademy Students

Teacher	Subject	% of Nonacademy		
		Students in Section 1	Students in Section 2	Students in Section 3
Mr. Chow	Geometry	51	23	
Ms. Ly	Geometry	50	12	
Ms. Kim	Chemistry	30	10	
Mr. Johnson	ELA	27	15	21
Mr. Smith	ELA	22	10	
Mr. Freeman	ELA	21	50	
Ms. Lauren	Elective	17	17	
Ms. Roxy	ELA	0	0	

None of the artifacts used for this study specifically addressed scheduling issues; however, a few meeting agendas did reference *problems/concerns* as a topic for discussion. In addition, one agenda item focused on recruiting students. Nonetheless, no other indicators

based on the gathered artifacts addressed the issue of scheduling—or that it would be addressed in the near future.

Small Learning Community Creates a Conducive Learning Environment

According to researchers, all three components of the career academy model are equally important while contributing to the model in different capacities (Maxwell & Rubin, 2000; Stern et al., 1992). However, based on the data gathered in this study, teachers believed that smaller learning communities have the greatest impact on student achievement.

Surveys indicated that 20 of 23 teachers believe that smaller learning communities had the most impact on their students. Of the 23 surveyed, 20 selected smaller learning community, 1 selected theme-based curriculum, 1 selected business partnerships, and 1 selected *all three impact students equally*. (See Figure 9)

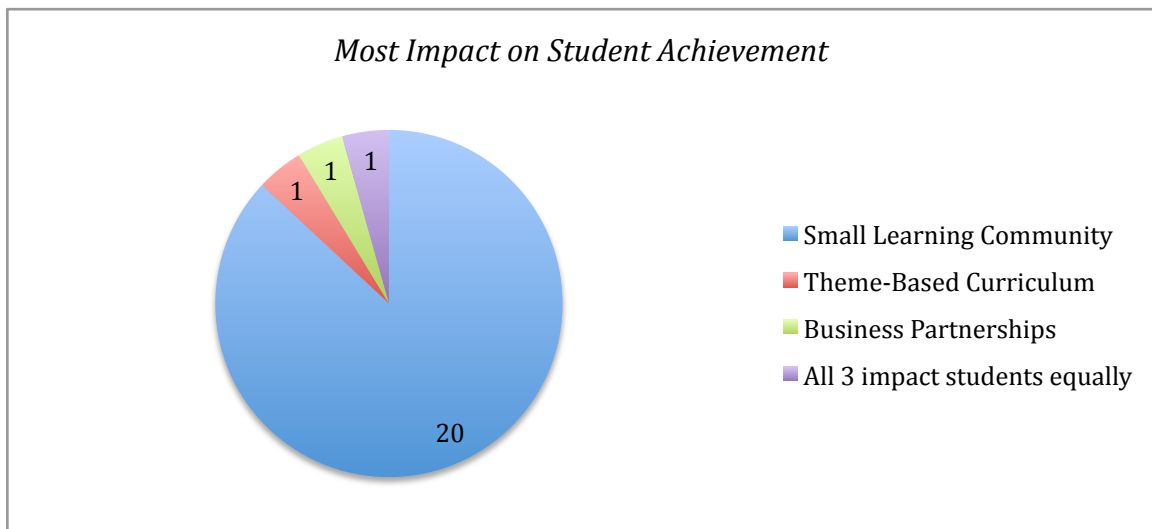


Figure 9. Teacher perceptions of how the career academy model impacts student achievement.

All 8 focal participants agreed that the small learning community aspect of the career academy model had the most impact on student achievement. Mr. Freeman explained:

I think small learning community just because they, for the most part, they establish a sense of identity. In a climate where no one has an identity, it just kind of gives students something to belong to and be a part of.

Mr. Johnson added:

I've always believed that it's that sense of belonging to a group that separates our students. It's because of being in that group gives you opportunities for the extra curricular activities, which are like Earth Day, the BBQ, the small field trips that we go on, as well as . . . what happens on those trips is that these kids come back and immediately, you have that rapport, so you're able to do things in your classroom that you can't do with your other classes, it's because you have that rapport.

Academy teachers unanimously agreed that small learning communities created a learning environment was conducive to student learning; however, based on preliminary analysis of the data, no measurable work proved that student learning was directly impacted by SLCs. Nonetheless, observation data indicated that small learning communities created a more collaborative culture. Collaboration translates into providing teachers opportunities to use each other as resources to establish informal systems for interventions to address the needs of the students and the community (Lindsey et al., 2009). On this subject, Ms. Ly shared:

In a small learning community, you have more interaction with the teacher. I think that's probably the biggest thing, and then you have just more interaction with each other, it's a lot easier to give them a task, and then monitor it as a teacher, because you can reach all the students.

The message was consistent across the board. All interview participants shared that a small learning community had the most impact on student achievement. Mr. Smith, Ms. Kim, and Mr. Chow also added that students in small learning communities are given more attention.

Meeting agendas indicated efforts by both academies to monitor student achievement. Both the EBA and MBA spent time discussing topics related to student monitoring, advisory/mentoring, leadership roles, intervention, and tutoring. These initiatives and efforts all contributed to student achievement on different levels.

Overall, the data related to the SLC component of the career academy model aligned to the literature. Oakes and Saunders (2008) referenced how SLCs can use size to their advantage by personalizing learning environments to support student success. In correspondence, Mr. Johnson shared that academy teachers were able to give academy students more personalized instruction and to build better relationships in academy classes. Likewise, the literature has shown that collaboration is critical for small learning communities (Dufour et al., 2008; Oxley, 2001). In these schools, regular departmental collaboration happened twice a month during regular work hours, but academy collaboration during the school day was nonexistent. Academy teachers were thus forced to meet either during lunch or after school. This situation was a source of concern for Mr. Smith, who felt that more true collaboration, in which teachers were able to sit together, was beneficial. He explained, “We just need more time to collaborate.” Another alignment between the data and the literature was teacher selection. Selecting academy teachers must be done meticulously (Stern et al., 1992), a necessity confirmed by a few academy teachers.

Aligning SLC to Human Capital Theory

The gathered SLC data to conduct this research was associated with Human Capital

Theory. Coleman (1988) has asserted that human capital is manifested by the transformation of an individual who procures newly acquired skills and capabilities that liberate him or her to act in new ways. This assertion was validated by recurring themes that acquiring skill-sets enabled students to transition into the workforce with enhanced foundations. The data indicated that small learning communities helped academy students develop stronger relationships with their peers and teachers. Stronger relationships equate to a more personalized learning environment that supports student success (Oakes & Saunders, 2008).

Research Question Two: How are Academy Teachers Implementing Theme-Based Curriculum in Career Academy Classes?

Based on the findings, academy teachers implemented minimal theme-based curriculum in career academy classes. This portion of the research identified some deficiencies that needed redressing. During the interviews, academy teachers disclosed that minimal theme-based curriculum was integrated in their classrooms. Classroom observations validated their disclosures, as teachers taught their academy classes exactly the same way as they taught their nonacademy classes. According to the data, the lack of theme-based curriculum was due to the lack of guidance and training. Teachers acknowledged that this area of the academy model was opposite to what was articulated in the literature on theme-based curriculum (Oakes & Saunders, 2008), but that training and ongoing professional development must be provided to address this issue. The theme-based curriculum component of the academy model appeared to be the most ineffective component of both career academies at Olympic High School.

Lack of Teacher Support

Participating teachers from both academies expressed frustration about the lack of guidance. The message that emerged from the theme-based curriculum component of the academy model corresponded to the lack of teacher support. More specifically, three variables from the gathered data validated how academy teachers were not well supported. The three variables were (a) lack of professional development, (b) lack of collaboration, and (c) lack of interdisciplinary curriculum training.

Lack of Professional Development

Professional development helps teachers explore various teaching practices and take ownership of their profession. This resource provides opportunities for professional learning, from basic knowledge and skills to new approaches to curriculum and instruction, including tools for inquiring into student learning (Joyce & Calhoun, 2010). The importance of professional development is beyond measure, especially for academy teachers seeking to employ teaching practices that maximize the academy experience for students.

Due to the lack of professional development, teachers failed to implement theme-based curriculum on a regular basis in their academy classes; however, this discrepancy was also a result of the district's decrease in funding. In the survey, of the 23 academy teachers who were asked about the frequency of alignment between their curriculum and the academy's theme, four teachers acknowledged that they never aligned their curriculum. Three teachers managed alignment everyday, whereas nine teachers aligned their curriculum once a month. One teacher had alignment three to four times a week, whereas six teachers aligned their curriculum one to two times a week. (See Figure 10)

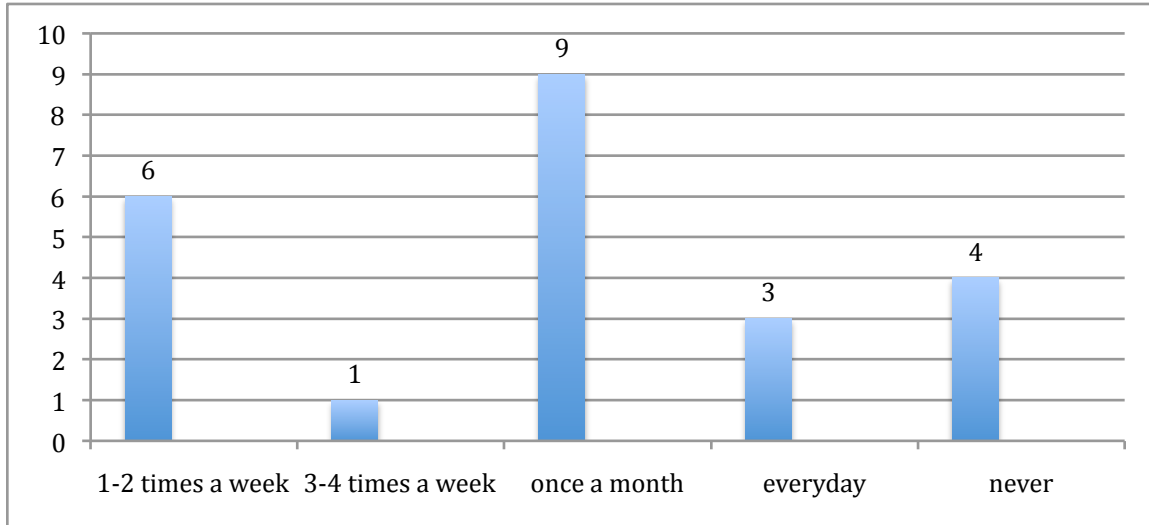


Figure 10. Frequency of alignment between curriculum and academy’s theme.

Thus, the observation data was in direct opposition to the survey data on theme-based instruction practices. Out of the eight teachers who were observed, only one showed alignment between the curriculum and the academy’s theme. More specifically, this one class—photography—was part of an academy that focused on media arts. However, the photography class was considered a technical class for the academy, so it was not surprising that the curriculum was well aligned to the academy’s theme. The photography teacher also shared, “All my practices are aligned to the theme, because my class is the elective class, and that’s all it is.”

The researcher conducted a series of interviews to understand how academy teachers valued professional development, or the lack thereof. Classroom observations confirmed the importance of training for academy teachers, as the lack of professional development was blatant. When asked to discuss the state of professional development, Ms. Kim shared the need for more training, explaining, “We need to be exposed to academy lessons, and even observe other schools.” Mr. Freeman added:

I think something we can do is monitor or have someone model teaching from another school who has a similar academy. It's always good to see an example of what you're trying to do. Just even for validation purposes, a lot of time, we might just be running a program with no point of reference, it's hard to validate. I think just observing either just a teacher or a full-on program will be beneficial for us to continue to develop in progress.

Ms. Ly also added that teachers should be given a guideline on what should be taught in academy classes. A guideline will help teachers align the curriculum or daily objectives. According to Ms. Ly, "The only barrier is that I'm not given a guide on what exactly they want me to teach."

The lack of guidance resulted in teachers teaching both their academy and nonacademy classes similarly, using identical curriculums, activities, and instructional practices. Ms. Roxy mentioned, "There's no set curriculum, other than our technical classes. There's no set academy curriculum for core classes." Ms. Kim also shared, "I've been told to just teach my academy class the same way I teach my nonacademy class so therefore, there's no alignment to my academy's theme." Clearly academy teachers needed training and ongoing professional development.

The artifacts consulted for this study did not offer any evidence of professional development for academy teachers. None of the meeting agendas mentioned anything pertaining to training or professional development. Based on the interviews, observations, and surveys, professional development was clearly a much-needed resource for all academy teachers.

Lack of Collaboration

Collaboration is an important support element to the career academy model. According to Dufour (2008), “Collaboration is a systematic process in which teachers work together, interdependently, to analyze and impact professional practice in order to improve results for their students, their team, and their school” (p. 16). Collaboration allows teachers to share best practices and to discuss pressing topics related to the academy. During interviews, all eight teachers were asked if they felt that their academy was collaborating enough. Three teachers said yes, that there was enough collaboration going on; five teachers shared that there needed to be more collaboration. (See Figure 11)

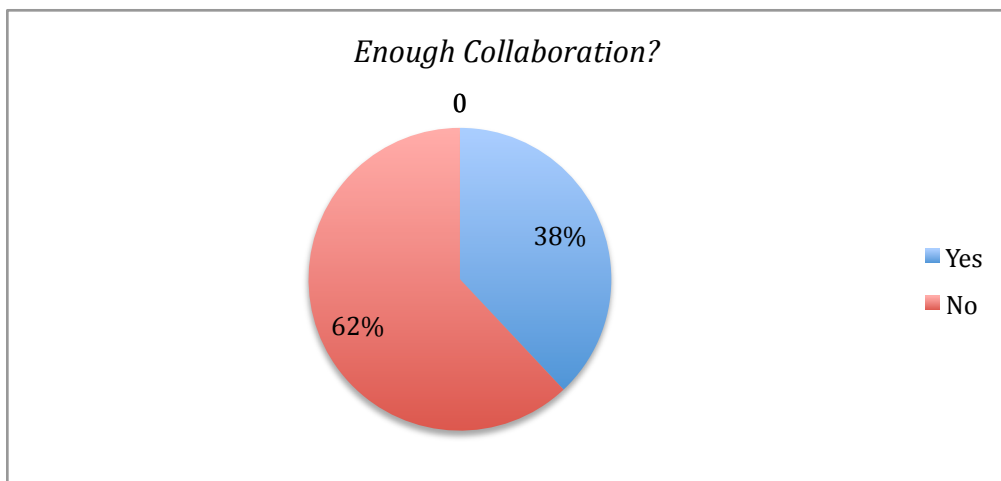


Figure 11. Teacher perceptions of collaboration.

Academy teachers were interviewed so that the researcher could gain further understanding of the importance of collaboration for academies—and how this practice could improve instructional practices. Although departments were collaborating biweekly, academies were not. Clearly, academy teachers were not collaborating enough. The lack of collaboration meant that academy teachers were not optimizing their full potential. When asked to share

his thoughts on collaboration, Mr. Freeman mentioned that there had been good collaboration, but not enough. Mr. Smith added:

We just need time to collaborate. That's the main thing with academies. You have to talk a lot with each other, and then we need central projects to work on and we can all use our specialties to contribute to it. More true collaboration where we're allowed to sit together, and we can get things done, as opposed to somebody coming with your agenda for the day. If you can stay on our own agenda, we can get a lot done.

Ms. Lauren detailed:

There have been a variety of focuses in different meetings. For example, we were mostly talking about grades, and if the students are falling behind, and keeping on top of the students by grade level. Sometimes we talk about, okay, if you're doing this project in English, what can we do in video that's going to fit in with what you're doing in that class, and trying to work out the timing of assignments. That I think is kind of fun.

Although teachers evidently felt there should be more collaboration, academy teachers were effectively collaborating when they had the opportunity to do so. For example, Mr. Chow explained that during collaboration, teachers shared information about what they were currently working on, discussed upcoming events and fieldtrips, and updated each other on student progress.

Lack of Interdisciplinary Curriculum Training

The academies' cross-curricular project involved interdisciplinary curriculum. Every year, 10th-, 11th- and 12th-grade academy students were required to complete a cross-curricular project that integrated knowledge across academy curricula. According to Stern et

al. (1992), “A career academy curriculum combines academic and technical content. Both are essential, and the two are integrated, showing the relationship between academic skills and real world jobs” (p. 17). The cross-curricular projects required a lot of initial planning and collaborating among academy teachers.

Changes in academy leadership negatively impacted how one of the academies had implemented its cross-curricular project. The eight interviews made evident that a recent change in one of the academy leadership positions affected how the academies implemented its cross-curricular project. Mr. Smith shared, “We’re working on it. We don’t have one, but there will be with the design class.” Mr. Johnson added:

I’ll be honest with you, we try to do the cross-curricular project, but that’s one area where we have let the ball drop. Each retreat that we have, that’s the lowest level of importance, because quite frankly, we are working very hard to get these courses up and running, and the support that’s needed to get our new courses delivered is taking all of our time together.

Based on the interview data provided by EBA teachers, the curriculum component was clearly missing. According to researchers, curriculum is a key element separating a career academy from a traditional high school (Maxwell & Rubin, 2000; Stern et al., 1992); however, teachers must also be provided adequate training to implement such curriculum with fidelity. Academy teachers should be guided through the use of career strands as a blueprint for curriculum development and capturing student engagement (Smith, 2008). On this subject, Ms. Kim said:

Honestly, it has always been on our agenda each retreat, but it has not been

developed. We will work on it, we will implement it next year, this year, we're just struggling with not having a career pathway this year.

The interview responses from MBA teachers were considerably different in being quite specific. Ms. Lauren shared:

We did one first semester with English that worked out pretty well. In English, they were doing Edgar Allen Poe, and in video class, they had to interpret one of their stories into a video, and in photo, they had to take one of his poem or stories and create a book cover.

Ms. Roxy added:

We do a couple, 10th grade, they have done one each semester. We do them by grade levels, the 10th graders do 2 different projects, 1 each semester, and 1 of them is a poetry video album, and the other is a newspaper article, and they integrate in 2 core subjects, English and social studies, and then our intro to multi-media, it's much easier because our 10th graders only have 1 elective. In 11th grade, the comic book that they do is integrated in with social studies, and photography and digital arts, and we integrated with film. We did Edgar Allen Poe horror gothic genre short film, with US History, English and film. But it's integrated, but not a truly integrated unit because there's not all mini assignments from each course, it's basically applying your knowledge from US History to the creation of this film project that you have to write up in English class.

Teachers from the MBA had a clear understanding of their cross-curricular projects; however, some teachers from the EBA did not know that a cross-curricular project even existed.

Evidence from the artifacts was well aligned to the data from the interviews. It appeared that the MBA was fully implementing the cross-curricular project, and that the EBA was still recovering from its recent change in leadership. The cross-curricular project was an item on multiple agendas for the EBA; however, the project had not been implemented due to unforeseen challenges encountered by leadership. Conversely, the MBA was fully implementing the cross-curricular project with the involvement of multiple teachers across different subject areas. The topic of interdisciplinary practices was often revisited during MBA meetings. MBA teachers were provided curriculum guidance, instructions, and resources on how to implement cross-curricular projects.

Overall, the theme-based curriculum data gathered aligned with the literature. Supovitz and Christman (2005) have referenced that teachers and leaders of small learning communities require ongoing professional development and a variety of collaborating methods that support personal and professional growth. This issue appeared to be problematic for several academy teachers. Mr. Johnson, Mr. Smith, Ms. Roxy, and Mr. Freeman expressed that the lack of professional development was an area of concern in need of immediate attention; however, no solution was imminent. Stern et al. (1992) articulated that a career academy curriculum should be a combination of academic and technical content. From interviews and observations, the researcher found that academy teachers demonstrated minimal to zero technical content throughout their lessons. Mr. Freeman revealed that the curriculum and instructional practices for both academy and nonacademy classes were identical—and that they were planned and developed in exactly the same way. Academies were guided through the use of career strands as a blueprint for curriculum development and capturing student engagement (Smith, 2008). Ms. Kim, said that she had been instructed by

administrators to teach academy and nonacademy classes the same way, and that no alignment to the academy's theme was necessary. In general, academy teachers felt that this component of the academy model required the most improvement.

Connecting Theme-Based Curriculum with Human Capital Theory

The gathered theme-based data to conduct this research linked to Human Capital Theory. Gaynor (1998) has expressed that the relationship between economics and education can be assessed through the lens of Human Capital Theory. One plan of action that supports this assertion is the school-to-work program. Grounded in the domain of Human Capital Theory, the school-to-work model fosters the notion that experience with higher education will contribute to higher earnings, because such pathways will help capture human capitalism by equipping individuals with the skills they need to explore their options (Gaynor, 1998; Maxwell & Rubin, 2000). Part of helping students acquire these skills is implementing a theme-based curriculum within their academy classes. This practice will help academy students align school-based learning to work-based learning. Although it communicated that minimal theme-based curriculum was being implemented in the classroom, the data also acknowledged the importance of this component and conveyed how this issue can be addressed.

Research Question Three: How Does Access to Business Partnership and Resources Impact Career Academy Classes?

Access to business partnerships and resources has the potential to positively impact career academy classes. More specifically, partnerships can provide students with internships, job shadowing, and opportunities to interact with guest speakers. Internships allow students to gain valuable experiences that can lead to future career opportunities. Job

shadowing can help academy students make connections between what they are learning in the classroom to a career of their interest. Guest speakers provide students the chance to interact with someone in the profession and to ask clarifying questions. However, collaboration between businesses and academies is also critical to maximizing the effectiveness of this component of the academy model. Strong partnerships between businesses and career academies can lead to beneficial opportunities for academy students.

The third component of the career academy model is the business partnership module. This key element highlights the uniqueness of career academies by establishing partnerships with local business and colleges. Participating teachers from both academies understood the importance of this component but conveyed that it was weak in many areas. The themes that emerged from the data all corresponded to participants valuing the importance of business partnerships but also understanding where this component needed improvement. Three additional themes emerged from the gathered data that were pertinent to the business partnership component of the career academy model. The three themes were: (a) internship opportunities will equip students with experiences that can benefit them after high school, (b) job shadowing provides opportunities for academy students to understand the relevance of what they are learning in the classroom, and (c) guest speakers provide students with valuable insight related to the workforce.

Internship Opportunities Translate into Valuable Experiences

Internship opportunities are a seminal piece of the career academy model. According to Maxwell and Rubin (2000), “Internships are the best focus the kids can get as exposure to the industry and the real world” (p. 179). Internships allow students to apply textbook concepts to the workplace.

All 23 participating academy teachers were surveyed about why business partnership benefitted academy students. The four options were (a) internships and job shadowing opportunities, (b) guest speakers from businesses, (c) field trips, (d) employment opportunities, and (e) none of the above. Participants were instructed to circle all options they felt were beneficial to the students. Option A was selected 18 times; option B was selected 13 times; option C was selected 12 times; option D was selected 10 times; and option E was selected 0 times. Teachers were also surveyed regarding their familiarity with the partnerships that existed within their academy. The results were as follows: 29% of the surveyed teachers were very familiar with the partnerships; 29% of the surveyed teachers were somewhat familiar; 25% of the surveyed teachers were not familiar; and 17% of the surveyed teachers selected *not applicable*. (See Figure 12)

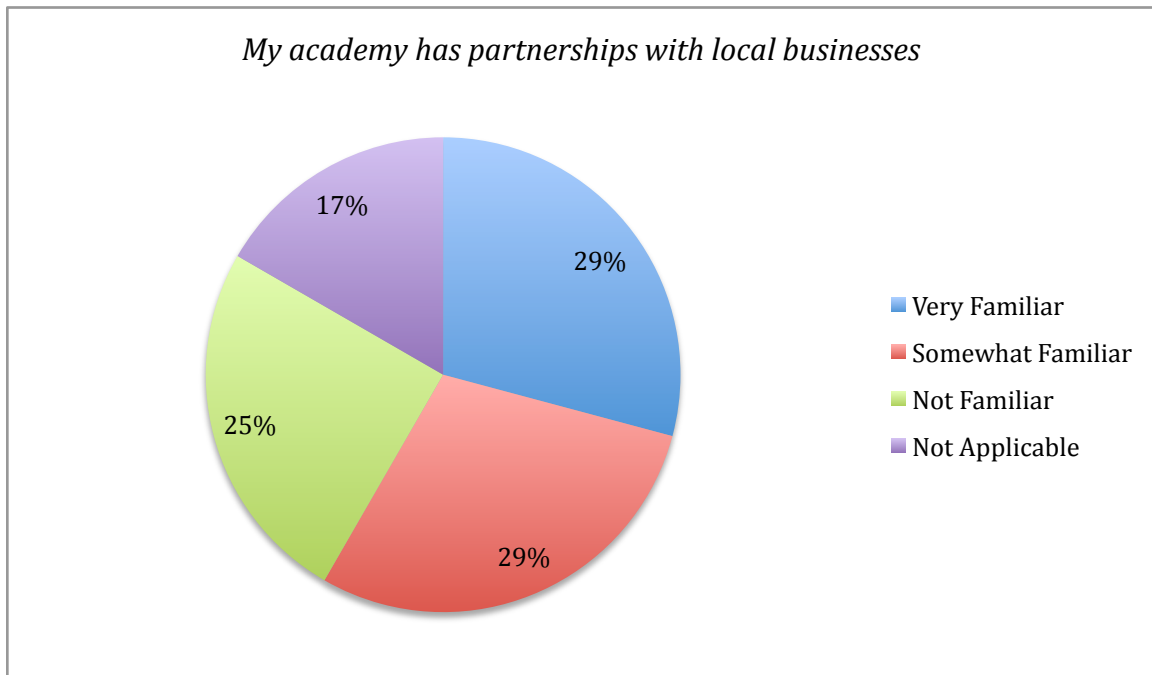


Figure 12. Academy teacher familiarity with the business partnerships.

Interviews indicated the importance of internships as a recurring theme. Internships were the one opportunity for academy students to really take ownership of their career pathways. Academy teachers agreed on this value unanimously. For example, Ms. Kim shared, “Internships will help our students get certified so that they can have training and skills after high school, it helps them financially and they’re gaining experience and building awareness.” Ms. Kim also expressed the importance of internships, explaining, “It helps students become more aware that you can actually have a job afterwards and you’re getting experience that you can actually be useful later.” Mr. Freeman added:

I think that’s the backbone of the academy to me. Ultimately, we’re training these students to become professionals at one if not many different discipline within that particular academy. Because of that, we want to make sure students are able to see live examples, models, of what it is they are getting into. Either to validate again what they want to do or to change their mind before it’s too late. And too mentorship and internship are all necessary for young people to succeed professionally, you got to see it to do it.

Academy teachers agreed that internships played critical role within the career academy model. The literature supports that such opportunities can benefit students by providing employers the option of hiring them upon graduation (Oakes & Saunders, 2008). Ms. Ly added:

I think that really drives it home, in terms of, if you’re really going to be an academy. The whole point is they do things because they care about the environment. The students want to see how different core subjects can relate to that theme or that focus. Academy teachers recognized the importance of aligning the curriculum to the academy’s

theme. Doing so conveys a sense of purpose to what is being taught and what is being learned.

Job Shadowing is an Opportunity to Understand the Relevance of What They Are Learning in the Classroom

Job shadowing provided academy students with on-site experience and the opportunity to ask questions throughout the process. Job shadowing is one of many different methods of helping students connect classroom activities to job-site experience with business partners (Stern et al., 2010). Job shadowing helps students gain valuable experience that cannot be purchased.

From the gathered data, job shadowing emerged as another recurring theme that academy teachers felt was beneficial to students. The recurrence of this theme indicated how job shadowing was valued and how it could be improved. For example, Ms. Roxy shared that their academy's relationship with local businesses needed improvement. She explained, "We don't have the formal relationships that will enable students to do internships and job shadowing." Ms. Roxy also expressed: "We experience challenges because we are in the entertainment capital of the world and it's very difficult for even college students to find job shadowing and internships so for high school students, it's extremely challenging." When asked about academies receiving support from local businesses, Mr. Chow indicated that there had been some level of assistance: "There's been guest speakers, job shadowing, and internships." Ms. Lauren added:

It is important, so students are more aware that you can actually have a job afterwards and you're getting experience now that can actually be useful later. As far as business partnerships, it's also up to the kids to take advantage of it though, last year, I set up

an internship with the local cable channel, but not a single person followed through on it.

It appeared that providing students job shadowing and internship opportunities presented some challenges. Opportunities were scarce. Additionally, students did not follow through when opportunities presented themselves.

The artifacts examined for this study revealed minimal evidence of job shadowing opportunities for students. Only one of the meeting agendas mentioned anything pertaining to job shadowing. Based on the interviews, observations, and surveys, job shadowing was clearly a much-needed resource for all academy students and was an area that needed immediate attention.

Guest Speakers Provide Students with Valuable Insight into the Workforce

Guest speakers are a crucial feature of the business partnership component of the career academy model. Academy teachers felt that guest speakers could provide academy students great insight regarding the day-to-day routines of working within various industries. Additionally, regular interactions with guest speakers allowed students to ask questions about the profession.

As revealed by the conducted interviews, academy teachers felt that guest speakers were beneficial to academy students in a variety of ways. They allowed academy students to meet and connect with professionals in the industry. Ms. Roxy shared, “The guest speakers is definitely a benefit for the students, they love having the guest speakers and our students are able to go on many fieldtrips, and without the financial reduction, they might not have that access.” When asked about how guest speakers were benefitting from the business partnerships, Ms. Lauren replied, “I think with the guest speaker, I think it’s benefitting

them. Some of the kids in here have a million questions and they want to know as much as possible, and they're really into it." Ms. Lauren added that guest speakers could influence student achievement, explaining:

The guest speakers, for some kids, that makes a big difference. As for as curriculum based for the other academy classes, I can't even say how much of a connection there is. All 3 are equally important in regards to impact on students.

Guest speakers are a great asset to career academies, giving students an opportunity to interact with professionals from the industry and to ask clarifying questions.

Overall, the gathered business partnership data for this study aligned to the literature; however, both academies demonstrated weaknesses in many areas—with no solution on the horizon. For example, data in the area of guest speakers did not support the literature. When distinguishing the difference between perception and data, 20 out of 23 academy teachers agreed that guest speakers were important to the business partnership component of the academy model. However, both academies had invited fewer than three guest speakers per year to interact with academy students. Dayton (2010) has indicated that most academies have an advisory board comprised of the academy coordinator, site administrator, district administrator, higher education representative, and local business representative. At the time of this study, both academies lacked such an advisory board. Mr. Johnson described the academy's relationship with local businesses as "pretty good, but we should have a team of businesses that we are working with, and a steering committee." Stringfield and Land (2002) have articulated that the advisory board should help with curriculum development and internship opportunities; unfortunately, such collaboration was nonexistent for both academies. Jenkins (2005) has expressed that all academy teachers should be on the same

page to maximize the potential of the career academy model.

The gathered data for this research did not indicate that level of coherence and collaboration in the academies. For example, two teacher participants from the EBA were not aware of the academy's cross-curricular project. Overall, all teacher participants in this research understood the importance of having business partnerships but realized that their current relationships needed improvement.

How Do Business Partnerships Identify with Human Capital Theory?

The gathered business partnership data to conduct this research related to Human Capital Theory on many levels. Human Capital Theorist Gary Becker developed that notion that an individual's degree of on-the-job training (OJT) will influence his or her future capacity in the labor market (Prinz, 2004). This belief was validated by the supporting data related to business partnership and how it benefits academy students. Through business partnerships, students are provided internships, job shadowing, and opportunities to interact with guest speakers from the profession. Prinz (2004) conveyed that Human Capital Theory pertains to acquiring a set of skills that helps one become more valuable to an organization. This assertion is warranted by all three themes that emerged from the data associated with the business partnership component of the academy model.

Chapter Five: Conclusion

At Olympic High School, the implementation of career academies provided a foundation to help students prepare for the workforce as they completed their high school requirements for graduation. The purpose of this qualitative case study was to examine the implementation and impact of the career academy model within a comprehensive urban high school. The findings from this study can inform future decisions pertaining to career academies at the site and district level.

This study examined how two career academies implemented the three components of the academy model. The two career academies under study were the Environmental-Based Academy and the Media-Based Academy, the three components of which were (a) a small learning community, (b) theme-based curriculum, and (c) business partnerships.

This chapter is divided into four sections. The first section will address the conclusion of this study by identifying how the academy model was impacting academy classes and areas of deficiency. Section Two will hone in on recommendations to improve the career academy model at Olympic High School. The third section will describe the various implications of this study. Finally, the fourth section will identify areas for further investigation.

Introduction

Career academies have a history that dates back to 1976. This reform model was developed to address the high dropout rate in the city of Philadelphia by providing students with vocational training to enter the workforce (Stern et al., 1992). The three core components that support the Career Academy model are (a) small learning communities, (b) a career theme, and (c) business partnerships. Additional factors influence the efficacy of

career academies, such as staffing, management, student selection, parental involvement, and funding.

From traditional schooling to vocational education to a hybrid of both (career academies, then multiple pathways, and now linked learning), the career academy concept has emerged from a variety of reforms. Despite an historical stigma that hinders vocational education from preparing particular individuals for the workforce without a college degree, career academies have grown into a reform that promotes both college and career awareness. While research continues to emerge about the effectiveness of career academies, studies show that academy students tend to outperform students who are enrolled in the same high school (Howard & Ill, 2004; Maxwell & Rubin, 2000; Stern et al., 1992).

Research Questions

This study examined the implementation of two career academies within a large public high school in an effort to understand the impact of this approach on teaching and learning. The following research questions served as a framework for examining the career academy model at Olympic High School.

- How does a small learning community influence classroom culture or environment in career academy classes?
- How are academy teachers implementing theme-based curriculum in career academy classes?
- How does access to business partnership and resources impact career academy classes?

The data produced from surveys, interviews, observations, and existing artifacts within this study brought forth the following findings. These findings align with and are

supported by the existing literature within the field.

Small learning communities positively impacted classroom culture. Small learning communities had a positive impact on teaching and learning at Olympic High School. Teacher participants unanimously agreed that the small learning community component of the career academy model had the most impact on student achievement. The structure of a SLC allowed a cohort of students to take multiple classes with the same group of teachers throughout their academy experience. This model enabled students to develop stronger relationships with their peers and teachers. Small learning communities facilitated meaningful teacher-student relations, a sense of belonging and attachment, more individualized instructions, and more opportunities for teachers and students to exercise autonomy (Oxley, 2001). All classes that were observed for this study demonstrated a high level of camaraderie between students and teachers. For example, in Ms. Lauren's elective class, students were constantly walking around to help each other and were not afraid to ask for help. Both academies utilized a variety of practices, such as fieldtrips, retreats, mentorships, and school events, to further foster companionship within the academy. For academy teachers, a positive rapport with students helped establish a propitious learning environment.

Theme-based curriculum was deficient. Theme-based curriculum in academy classes was either minimal or nonexistent. This aspect of the academy model appeared to be the most ineffective component of both career academies. Observation and interview data indicated that academy teachers taught academy and nonacademy classes similarly. During observations, teachers in core subjects did not demonstrate any curriculum alignment to the academy's theme. Academy teachers recognized the deficiency in this area, and their current

practice was in direct opposition to what the literature on theme-based curriculum has recommended (Oakes & Saunders, 2008). However, this discrepancy was a direct result of academy teachers lacking training and professional development.

The cross-curricular project was a critical element for both academies. Such projects are meant to involve interdisciplinary curriculum across multiple subject areas within the academy. The cross-curricular concept is a key element that separates a career academy from a traditional high school (Maxwell & Rubin, 2000). Based on interview data provided by EBA teachers, this component was clearly missing. Some EBA teachers were not aware that this project even existed. Conversely, the MBA was fully implementing the cross-curricular project with the involvement of multiple teachers across different subject areas. The disparity between these academies was a result of leadership change and lack of experience. The MBA coordinator had eight years of coordinator experience, whereas the EBA coordinator had one.

Business partnerships were nonexistent. Both academies lacked systematic or successful partnerships with local businesses. Career-themed academies should integrate relationships with employers and postsecondary education to help students gain experience and exposure to the connections between their subjects and career fields (Stern et al., 2010). Both academies demonstrated weak relationships with employers, which thus prevented academy students from gaining exposure to the jobsite through shadowing, internships, and actual paid work experiences. Academy students were provided very few opportunities to optimize their academy experience. Although teachers understood that minimal partnerships existed for both academies, they valued the importance of them and understood that this component must be developed to maximize the effectiveness of their academies. Academy teachers believed that strong partnerships would provide students with more internships, job

shadowing opportunities, and increased interaction with guest speakers.

Both academies needed a steering committee. Both the EBA and MBA lacked steering committees, which should consist of executives from local colleges and businesses and meet regularly to set program policies and guide important decisions. According to Stern et al. (1992), academies should establish a working task force that brings together teachers' and employers' representatives to define what students should know and be able to do when they leave the academy and to help determine the curriculum necessary to achieving these objectives (p. 108). Both academies were deficient in this area, as steering committees were nonexistent.

Conclusion

Implementation of the career academy model is possible for both career academies at Olympic High School. Of the three components of the career academy model, the small learning community component was successfully implemented. However, the other two components require immediate attention. Both academies acknowledged their areas of deficiencies and understand the importance of addressing the gaps. To further develop the theme-based curriculum component of the academy model, support must be provided from district leadership. Academy teachers must be provided with initial training, ongoing professional development, and common planning periods. To address the business partnership deficiency, academy coordinators must be held more accountable. Academy coordinators must continue to search and develop partnerships to provide students with internship and job-shadowing opportunities. (See Table 6)

Table 6

Overall Summary of Conclusion

Small Learning Community
<ul style="list-style-type: none">• Positive impact on teaching and learning• Stronger relationships between students and teachers• Students take multiple classes with the same cohort• Individualized instructions in a personal setting
Theme-Based Curriculum
<ul style="list-style-type: none">• Minimal theme-based curriculum was implemented in career academy classes• Academy and nonacademy classes were taught similarly• Academy teachers were not provided with adequate training to implement theme-based curriculum• Cross-curricular project was implemented with fidelity in one of the two academies
Business Partnerships
<ul style="list-style-type: none">• Both academies demonstrated weak partnerships with businesses• Academy students were provided with minimal internships and job shadowing opportunities.• Teachers in both academies acknowledged the lack of business partnerships, but understood the importance of this component• Both academies lacked a steering committee

Recommendations

This study was designed to explore how the two career academies at a large urban

high school implemented the career academy model and its implications for teaching and learning. The findings from this study can inform future decisions pertaining to career academies at the site and district level. (See Figure 13) The following figure represents the recommendations based on the findings.

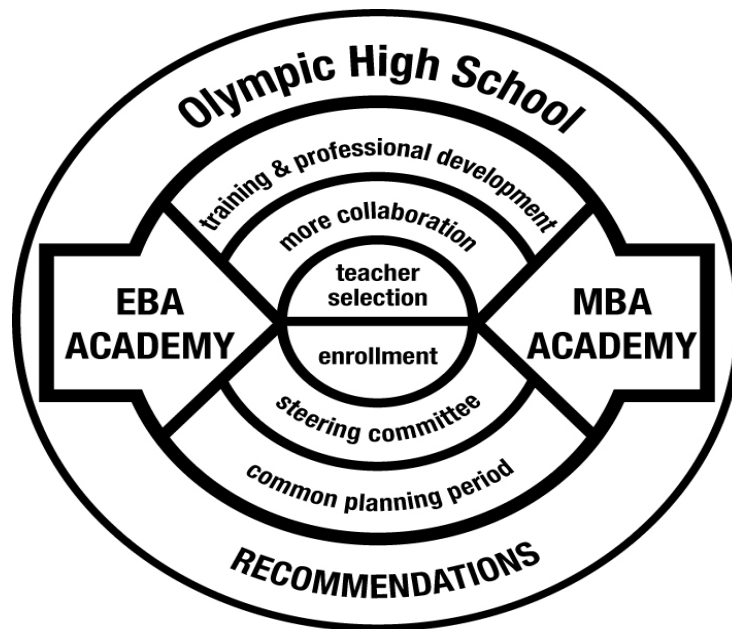


Figure 13. Recommendations for this study.

The small learning community is a key element of the career academy model. Small learning communities help personalize the academy experience for students. This model is critical for teachers and students to develop a positive rapport with each other.

Only academy students should be enrolled in academy classes. Until this problem is addressed, academy teachers must integrate theme-based curriculum regardless of whether all students in their classes are officially listed as academy students. At the time of this study, counselors were enrolling nonacademy students into academy classes; however, counselors are not to blame when new students check into the school and nonacademy classes have reached the contractual limit. Still, it is in the academy’s best interest to not enroll nonacademy students in academy classes. However, maintaining these distinctions require

districts to provide funding for additional sections when building the master schedule. Without the extra sections, preventing counselors and administrators from enrolling nonacademy students into academy classes is impracticable.

Academy teachers need common planning periods. Leadership must provide support and time for collaboration so that teachers can discuss and improve on instructional practices to maximize student learning (Supovitz & Christman, 2005). As shared by Mr. Freeman, “There has been good collaboration, but there’s not enough.” Common planning periods would allow academy teachers to discuss and share interdisciplinary activities, interventions, and best practices. Academy teachers must collaborate on a weekly basis to maximize the potential of the academy.

Academies should be selective with academy teachers. Teachers who convey disinterest should not be obligated to teach in an academy. Selecting academy teachers must be done meticulously (Stern et al., 1992). At the time of this study, some teachers expressed no interest in being part of the academies. For example, Mr. Chow admitted that he had neither interest nor the time to be an academy teacher. Academy teachers must be held accountable for their roles, contributions, and participation (Dufour et al., 2008), which may be a daunting task when dealing with academy teachers who display no interest in being part of the project.

All students should be enrolled in a career academy. If career academies are really as effective as they ought out to be, then the entire school should be divided into career academies. At the time of this study, only 25% of the student population was enrolled in a career academy. If research is in favor of the career academy model, then all students should be academy students.

Theme-based curriculum is paramount in academy classes. Theme-based curriculum must be integrated into academy classes, as it is essential to helping academy students align school-based learning with work-based experience.

Academy teachers must be provided initial training and ongoing professional development. The dearth of theme-based curriculum was due to the lack of training on how to align teaching practices with themed curriculum. As a result, the curriculum in most academy classes was identical to that of nonacademy classes. As shared by Ms. Roxy, “There’s no set curriculum, other than our technical classes. There’s no set academy curriculum for core classes.” Professional development is critical for maintaining well-trained teachers, who are the driving force behind successful schools (Gusky, 2009).

Professional development should focus on how teachers can integrate themed curriculum into their regular curriculum. Additionally, this training should provide academies with instruction on consolidating interdisciplinary curriculum across multiple subject areas.

Academy teachers should observe and collaborate with other academies from other schools. Observation and collaboration would provide academy teachers valuable insights about how to expand their ideas and practices. Academy teachers conveyed interest in observing academies from schools outside of the district. For example, Ms. Kim shared, “We need to be exposed to academy lessons, and even observe other schools.” Given the multiple dimensions of school structure and culture, educators must be given opportunities to use each other as resources to establish informal systems for interventions that address the needs of the students and the community (Lindsey et al., 2009).

Academy coordinators should collaborate regularly. Academy coordinators should share best practices and draw upon each other as resources to address certain issues.

Collaboration among coordinators should focus on improving cross-curricular projects and strategies to keep academy teachers motivated. At the time of this study, academy coordinators were not collaborating at all.

Business partnerships are a critical component of the academy model. Businesses must play a bigger role in both academies at Olympic High School. Without the support of local businesses, academy students will not be able to gain the valuable experiences they need to access career opportunities.

Academies must have a steering committee. These committees should consist of representatives from businesses and postsecondary educational institutions. According to Stern et al. (1992), “Successful academies involve employer representatives from a variety of levels and at a variety of times in their operations” (p. 104). Mr. Johnson described his academy’s relationship to local businesses as “pretty good,” adding, “but we should have a team of businesses that we are working with, and a steering committee.” This type of involvement should take place during academy collaboration and meetings.

Academies must increase their levels of collaboration with businesses. Through collaboration, employers should inform the academies of job availability and what knowledge, skills, and behavior is required for employment (Stern et al., 1992). Such collaboration should also facilitate the academy’s academic and technical curriculum. Employers should be involved in helping academies create or modify academy curriculum.

Interactions between academy teachers and business partners must increase. Based on the data, some academy teachers were definitely unsure of whom their business partners were and the type of involvement that was going on. Academy teachers should be knowledgeable about business partnership in various capacities to help inform academy

students about how they can benefit from these relationships.

Table 7

Overall Summary of Recommendations

Small Learning Community
<ul style="list-style-type: none">• All students enrolled in academy classes should be academy students.• Academy teachers must have a common planning period.• Academy teachers must be carefully selected.
Theme-Based Curriculum
<ul style="list-style-type: none">• Academy teachers must be provided with initial training and ongoing professional development.• Academy teachers should observe and collaborate with academies from other schools.• Academy coordinators should collaborate regularly.
Business Partnerships
<ul style="list-style-type: none">• Academies should form a steering committee consisting of representatives from businesses and postsecondary education.• Academies must increase their levels of collaboration with businesses.• Academies must increase their levels of interaction between academy teachers and business partners.

Implications of the Study

This study will contribute to the body of knowledge on how schools can effectively institute new career academies or maximize the potential of existing ones. This study outlined the three core components of the career academy model and focused on strategies

that require attention to help career academies excel. This research was intended to help schools provide students both academic and technical skills to prepare them for postsecondary education and career opportunities.

From this study, academy stakeholders at the district and site level can gain knowledge on best practices that can help academies successfully accomplish what they are intended to do. Additionally, educators can use this research to equip students with job skills and experience that will help them compete globally in the 21st-century international and domestic job market. It is worth noting that this study was not intended to solve the existing problems of the two participating academies that were the subjects of this research; however, the findings can still be used to help academy stakeholders improve and reexamine their current practices and policies to better serve the needs of academy teachers and students.

School leaders. The key findings from this study are important for leaders associated with career academies at the federal, district, and site level. Leadership at the federal level must hold districts accountable on how academy funds are spent. Money provided for academies must be allocated appropriately for academy use. Leadership at the district level must provide academy teachers with adequate training and ongoing professional development to sustain a high level of interest in working with academy students. Collaboration time and common planning periods must be provided to teachers so that they can share best practices. Site leadership must purposefully select teachers to teach in academies. Doing so enables school leaders to foster a culture supports accountability and shared responsibility and ensures the success of all academy teachers and students.

Academy teachers. Academy teachers are required to go beyond their call of duty. This study identified multiple challenges that academy teachers encountered but that

nonacademy teachers did not. Academy teachers must integrate theme-based curriculum regardless of the mixture of academy and nonacademy students in their academy classes. While scheduling remains an ongoing issue, academy teachers should teach academy classes as if every student is an academy student. Collaboration time must also be used effectively. Academy teachers must strategically use collaboration time to discuss intervention, best practices, business partnerships, and other issues that serve to improve the academy.

Business owners. This study delineated the various gaps between the academies and business partnerships. Local businesses can contribute to the success of career academies in various academy-related activities. Such involvement entails internship opportunities, guest speakers, employment, curriculum development, and participation in steering committees. Without the support of local businesses, academies will never be able to accomplish what they are designed to do.

Areas for Further Investigation

This study was only able to identify areas that required improvement in a career academy model using two career academies within a large urban high school. Because this research was limited in scope and approach, further studies are recommended for what they may contribute to the growing body of knowledge regarding the career academy model and its implications for teaching and learning while preparing students for the 21st-century workforce. The following are recommendations for future research.

Comparing academic achievement between academy and nonacademy students. Such a study would measure the efficacy of career academies. Academy students have access to more resources than nonacademy students; however, it is yet to be proven that academy students are outperforming nonacademy students. The scope of this study would compare the

standardized test scores, graduation rates, CAHSEE pass rates, and college acceptance rates of academy and nonacademy students at Olympic High School.

Tracking academy students after high school. Such a study would investigate the career paths of academy students after high school. More specifically, it would look into whether academy students pursue a postsecondary career that is aligned to the academy's theme. Such a study is important, as it would provide high school academies data that could inform school leaders about how meaningful the academy is and whether it is serving the appropriate purpose.

Are academy students at Olympic High School meeting CPA enrollment guidelines? Such a study would examine if in fact that 50% of the students placed in the two career academies are actually meeting enrollment criteria's set by the state. According to CPA (California Partnership Academies) 50% of the academies' enrollment must consist of at-risk students. At-risk students must have three or more of the following characteristics: (a) poor attendance, (b) history of underachievement, (c) low level of interest in the regular academic program, or (d) economic or educational disadvantage (Stern et al., 1992).

How are academy teachers supported in various districts? Such a study would focus on how academy teachers are supported in various districts outside of that of Olympic High School. Academy teachers at Olympic High School lacked training and ongoing professional development. This dilemma may not be the case for academy teachers in other districts. As school districts continue to encounter budget constraints, administrators may be forced to be more creative with how they allocate money for professional development.

Teacher accountability. Such a study would explore the level of accountability to which academy teachers are being held in various schools. Clearly, academy teachers at

Olympic High School were not being held accountable for not implementing theme-based curriculum in their academy classes. However, this situation may not be the case for academy teachers in other academies outside of the district.

Final Thoughts

Both the EBA and MBA must overcome many challenges to flourish as career academies. For years, both career academies had encountered challenges that failed to be addressed by school leadership. These obstacles existed at the site and district level. Fortunately for both academies, these challenges had recently been brought to light at the end of this study. The district was beginning to address some of the issues that were brought up by teacher participants during their interviews. Common planning periods and enrolling only academy students in academy classes were imminent for both academies; additionally, there was a push for more and stronger business partnerships. Despite the challenges, the district appeared to be striving to ensure that all career academies were following the career academy model.

Olympic High School was also preparing to start another career academy. The findings from this research will help ensure that the academy model is faithfully implemented to ensure the success of all academy teachers and students. This study will be shared with site- and district-level administrators to help the leadership team provide academy teachers with adequate support. More specifically, this study will help the new academy minimize some of the issues encountered by the existing ones. This research can be used as one of the many resources to ensure the success of the new academy. However, there is still much to learn about career academies and how to sufficiently equip academy students

with the academic knowledge, career technical mastery, and workforce experience to compete globally.

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APPENDIX A

Teacher Consent Form

Consent to Participate in Research

“A Case Study Examining the Career Academy Model at a Large Urban Public High School.”

You, the teacher, are asked to participate in a research study conducted by Howard Ho, a doctoral student in the Ed.D. Educational Leadership and Policies Program at Pepperdine University. This study is being conducted in partial fulfillment of the requirements for a dissertation. You were selected as a possible participant in this study because you are a teacher at Olympic High School who is teaching in a career academy.

PURPOSE OF THE STUDY

The purpose of this study is to examine how career academy model influences teaching and learning at a large, urban, public high school.

PROCEDURES

If you volunteer to participate in this study, you will do the following things: 1) return the Teacher Consent Form within the designated time period (1 week), 2) complete a short survey questionnaire (10 minutes) on your career academy experience and/or 3) participate in an interview (45-60 mins.) with the researcher outside of school hours and 4) agree to be observed in your classroom twice. No identifying information for individual teachers will be published in the results of this study. All interviews will be digitally recorded. All data will be kept in locked storage for a minimum of five years and then destroyed.

POTENTIAL RISKS AND DISCOMFORTS

Potential risks and discomfort associated with participation in this study is the imposition on the your time and/or emotional discomfort. Should you feel emotionally discomforted, you will be provided a break before questions resume. Furthermore, interview participants at any point can request for the recording device to be turned off, choose not to answer any question, or choose to end the interview.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

A potential benefit to the participants is to help them better understand the career academy model. Such awareness can help academy teachers improve their instructional practices. The potential benefit of this study for the school district where this study is taking place will be to

inform educational leaders of the effectiveness of career academies in improving student achievement, so that the school district will consider expanding career academies to include more areas of study.

CONFIDENTIALITY

I understand that no information gathered from my study participation will be released to others without my permission, unless such a disclosure is required by law. I understand that under California law, the privilege of confidentiality does not extend to information about the abuse of a child. If the investigator has or is given such information, he is to report it to the authorities. The obligation to report includes alleged or probable abuse as well as known abuse. Furthermore, under California law, the investigator is obligated to report any evidence of physical abuse against elders or dependant adults, or if a person indicates she or he wishes to do serious harm to self, others, or property.

PARTICIPATION AND WITHDRAWAL

Participation in this study is voluntary. You, the teacher, can volunteer to participate in this study or not. If you volunteer to be in this study, they may withdraw at any time without consequences of any kind. Participation or non-participation will not affect your job status or any personal consideration or right you usually expect. You may also refuse to answer any question that you do not want to answer and still remain in the study. There will be no compensation for participation in this study.

IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Responsible Investigator: Mr. Howard Ho (310) 263-XXXX or Faculty Sponsor: Dr. Anthony Collatos at (310) 568-5671 or Anthony.collatos@pepperdine.edu.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights, or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact the Office of GPSIRB, 6100 Center Drive, 5th Floor, Los Angeles CA, 90045; Telephone: (310) 568-5753 or email to gpsirb@pepperdine.edu.

SIGNATURE OF PARTICIPANT

I understand the procedures and conditions of my participation described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

PRINTED NAME OF PARTICIPANT: _____

SIGNATURE OF PARTICIPANT: _____

DATE: _____

APPENDIX B

Assistant Superintendent's Consent Form

TO:

FROM: Howard Ho

DATE: November 26, 2011

SUBJECT: Asst. Superintendent's Permission to Conduct Study

Dear _____,

My name is Howard Ho and I am a doctoral student at Pepperdine University, conducting my dissertation research in partial fulfillment of the requirements for the doctorate degree in education. The purpose of the research is to examine the career academy model and how it influences teaching and learning. I am writing to request permission and assistance in conducting a portion of my study at the Olympic High School site. The information gathered will be included in my final report and can be shared with your community throughout the research process beginning March and ending in December 2012.

I will share the purpose of the study and explain why the particular site was chosen with all participants. Interviews will be scheduled at mutually convenient times for the participants. Pseudonyms will be used. Tape recordings and transcribed materials will be locked and secured. Participant's identities will remain confidential and the interview notes and recordings will not be shared with others. Participation in this study is voluntary. Participants who decide to participate are free to withdraw their consent or discontinue participation at any time.

I am certain that the results of this study will provide data identifying the effectiveness of career academies in improving student achievement when participants focus on integration of academic and vocational education, personalized supportive learning environment, and work with local business to explore career options.

If you have questions concerning this research, please direct them to Howard Ho, Responsible Investigator at (310) 263-XXXX ext. 506XXX or you may also call me dissertation chair Anthony Collatos, Ph.D. at (310) 717-4284 or Anthony.collatos@pepperdine.edu.

Your signature indicates that you have read and understood the information provided above, that you willingly agree for me to participate in this study, and that you have received a copy of this form.

Respectfully,

Howard Ho

I hereby consent to my school district's participation in the research described above.

Name of School District

Signature

Please Print Name

Date

APPENDIX C

Principal's Permission to Conduct Study

TO:

FROM: Howard Ho

DATE: November 26, 2011

SUBJECT: Principal's Permission to Conduct Study

Dear _____,

My name is Howard Ho and I am a doctoral student at Pepperdine University, conducting my dissertation research in partial fulfillment of the requirements for the doctorate degree in education. The purpose of the research is to examine the career academy model and how it influences teaching and learning. I am writing to request permission and assistance in conducting a portion of my study at the Olympic High School site. The information gathered will be included in my final report and can be shared with your community throughout the research process beginning March and ending in December 2012.

I will share the purpose of the study and explain why the particular site was chosen with all participants. Interviews will be scheduled at mutually convenient times for the participants. Pseudonyms will be used. Tape recordings and transcribed materials will be locked and secured. Participant's identities will remain confidential and the interview notes and recordings will not be shared with others. Participation in this study is voluntary. Participants who decide to participate are free to withdraw their consent or discontinue participation at any time.

I am certain that the results of this study will provide data identifying the effectiveness of career academies in improving student achievement when participants focus on integration of academic and vocational education, personalized supportive learning environment, and work with local business to explore career options.

If you have questions concerning this research, please direct them to Howard Ho, Responsible Investigator at (310) 263-XXXX ext. 506XXX or you may also call me dissertation chair Anthony Collatos, Ph.D. at (310) 717-4284 or Anthony.collatos@pepperdine.edu.

Your signature indicates that you have read and understood the information provided above, that you willingly agree for me to participate in this study, and that you have received a copy of this form.

Respectfully,

Howard Ho

I hereby consent to my school district's participation in the research described above.

Name of High School

Principal's Signature

Please Print Principal's Name

Date

APPENDIX D

Survey Email Script

Thank you for taking the time to participate in this survey. The purpose of this survey is to examine how the career academy model influences teaching and learning at a large urban high school. This survey will consist of 12 questions, 5 multiple choice and 7 Likert type questions. Your participation will remain confidential and only the researcher will have access to the data. After the study, the data will be kept for 5 years and then destroyed.

Participation or non-participation will not affect your job status, or any personal consideration, or right that you normally expect. You may also refuse to answer any question that they do not want to answer and still remain in the study. There will be no compensation for participation. A potential benefit to you as a participant is to help you better understand the career academy model. Such awareness can help academy teachers improve instructional practices.

APPENDIX E

Teacher Survey Questions

Please answer the questions to the best of your ability.

1) How many years have you been teaching in the academy?

- a. 1-2 years b. 3-5 years c. more than 5 years

2) What is your gender?

- A. male B. female

Check one box per question	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
3) I am familiar with the 3 core components of the career academy model.					
4) My academy classes are smaller than my nonacademy classes.					
5) I am much more effective as a teacher when there are fewer students in your class.					
6) My daily lessons are aligned with my academy's theme.					
7) As an academy teacher, I have access to supplemental resources for my academy classes.					
8) My academy has partnerships with local businesses.					

For question 9, please circle 1 choice that applies to your instructional practices.

9. How often do you align your curriculum to your academy's theme?

- a. 1-2 times a week
- b. 3-4 times a week
- c. once a month
- d. everyday
- e. never

For questions 10-12, circle all that applies to you

10. Why do you think a small learning community benefits academy students?
- a. Teachers within the same SLC or Academy collaborate more effectively to improve teaching practices
 - b. Teachers develop a stronger relationship with academy students
 - c. Academy students develop a stronger relationship with other academy students
 - d. Intervention is much easier to implement
 - e. None of the above
11. Why do you think having business partnerships is most beneficial for academy students?
- a. Internship and job shadowing opportunities
 - b. Guest speakers from businesses
 - c. Field trips
 - d. Employment opportunities
 - e. None of the above
12. Which of the three core components of the career academy model do you think has the most impact on your academy students?
- a. Small learning community
 - b. Theme-based curriculum
 - c. Partnership with businesses
 - d. All 3 choices impact my students equally

APPENDIX F

Interview Script

Thank you for taking the time to participate in this interview. The purpose of this interview is to examine how the career academy model influences teaching and learning at a large urban high school. This interview will consist of 9 open-ended questions and will be digitally recorded. Your participation will remain confidential and only the researcher will have access to the data.

Should you feel emotionally discomforted, you will be provided a break before questions resume. Furthermore, at any point, you can request for the recording device to be turned off or choose not to answer any question.

Participation or non-participation will not affect your job status, or any personal consideration, or right that you normally expect. You may also refuse to answer any question that they do not want to answer and still remain in the study. A potential benefit to you as a participant is to help you better understand the career academy model. Awareness can help academy teachers improve instructional practices and to help others better understand career academies.

APPENDIX G

Teacher Interview Questions

Interview Questions	Career Academy Model Target	Addresses Research Question (s)	Literature
1. What has been your experience as an academy teacher?	slc, themed-curriculum, work-based learning	1,2,3,4	
2. According to some researchers, career academies should consist of 3 core components, small learning community, theme-based curriculum, and business partnerships. Why do you think a small learning community is beneficial to students?	Slc	2	(Oxley, 2001; Dufour, 2008)
3. Describe, if any, the difference in autonomy between your academy and nonacademy classes?	Slc	2	(Dayton, 2010; Stern et al., 2010; Smink & Schargel, 2004; Oakes & Saunders, 2008)
4. How do you align your teaching practices to your academy's theme?	Themed curriculum	3	(Smith, 2008; Maxwell & Rubin, 2000; Kuo, 2010)
5. Why do you think it's important for academy teachers to align their teaching practices to the academy's theme?	Themed curriculum,	3	(Smith, 2008; Maxwell & Rubin, 2000; Kuo, 2010)
6. Why do you think it's important to have business partnership with local businesses?	Business partnerships	4	(Orr, 2005; Dayton, 2010; Kemple, 2001; Oakes & Saunders, 2008)
7. How are your students benefitting, if at all, from the business partnerships?	Business partnerships	4	(Orr, 2005; Dayton, 2010; Kemple, 2001; Oakes & Saunders, 2008)
8. Which component of the career academy model do you think has the most impact on the students? And Why?	slc, themed-curriculum, business partnerships	1,2,3,4	
9. Which component of the career academy model do you feel needs the most improvement?	slc, themed-curriculum, business partnerships	1,2,3,4	

Research Questions

- How does a small learning community influence classroom culture career academy classes?
- How are academy teachers implementing theme-based curriculum in career academy classes?
- How does access to business partnership and resources impact career academy classes?

APPENDIX H

Recruitment Flyer

Attention All Academy Teachers

You are cordially invited to participate in a research study conducted by Mr. Howard Ho, a doctoral student in the Ed.D. Educational Leadership and Policies Program at Pepperdine University. This study is being conducted in partial fulfillment of the requirements for a dissertation. You were selected as a possible participant in this study because you are an academy teacher at Olympic High School.

Title of the Study

“A Case Study Examining the Career Academy Model at a Large Urban Public High School.”

Purpose of the Study

The purpose of this study is to examine the implementation and impact of the career academy model at a large urban public high school.

If you are interested in participating, please email him at mr.howardho@yahoo.com or call him at (310) 263-2200.

APPENDIX I

Recruitment Email

Attention All Academy Teachers

You are cordially invited to participate in a research study conducted by Mr. Howard Ho, a doctoral student in the Ed.D. Educational Leadership and Policies Program at Pepperdine University. This study is being conducted in partial fulfillment of the requirements for a dissertation. You were selected as a possible participant in this study because you are an academy teacher at Olympic High School.

Title of the Study

“A Case Study Examining the Career Academy Model at a Large Urban Public High School.”

Purpose of the Study

The purpose of this study is to examine the implementation and impact of the career academy model at a large urban public high school.

If you are interested in participating, please email him at mr.howardho@yahoo.com or call him at (310) 930-1278.

APPENDIX J

Observation Instrument

Subject:	Date of Observation:	Academy EBA or MBA
Observed Lesson:	Notes:	
Relevance to academy's theme: yes or no	Notes:	
Descriptive Notes:		Reflective Notes: