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A Program Evaluation Of The Career Pathways CTE Program At One High School

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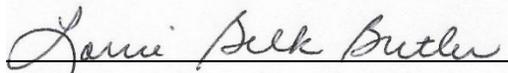
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A Program Evaluation of the Career Pathways CTE Program at One High School

Terrace L. Brown

Educational Leadership Doctoral Program

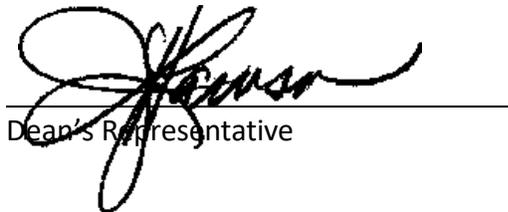
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A Program Evaluation of the Career Pathways CTE Program at One High School

Terrace L. Brown

Educational Leadership Doctoral Program

Submitted in Partial Fulfillment
of the Requirements of
Doctor of Education

National Louis University
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ABSTRACT

A leading solution to many education problems in our country is Career and Technical Education (CTE). Jacob (2017) indicated that by combining traditional academic skills with hands-on experience that provide hands-on training, students can acquire the "soft skills" necessary to succeed in today's workplace. As the 21st-Century economy grows more complex, the role of career and technical education is critical to the success of America's future through increased student engagement, innovative math, science, and literacy integration, and meeting employer and economic need. In my study, I sought to determine the perceptions of administrators and instructional staff at one school concerning the effectiveness of the Career Pathways CTE program in increasing student achievement and graduation rates and giving students other options to pursue postsecondary education. I used a mixed-method research design based on qualitative and quantitative data. As a result of my research, I made a policy recommendation that students take a basic skills assessment before enrollment to decrease program remediation. In my policy, I also recommended professional development for all instructional staff and externships for CTE teachers to stay current with the workforce trends.

PREFACE

I chose my dissertation topic because of the perceptions of educators and parents that CTE programs are for underachieving, low-income persons of color to train for low-wage jobs. Most people at one time in their life were exposed to or participated in a CTE program such as Home Economics, Woodshop, or Auto shop. I have been a product of Career and Technical Education since the first day of Home Economics class in high school. I worked as a dietary aide as a teenager, assembled munitions and bombs in the Air Force Reserves, and was a surgical instrument room technician, eventually becoming a supervisor over the Central Processing of surgical instrumentation and medical supplies of a 1400-bed hospital.

I was not the typical student attending college and finishing in four years. I attended college sporadically and worked in a CTE field that paid high wages and taught me soft skills to communicate with adults much older than me at the age of 17. I gained leadership and critical problem-solving skills through hands-on experience and hands-on training, which are skills that most employers look for in a valuable employee. I later decided it was time to go back to college to complete a bachelor's degree in Information Technology, which is part of CTE, and then later to complete a master's degree in Career and Technical Education to become a CTE teacher possibly. As a former CTE student, I decided to pursue a Doctoral Degree in Educational Leadership to do more research and to be an advocate for CTE.

The leadership lessons I learned through my research and the program evaluation I completed were that student learning should be a top priority in any school. An effective school leader devises an instructional plan that includes the collaborative efforts of all

employees to improve student learning outcomes. A leader must show transparency, have an open line of communication, and allow others to take on leadership roles. All these lessons learned are essential in developing an effective plan to sustain a culture conducive to the optimal achievement of all students. My journey is not yet over. It has just begun to be the voice of all former and present CTE students that Career and Technical Education Programs are America's future.

ACKNOWLEDGEMENTS

First, I would thank Our Heavenly Father, His Son, and The Holy Spirit for guiding me and being by my side throughout my educational journey. There were plenty of times I wanted just to give up and throw in the towel, but I knew HE would never leave me nor forsake me if I trusted and believed in Him. “What shall we then say to these things? If God be for us, who can be against us?” – Romans 8:31 (King James Version).

I would also like to acknowledge my gratefulness and true appreciation for my dissertation chair, Dr. Lorrie Butler, for always being there for me when I felt I could not go any further and for igniting that fire under me to keep me on track and focus on the end goal, completing my dissertation. I give thanks to Dr. Carla Sparks for believing in me to allow me to jump back into the dissertation continuation phase of my journey and for putting together a stellar dissertation committee which also included Dr. Christie McMullen and Dr. James Lawson. I truly thank you all for your support and words of encouragement.

I must give thanks to Dr. Manuel Ferreras for running into me at a school fire drill and encouraging me to continue my dissertation journey. Also, I give thanks to Dr. JoAnn Whiteman, my chair at the University of Central Florida, who planted the seed to pursue a doctoral degree and Dr. Carol Burg and the NLU dissertation committee for Cohort TA003, and to all my friends from my Cohort TA003. God places people in your life for a reason, and thanks for your support.

Finally, I would like to thank my wonderful and patient husband (Mark Brown) and mother (Shirley Jones-Fields), who were my number one and two cheerleaders who

were always there cheering me on during the good and the bad times of my journey; there were quite a few bad times, and they were right there for me to lift my spirits.

DEDICATION

This dissertation is dedicated to My God in heaven who makes all things possible, “No weapons formed against me shall prosper....” Isaiah 54:17 (King James Version).

To my wonderful husband, Mark Brown, who stuck by me through thick and thin: Thank you. I love you and truly appreciate your patience and undying support. Thank you for being my “Ride or Die.”

To my wonderful sons, Brandon Wilson and Austin Brown, whom I love dearly, thank you for supporting me, believing in me, and reassuring me that this was possible.

To my loving and beautiful sisters, Dr. Terease Waite, Lynette Dimmel, Carmon Walker, and Hollye Hendricks, thank you for always answering your phone when I needed your support and someone to vent to; you know who you are.

To my grandmother, Louise Jones-Mama (Deceased) who would have been so proud of me and will always have my heart! Your namesake did it!

To my father, Larry R. Fields (Deceased), I wish you were here to witness this. To Walt and my gorgeous, funny, witty mother, Shirley Jones Fields, who always has a shoulder to lean on or cry on. You made me write this! Thank you for your unwavering support, and I love you!

Last and certainly not least, thank you to all the Career and Technical Education (CTE) students, especially the ones of color like me, who chose CTE as an option to receive hands-on training to become contributing citizens who furthered their educational endeavors to become successful entrepreneurs or college graduates. Keep dreaming and believing in yourself because dreams do come true.

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Chapter One: Introduction

Career and Technical Education (CTE), once known as vocational education, has evolved significantly over the years. It has transitioned from the stigma of being known as a program exclusively for low-achieving or disabled students on the verge of failing or dropping out of school to a high-quality program linked by research to raising student achievement. Giani (2019) suggested, “Despite career and technical education’s (CTE) reputation as a “Dumping Ground” for unmotivated and academically disciplined students, CTE now creates rigorous studies aligned with in-demand postsecondary education programs and career pathways” (para. 1). Most career and technical programs are offered to students at the beginning of their junior year because, at that time, students begin to lose interest in school. Students enrolled in CTE programs in their later high school years were most likely to remain in school and graduate on time, thus reducing dropout rates and increasing graduation rates (Gottfried & Plasman, 2017). Shultz (2016) noted a career-focused education leads to higher rates of high school graduation and post-secondary participation than comprehensive high schools without such a focus.

Students dropping out of high school has been a phenomenon that has plagued researchers and policymakers for many years. Researchers have been trying to uncover why high school students drop out before graduation and how to prevent an increase in dropout rates. Berk (2014) stated, “When students do not obtain a high school diploma, there are negative consequences that could occur as a result such as criminal activity, unemployment, severe health issues, and a higher rate of poverty” (p. 396). As Berk pointed out, there are more serious consequences of dropping out of high school for students than not receiving a high school diploma.

The school under study had decreased graduation rates for decades before my study due to an economic shift leading to high unemployment rates, resulting in parents working two or more jobs. Studies have suggested a child's financial situation affects whether they stay in school or drop out. McLaughlin and Sheridan (2016) agreed the environment, including abuse, neglect, or poverty, can negatively affect children's physical and mental health and poor academic performance (pp. 239-245). According to the American Psychological Association's (2017) socioeconomic fact sheet, The National Center of Education (2014) reported that the high school dropout rate among persons 16–24 years old was highest in low-income families (11.6%) and lowest in high-income families (2.8%, p. 2). Even with the two more jobs, the families often remained below 150% of the poverty level. Parents having to work two or more jobs had no accountability for their child's learning experiences, which contributed to poor academic performance, increased high school dropout rates, and crime. Heinrich (2014) confirmed that research suggested that students who have working parents and spend time without parental supervision at an early age are less likely to do well in school and engage in risky activities.

Wagner (2008, p. xix) suggested, "Only about a third of U.S. high school students graduate ready for college today, and the rates are much lower for poor and minority students." The school under study was once a diverse high school located in a financially stable neighborhood with bustling shops, beautiful homes, and students who performed above average academically. At the time of my research, this school had a student population with a 98% minority rate, who performed low academically, and 79% of the student body received free or reduced lunch.

Leaders at the school under study wanted to reduce dropout rates, raise student achievement, and give students another avenue to obtain a post-secondary education. The principal of the school under study elected to offer students the opportunity to earn college credits while still in high school to gain real-life job skills before graduation through a career and technical education program entitled “Career Pathways.” The Career Pathway’s CTE programs allow students to have a hands-on approach to learning. Students in the CTE program receive the academic foundation from the school curriculum and are given experience through internships and job shadowing, which is more tangible for some students. Deluca et al. (2008) stated that in a 2003 report from the National Assessment Education, “combining academic courses with CTE courses can be a powerful experience for students, keeping them attached to the school and motivating them to complete their high school diploma” (p. 346). CTE programs may also encourage some students to define their career goals, thus keeping them interested in school. Educators need to find ways to keep students engaged in the learning process to decrease dropout rates and increase student achievement among lower-performing students, so they can graduate from high school and pursue post-secondary education. As noted by Cullen et al. (2013), integrating CTE and core academic skills that are an excellent match to a student’s interest will raise student achievement and keep students engaged and motivated to stay in school.

At the time my study was conducted, the State Department of Education for the school under study measured a student’s achievement level on the State Standardized Assessment (SSA) using five levels, beginning with Level one: Inadequate – Highly likely to need substantial support; Level two: Below Satisfactory – Likely to need

significant help; Level three: Satisfactory- May need additional support; Level four: Proficient – Likely to excel; and Level five: Mastery – Highly likely to excel. Of the students taking the SSA at the school under study, 23% scored at a satisfactory level (level three) or higher in reading, and 51% achieved at an acceptable level or higher in math, compared to district percentages of 67% of students in reading and 72% of students in math earning a level three or higher on the SSA. For a young person to succeed in society, transition to adulthood, and achieve occupational and economic success, Milovanska-Farrington (2020) noted that academic success must be obtained (p. 527). Unfortunately, the students at the school under study achieved very low academically compared to the other schools in the district.

Career and technical education (CTE) offer a significant solution to many problems in our nation's education system. Jacob (2017) suggested that integrating traditional academic skills with a "real-world" work setting through work-related or internship-like experiences, which provides hands-on training, will provide students with the "soft skills" needed to succeed in today's labor market. CTE programs support and integrate a full range of academics. The programs provide all students with labels ranging from "gifted" to "at-risk" rich educational opportunities, equipping them for the dramatic transition from high school to postsecondary education to contributing citizens in a competitive global economy. According to Gordon and Shultz (2020),

High-quality career and technical education can ensure America's future competitiveness through increased student engagement, the innovative integration of math, science, and literacy skills, and by meeting the needs of both employers

and the economy. Career and technical education prepare both youth and adults for a wide range of careers in the 21st century economy. (p. 299)

With the need for highly skilled workers who can compete in a competitive global economy, governments and businesses rely on CTE programs to educate and train prospective employees to enter the workforce with employability skills beyond entry-level.

Purpose of the Program Evaluation

Several challenges have arisen from CTE programs related to promoting its value. Howell et al. (2019) believed (a) outdated perceptions, limited awareness, and long-held stigmas, (b) blending of credit and non-credit priorities, (c) access to both institutional and individual student resources, and marketing of CTE programs are all part of the challenges which can form misconceptions of its effectiveness to enhance student learning. This project aimed to evaluate whether the Career Pathways Career and Technical Education (CTE) program at one high school was effective for its intended use. The intended use included: raising student achievement, improving graduation rates, and giving students other options when pursuing post-secondary education. According to Patton (2008),

Evaluations aimed at determining the overall merit, worth, significance, or value of something are judgment-oriented...summative evaluations judge the overall effectiveness of a program and are particularly important in making decisions about continuing or terminating an experimental program or demonstrative project. (pp. 113-114)

Leaders in the high school under study were confronted with the issue of low student achievement and graduation rates and had to devise a plan to address these issues. The Career Pathways CTE program was implemented at the school under study to increase school engagement, retention, and high school completion. I became aware of the Career Pathways CTE program as an educator when a school guidance counselor asked me to assist seniors with the Free Application for Federal Student Aid (FAFSA). I noticed that guidance counselors placed mostly students on the verge of not graduating in the Career Pathways CTE program to complete a credit retrieval class. I noticed the guidance counselors placed none of the higher achieving students into the Career Pathways CTE program. It became apparent that the guidance counselors put students in the program as a credit retrieval tool instead of using it to ensure students graduated prepared for the workforce or post-secondary training.

Rationale

I chose to evaluate this program because there were misconceptions among educators regarding the validity of career and technical (CTE) programs concerning their effectiveness in raising student achievement. As a former CTE participant in high school, I can vouch for how Career and Technical programs boost students' academics and provide "real world" work experience and employability skills. I chose to evaluate the Career Pathways program because I was a CTE participant. I knew first-hand how CTE played a vital role in my academic achievement and graduating from high school to enroll in college successfully. Once I finished my CTE program, my grade point average (GPA) increased, and I could gain employment making more than minimum wage. My increased GPA allowed me to gain admission acceptance into Michigan State University.

Educators initially designed CTE programs to prepare students to enter the workforce shortly after the completion of a program in high school. Once known as “vocational education,” CTE was initially only utilized by failing students to prepare them for low-wage jobs upon graduating high school. The American Institutes for Research (2013) reported, “CTE is no longer just about teaching students a narrow set of skills, sufficient for entry-level jobs; it is about preparing students for careers” (p. 1). Not only were CTE programs plagued with the misconception that failing students enrolled in CTE decrease the likelihood of dropping out of high school, but also only minorities and students from low socioeconomic backgrounds enrolled in CTE programs because of the low academics and the exposure to poverty-stricken social environments (Plank et al., 2008). For those reasons, I wanted to dispel the fallacies that have overshadowed CTE programs and evaluate the effectiveness or ineffectiveness of the Career Pathways CTE program at the school under study to raise student achievement and increase its graduation rates.

In 2007, the state of the school under study passed the Career and Professional Education Act. The purpose of this act was to expand the industry certification programs to postsecondary students and not limit them to just secondary students. According to the Department of Education for the state, “the act is to provide a statewide planning partnership between the business and education communities to attract, expand, and retain targeted, high-value industry and sustain a strong, knowledge-based economy” (citation withheld to protect confidentiality) which is beneficial to all stakeholders such as school districts, teachers, students, and the community. CTE programs can strengthen the economy, and stakeholders can see a considerable return on talent and productivity in

their community. A study by the Career and Technical Education Partnership (CTEP) program at Middlesex County College supported the benefits of CTE programs. The authors reported

Employers benefit from students enrolled in CTE programs because they have an opportunity to partner with educators to prepare future employees with the skills and motivation needed to succeed. Educators benefit from CTE students because when students see the connection between what they are doing in the classroom and how it applies to the real world, they become enthusiastic and engaged learners. CTE programs that offer courses with the option to earn college credits are especially beneficial to families and students because tuition is less expensive than a traditional college or university and students can pursue additional opportunities for postsecondary education completion (CTEP, 2014, p. 1).

It is apparent CTE offer many opportunities for students to take advantage of, such as obtaining college credit at a low cost while gaining real-world skills that future employers seek in new hires. In addition, the opportunities that CTE affords students benefit their growth and success in the global marketplace.

Goals

My goal for this study was to determine the efficacy Career and Technical Education had on improving student learning and academic gains from the perceptions of the teachers, staff, and administrators at the school under study. CTE programs can fulfill the need to produce academically sound students with high-quality technical skills needed to succeed and compete in this exceedingly competitive global marketplace. Loera et al. (2013) reported Stone and Lewis (2012) found that incorporating academic

classes with CTE-related classes enhanced young people's employability and increased the potential for students to succeed in college. In addition, Seaton (2019) acknowledged, “in a recent study of CTE graduates in Arkansas found completion of high school CTE courses was associated with higher two-year college admission, lower unemployment, and higher salaries” (p. 2). Hence with his findings, Seaton reiterated how CTE programs generate successful student outcomes.

Definition of Terms

For this study and the clarification of terms associated with Career and Technical Education, the following will serve as working definitions:

Career and Technical Educational (CTE) – Organized educational programs offering courses directly related to the preparation of individuals in paid or unpaid employment and current or emerging occupations requiring a baccalaureate or advanced degree (Gordon & Schultz, 2020).

Career Pathways – A coherent sequence of rigorous academic and technical courses that prepare students for successful completion of state academic standards and support transition to more advanced postsecondary coursework related to a career area of interest (Gordon & Schultz, 2020, p. 363).

Dropout Spells – 30 days or more away from high school for a reason other than illness or vacation (Deluca et al., 2008, p. 346).

Job Shadowing – An opportunity to give students firsthand knowledge and experience in exploring the world of work (Gordon & Schultz, 2020, p. 366).

Postsecondary Education – The provision of a formal educational program primarily designed for students with high school diplomas or equivalents. This includes

academic, career and technical, and continuing professional education programs and excludes vocational education programs (Gordon & Schultz, 2020).

Research Questions

As a result of low student achievement and declining graduation rates at the school under study, school leaders instituted a Career Pathways CTE program. To evaluate the effectiveness of the program, I developed the following primary research questions that have prompted me to pursue this evaluation are:

1) What is working well with the Career Pathways CTE program according to the established goals, such as: raising student achievement, as reported by staff members, teachers, administrators, guidance counselors and the career pathways coordinator?

2) What do members of the staff, teachers, administrators, guidance counselors and the career pathways coordinator at the school under study report as working well with the implementation of the Career Pathways CTE program raising graduation rates?

3) What do members of the staff, teachers, administrators, guidance counselors and the career pathways coordinator at the school under study report as not working well with the implementation of the Career Pathways CTE program concerning improving graduation rates and raising student achievement?

4) What do members of the staff, teachers, administrators, guidance counselors and the career pathways coordinator at the school under study report as ways to improve the implementation of the Career Pathways CTE program to raise student achievement and graduation rates as well as give students other options to pursue a postsecondary education?

The secondary research questions for this study were:

1. In what ways do guidance counselors at the school under study identify eligible students for the Career Pathways CTE program?
2. What difficulties if any, guidance counselors at the school under study encounter associated with recruitment and retention of students in the Career Pathways CTE program?

Career and Technical Education programs, formerly known as vocational education programs, received a bad reputation concerning student achievement. Educators initially created the programs to assist for lower-achieving and non-college-bound students with hopes of gaining employment after high school since they were not academically prepared to go to college. Now with the need for students to sustain a viable career after high school and college, CTE programs are integrated into high school curriculums, so students who are participants of these programs have the option to work after high school and transition into postsecondary educational programs to pursue a two-year or four-year college degree.

Conclusion

Career and Technical Education was thought of throughout history as a dumping ground by educators and some parents alike for low-performing students with no future for advancement or success (Jordan et al., 2016). Despite several challenges and criticism associated with promoting its value, leaders at the school under study had to find an alternative method to raise student achievement and graduation rates. They chose CTE to accomplish their district's goals, raise student achievement, increase graduation rates, create a pathway for post-secondary enrollment and produce highly skilled graduates.

Chapter Two: Review of the Literature

My literature review begins with a historical overview to illustrate how the federal government has become increasingly involved in the education of our nation's students, especially in vocational education, and how these historical events have affected current federal policies. As part of my literature review, I discussed research on the history of CTE, the perception of CTE by constructivists, CTE, and how it affected student performance. I also discussed the effectiveness of CTE programs, how they improved student achievement, and how integrating CTE with 21st Century Learning better prepares students for college, careers, and life readiness.

I reviewed over 20 peer-reviewed articles utilizing educational databases, including Elton B. Stephens Company (EBSCO) and Educational Research Information Center (ERIC), related to the effectiveness or ineffectiveness of career and technical programs when it comes to student achievement. CTE has been an essential part of secondary education in the United States for over a century. Many authors agreed that incorporating core academic knowledge and skills allows high school students to pursue employment or a college degree after graduation. For example, Hawley and Kim (2006) and Advance CTE (2013) agreed the primary goal of CTE is to assist the future career development of high school students through the exploration to facilitate the initial entry into employment and college. Still, a strong Career and Technical Education (CTE) program is crucial to ensuring that the United States takes the lead in global competitiveness by preparing students for success in higher education and careers.

History of CTE

The vocational education system in America began with apprenticeship agreements during colonial times (Gordon & Schultz, 2020). Apprenticeships are the oldest known form of vocational education in the United States, developed to assist with the training of the growing population of orphans, delinquents, and indigents that plagued the colonies because of many casualties of the Revolutionary War. In the war of Independence, hundreds and thousands of enslaved blacks won their freedom. The Revolution resulted in many emancipated enslaved blacks while others fled and freed themselves (Digital History, 2021). However, many of the enslaved African Americans who escaped did not read or write. Because of slavery, according to Anderson (2007), 90% of White males and females were literate, and 90% of all Black Americans were illiterate, a stark contrast to White Americans in the early 1800s.

After the Revolutionary period ended and the Civil War began, Congress signed the Morrill Act in 1862 (Gordon & Schultz, 2020). The Morrill Act allocated public land to agriculturally based colleges to expand and allow students an opportunity to pursue an education. The Thirteenth Amendment, added to the U.S. Constitution in 1865, abolished slavery (Library of Congress, 2022). As a result, formerly southern enslaved African Americans who were once sharecroppers were given land and received vocational training provided through donations from white philanthropists such as Andrew Carnegie. According to the Smithsonian's National Museum of African American History and Culture (2022), when Andrew Carnegie remarked, "We cannot afford to lose the Negro and We have urgent need of all and more [Black laborers]. Let us, therefore, turn our efforts to making the best of him," his only motive was to preserve the supply

chain of cotton grown primarily by the Black farmer. Many Northern states embraced the new legislation that enabled the North to move toward building industries and factories, which allowed businesses to train many Blacks that had migrated from the south to escape slavery. The passing of the Thirteenth Amendment was one of the pivotal points in the birth of vocational training for formerly enslaved African Americans.

As formerly enslaved African Americans and free persons migrated from the south, segregation laws such as Jim Crow enforced educational inequality among whites and blacks, which helped to create a literacy gap (Anderson, 2004 & NAEYC, 2018). Reardon et al. (2018) pointed out that racial and socioeconomic inequality and segregation patterns lead to achievement gaps based on a parent's level of education. As the Civil War ended, the land-grant college system expanded. The first Morrill Act funds allocated to all grant colleges went exclusively to all-white schools, so the second Morrill Act of 1890 required states of all-white and non-white colleges to provide land grants to all colleges. The second Morrill Act of 1890 gave land grants to non-white educational institutions, resulting in at least nineteen Historically Black College Universities (HBCUs) constructed to educate and train Blacks, poor Whites, and other minorities in the field of Agriculture and Engineering. The National Center for Education Statistics (2014) reported Cheney University in Pennsylvania (established in 1837) and Wilberforce University, and the parent-school of the Central State University of Ohio (established in 1856) were the first two HCBUs that directly benefited from the Morrill Act of 1890.

After issuing land grants to public college institutions, more Black Americans became educated, thus sparking the need for more training to aid in the nation's

economic job growth. In 1917, the Smith-Hughes Act initiated the first funding for career and technical education, formerly known as vocational education (Moore, 2017). Over 65 years, the Smith-Hughes Act had four modifications in 1947, 1958, 1963, and 1968 meant to help prepare youth and adults for the world of work. With each revision, federal funding for career and technical education increased. Educators created more programs to improve training in agriculture, math, trades, home economics, and teacher training; the later modifications of the Smith-Hughes Act included technical occupations related to national defense (Gordon & Schultz, 2020).

As a result of wars that ushered in the industrial revolution, economic change was required (Gordon & Schultz, 2020, pp. 9-14). In 1962, Congress passed the Manpower Development Training Act, which assisted poor, dislocated, and underemployed workers with vocational training and employment (Gordon & Schultz, 2020). With the unfulfilled promise of the Civil Rights Act of 1964, which prohibited discrimination on the basis of sex, race, and national origin, hiring, promoting, and firing prompted civil unrest, Ali et al. (2009) confirmed, “The Civil Rights Act of 1964 and 1965 and the 14th Amendment did little to provide economic opportunities for disadvantaged blacks, or professionals. The disenfranchisement of black city residents accelerated as manufacturing industries collapsed, and whites fled to the suburbs...from 1964 to 1972, hundreds of urban rebellions erupted, leaving 250 deaths, 10,000 serious injuries, and over 60,000 arrests” (para. 3). Even with the passing of the Civil Rights Act, the labor force did not adequately rebound from the economic and social change until Congress passed the Charles D. Perkins Vocational Act of 1984, 1990, 1998, and 2006. Several policy changes have occurred regarding CTE since then.

The purpose of the Perkins Act was to address concerns about insufficient skills training and diluted academics while retaining the potential of vocational education to make learning active, practical, exploratory, and competitive. By integrating vocational and academic education, students gained strong basic and advanced skills in a vocational setting. Students also gained experience understanding all aspects of the industry they prepared to enter. The Association for Career & Technical Education (2002) and Saeger (2017) agreed that the expanded Charles D. Perkins Acts provided modernization and program improvement in vocational education and addressed the rights and protection of students who were members of special populations. Special populations included:

- individuals with disabilities;
- individuals from economically disadvantaged families,
- including foster children;
- single parents, including pregnant women;
- displaced homemakers;
- individuals preparing for nontraditional training and employment; and
- individuals with other barriers to academic achievement barriers, including those with limited proficiency.

The Strengthening Career and Technical Education for the 21st Century Act, signed into law in 2018, updated the Carl D. Perkins V (Career and Technical Education Act). State and local authorities gained more authority under this policy by revising practices related to accountability and transparency in CTE programs. As a result, middle, secondary, and two-year college-level programs received \$1.3 billion in funding (Dumford & Fletcher, 2021). Blanchet (2020) concluded there might be more impact on policy decisions if

evidence about life skills offered through CTE programs and their alignment with local needs was available, along with more research on the political dynamic of the implementation of the CTE policy.

CTE in Schools Today

In 2018, the United States' 45th President signed The Strengthening Career and Technical Education for the 21st Century Act, which was the reauthorization of the Perkins V Act. Critical changes in the Perkins V Act included new program quality indicators, emphasis on programs of study, and a Comprehensive Local Needs Assessment (CLNA) requirement (Advance CTE, 2022, p. 1). According to Advance CTE (2022), the CLNA supports data-driven decisions and aligns planning, spending, and accountability activities under Perkins V, so local priorities are more clearly defined (p. 1). A key objective of the CLNA is to significantly involve CTE stakeholders to create educational and workforce-integrated systems and to reinforce high-quality Career and Technical Education (CTE) to prepare students for lifelong career success. In addition, officials in each state and school district across the United States must assess their local labor market needs every two years.

Constructivist Perspective on CTE

According to Gordon and Schultz (2020), several vital leaders aided in the birth of career and technical education development, formerly known as “vocational training.” One key leader was Booker T. Washington, who felt learning happened by doing. Holt and Kysilka (2006) acknowledged that Jerome Bruner was another Constructivist who predated John Dewey and believed in Constructivism. He practiced and helped form the theoretical framework and believed learners construct new ideas or concepts from past

and current knowledge as part of an active learning process. John Dewey was also a well-known Constructivist who thought students learned due to a student's engagement in their learning, or "learning by doing." Looking through the lens of Shubert's Four Curriculum Perspectives (1996), career and technical education can be utilized by students from the social behaviorist perspective because that perspective on learning focuses on how education helps develop skills, knowledge, behavior, and attitudes that students can use to be successful contributing adults in society.

Researchers have done many studies concerning the Constructivist Theory and how this theory focuses on the idea that students learn from their own experiences. Doolittle and Camp (1999) believed the role of educators is very different compared to other educational theories. They felt teachers should use guided instruction and not rely on rote learning, which involves students regurgitating information and does not make a real-life connection. Doolittle and Camp (1999) also stated,

"By creating environments that stimulate real job opportunities or life experiences, students can learn how to apply the concepts they have already learned to complete real-life tasks. By incorporating real-life situations into career and technical education, the students can see how what they are learning is relevant to their life goals." (p. 43).

CTE and Student Performance

The National Commission on Excellence in Education (1983) explored the poor performance of American students on standardized test scores and inadequate skills and abilities in job performance of graduates entering the workforce through the publication, *A Nation at Risk*. This publication brought a wave of reform to the U.S. educational

system to address the declining global competitiveness in the worldwide marketplace that recent graduates lacked. As a result, the Carl D. Perkins Vocational Acts of 1984, 1990, and 2006 passed by policymakers revitalized vocational education, strengthened students' educational attainment, and prepared them for success in the workforce after high school. The policymakers also changed the name of vocational education to career and technical Education (CTE) to address the policy change.

After the authors of the publication of *A Nation at Risk* (U.S. Commission on Excellence in Education, 1983) addressed the speculation that the American educational system produced graduates with mediocre knowledge and skills based on the poor performance of American students on standardized tests, there was a dire need for the nation to revamp its educational system to become competitive in the international and global marketplace. With the high demand for skilled workers and the need for displaced workers to find work, the time it took to acquire valuable employability skills needed to meet employers' demands were imperative. Because Career and Technical Education (CTE) programs last four months to two years, they meet the time constraints of the displaced worker while maintaining the academic instruction, knowledge, and skills required for students to be "workforce ready." Dixon et al. (2002) researched that nearly half (46%) of all employers reported difficulty in hiring qualified workers in 2001, and close to a third (29%) believe they will have trouble in hiring in future years. Vocational education legislature and policy now encourage high school students to continue their students at the postsecondary level and two-year postsecondary students to pursue 4-year credentials through various "tech-prep" and articulation agreements which help students

develop strong academic and occupational skills for greater flexibility and adaptability in the workforce (Levesque et al., 2000).

CTE and Improving Student Achievement

Deluca et al. (2008) conducted a study that discussed the possible links between CTE, low student achievement and dropping out. Their study showed a minute number of students that participated in the studies dropped out of high school due to factors such as the age of students entering a CTE program, interest, ethnicity, and socioeconomic status (SES). They discovered contributing factors that can account for the belief that CTE courses may cause a small number of students to drop out of school, depending upon the student's interest, ethnicity, socioeconomic status (SES), and age. Overall, the studies concluded a positive relationship and correlation between increasing student achievement and reducing dropout rates and CTE. The article suggested that students, who started high school at 14 years old and took one CTE course every two academic courses, are at a lower risk of dropping out of school. Cognitive engagement is maximized for students when CTE and core academics are experienced together (Deluca et al., 2008).

The dropout rate of American students started to increase over two decades ago. This increase reached an insurmountable number among the low-income and minority students that caught the attention of the national agenda to improve the public education systems by adopting a rigorous curriculum, school accountability, academic achievement, and dropout prevention strategies while keeping students engaged in learning.

Researchers Orthner et al. (2010) reported that many social, psychological, and disengaged behavioral students from school lead to students dropping out of school as early as middle school. Although four-year graduation rates for all students were at 73%,

rates for minority students, including African American and Hispanic students, were still low at the rate of 55% and 53%. That is why students exposed to career exploration with a hands-on application of knowledge learned to see the relevancy and value of education and the workplace. As a result, academic achievement and graduation rates increased when students were more engaged in learning.

According to Antinluoma et al. (2021), Professional Learning Communities (PLCs) have become widely recognized as key strategies for improving student achievement and school development (p. 1). Watson (2014) and Turner et al. (2018) agreed that professional development is essential for teachers to improve student learning outcomes and expand teachers' knowledge. With teachers having more time to teach, there needs to be more time for teachers to collaborate to strategize a plan to include different teaching techniques to impact all students across the learning spectrum. The current allotted time for collaboration at the school under study is 45 minutes twice a week in school. The allotted time seems normal, but there is a problem with meaningful content being relevant to the goals and vision of the school among teachers, which, consequently, jeopardizes students' academic performance. For the school under study to have a successful PLC, Dufour et al. (2008) outlined six characteristics: maintaining a shared mission, vision, values, and goals, constructing a collaborative culture, taking part in collective inquiry, being action-oriented, committed to continuous learning and improvement, and being driven by results. All teachers need to work as a team and constantly strive to improve student learning to raise students' academic performance.

Effectiveness of CTE programs

Educators have long debated Career and Technical Education (CTE) and its effectiveness, but there are commonly accepted goals in its encouragement to foster career development or initial entry into college. In addition, researchers have found some correlations between CTE and student achievement. Still, to maximize the effectiveness of CTE, local educational agencies (LEAs) can use 15 strategies (National Dropout Prevention Center Network, 2015) to enhance its efficacy which involves early interventions, such as getting families involved in students learning process, creating Reading/Writing programs, and enforce early childhood education. Basic core strategies involving mentoring or tutoring services, service learning, alternative schooling, and out-of-school experiences (internships) all aid in experiential learning. Another technique used is making the most of instruction by providing staff professional development, teachers integrating learning styles/multiple intelligence, individualized instruction for students, and incorporating technology in the classroom. For the strategies to be effective for LEAs that offer career and technical programs, the school community needs to be widened and allow stakeholders to be more involved through community collaboration and awareness of career education and workforce readiness (National Dropout Prevention Center, 2002).

In 2015, the Southern Regional Board (SREB) conducted a study regarding raising student achievement, graduation rates, and classroom practices using the High Schools That Work (HSTW) practices and framework (SREB, 2015). The HSTW was initially introduced to Fred J. Page High School (PHS) in Franklin, Tennessee, in 2003 because the staff at PHS realized students were not academically stimulated. The staff

also needed to promote achievement and engage student learning because most students were slipping through the cracks. Although a few students were academically sound and made notable accomplishments after graduation, overall student achievement was deemed mediocre. After making strides toward improvement, the staff of PHS became relaxed and had a lackadaisical attitude toward student learning, which made them need improvement.

In the Aldine Independent School District in 2001 had the same lackadaisical attitude and faced the same issues of restructuring their school system (Childress et al., 2005). In 2003, the SREB (2015) reported that the new principal at PHS realized the misalignment of the mathematical scores compared to the state exam landed the school on the targeted list for poor student performance. As a result, the principal turned the low math scores from 60 percent in 2002-2003 to 97 percent in 2003-2004 using the HSTW. These practices involved:

(1) High expectations – Motivate more students to meet high expectations; (2)

Program of study – required each student to complete an upgrade academic

core and an academic or career concentration; (3) Academic studies – teach

more students the essential concepts of the college-preparatory curriculum by

encouraging them to apply academic content and skills to real-world problems

and projects; (4) Career/technical studies – provide more students with access

to intellectually challenging career/technical studies in high demand fields that

emphasize the higher level mathematics, science, literacy and problem-solving

skills needed in the workplace and in future education; (5) Work-based

learning- enable students and their parents to choose from programs that

integrate challenging high school studies and work-based learning and are planned by educators, employers and students; (6) Teachers working together – provide cross-disciplinary teams of teachers with time to support to work together to help students succeed; (7) Student actively engaged – engage students in academic and career/technical classrooms in rigorous and challenging proficient-level assignments, using research-based instructional strategies and technology; (8) Guidance – involve students and their parents in a guidance and advisement system that develops positive relationships and ensures completion of an accelerated program of study with an academic or a career/technical concentration; (9) Extra Help – provide a structured system of extra help to assist students in completing accelerated programs of study with high-level academic and technical content; (10) Culture of continuous improvement – use student assessment and program evaluation data to continuously improve school culture, organization, management, curriculum and instruction to advance student learning. (SREB, 2015, pp. 1-10)

The Career Pathway CTE program at the school under study provided rigorous courses and relevant learning experiences to meet the needs of improving student achievement and the skills to meet the needs of future employers to hire well-educated employees that have advanced employability skills.

PHS's efforts to improve student learning successfully used the High School-To-Work practices and framework. According to the SREB (2015), PHS went from a “C” school in 2003 to an “A” school in 2012 and ranked in the top five in the state in three measured areas of algebra, English, and biology. The Southern Regional Education Board

(SREB) identified Page High School (PHS) as one of 16 High Schools That Work (HSTW) schools in the nation to receive a Platinum High Achievement Award. In addition, there has been a success in improving the graduation rate and attendance at PHS. Between 2004 and 2012, attendance improved from 92.8 percent to 94.9 percent, and graduation rates rose from 89.4 percent to 97 percent (SREB, 2015, pp.1-10). The Career Pathway CTE program at the school under study provides rigorous courses and relevant learning experiences to meet the needs of improving student achievement and the skills to meet the needs of future employers to hire well-educated employees with advanced employability skills, just like Page High School.

How to Build Enrollment in CTE Programs

Educators needed to answer another question: Can teachers and guidance counselors motivate and encourage students to participate in CTE programs during or after high school? Even after including a core curriculum to restructure vocational education to make it more competitive and appealing to college-bound students, there was still speculation among teachers, guidance counselors, and some students as to whether CTE prepares students to succeed in attaining a postsecondary certificate or degree. Adams (2014) stated counselors play a vital role in setting students' sights on higher education, particularly for students from low-income backgrounds. However, research shows that counselors are relatively untapped and undertrained resources for these efforts (p. 2). Hawley and Kim (2006) also noted, "Career counseling may facilitate guiding students toward CTE; however, current literature regarding career counseling shows no direct correlation between school counselors and CTE outcomes." This is important because guidance counselors are the gatekeepers to students'

aspirations and dreams to achieve greater because they are the primary source of information for college and career preparation (Kandalec Holm, 2019; Mobley et al., 2017). Even though the time students spend with guidance counselors includes discussions concerning course selection and student progress, there could be more discussions concerning technical education programs and career exploration, so students can have more options to pursue other than a traditional college education.

In 2006, Hawley and Kim completed a study to evaluate the relationship between the practices of high school career counselors and student participation in career and education programs. In the study results, they discovered high school guidance counselors are challenged to meet the demands of their time. Whether preparing and administering tests or keeping up with other administrative functions, it keeps them from devoting the necessary time to understanding the opportunities to make CTE programs available to students. Many students are not aware of all of the educational options because of limited resources in school guidance departments and guidance counselors' lack of knowledge about CTE programs.

When counseling students, most school guidance counselors concentrate on educating students about college admissions and financial aid. School counselors focus their efforts on getting students college-ready, and the employability skills needed to secure viable employment are not discussed. Career planning, occupational exploration, and employability skills were issues usually addressed in a career development class or seminar at the postsecondary level, where there was a plethora of information and literature supplied by vendors kept in a central location, such as a college career center that assist students with gaining employment after graduation. School districts can

encourage students to get involved in CTE programs by integrating career education into the curriculum and require teachers and guidance counselors to educate students on the benefits of career and technical education. According to Zunker (2006),

Career education is a systematic attempt to influence the career development of students and adults through various types of educational strategies, including occupational information; infusing career-related concepts into academic curriculum; taking field trips to businesses and industries; having guest speakers who represent various occupations to talk about their jobs; offering classes or workshops devoted to the studies of career internships and apprenticeships. (p. 7)

Some high schools employed college and career specialists who assisted counselors with the college preparedness process for students and also overseeing college and career centers. Still, just like most guidance counselors, these specialists were given the tasks to only push colleges to college-bound students and steer CTE programs to low-performing students, which is a travesty to all students who have the potential to learn to achieve greatness.

CTE and 21st-Century Skills

The field of career and technical education (CTE) has undoubtedly experienced a superfluity of changes over the decades. Historically, CTE programs were considered viable options, particularly for low achieving or failing students of low SES backgrounds. However, as the world converged into a global marketplace, federal legislature greatly influenced the education field, spurring the need for highly technical and skilled employees to meet the demands of a growing global economy. By integrating 21st Century Learning, which allows students to learn essential skills, such as critical

thinking, problem-solving, communication, and collaboration with career and technical education, students will be more prepared to compete and succeed in today's world.

Levesque et al. (2000) stated, "With the expansion and advancement of information technology within the U.S. economy, major industrialized economies are becoming "knowledge-based," where creation, distribution and the use of information technology and human capital are becoming increasingly important" (p. 20). Levesque et al. (2000) also reported that with the decline of the manufacturing economy shifting to a service-based economy, many employers required their employees to have critical thinking skills, problem-solving, and social skills to cope with the influx of information technology knowledge needed to compete with international trade. This requirement mirrored the 21st Century Skills Framework that Wagner (2008) suggested all students must possess to be successful contributing United States citizens.

Conclusion

Alexitech et al. (2004) reported that students felt they were inadequately prepared for higher education, and employers did not believe that high schools taught students relevant skills needed to perform adequately in the workplace. Students cannot connect coursework to real life, thus advocating the need for career and technical education in high schools, which can bridge the gap. The assistance of teachers and guidance counselors who are certified and licensed professionals that deliver comprehensive programs that encourage students' academic, career, personal, and social development can be beneficial to student success. Subsequently, more students may graduate from high school prepared to complete postsecondary education and gain employability skills to compete in the international global marketplace.

Chapter Three: Methodology

In this chapter, I detailed my study's methodology and research design. Then, I identified the participant's data collection and data analysis. Finally, I concluded by discussing the ethical considerations and limitations of the study.

Research Design Overview

The purpose of my study was to examine the Career Pathway Career and Technical Education (CTE) programs at the school under study to evaluate their effectiveness in increasing student achievement, reducing dropout rates, and allowing students to seek another avenue to obtain a high school diploma with the completion of an industry certificate to use towards employability and or pursue postsecondary admissions.

Patton (2008, pp. 113-114) stated,

A judgment-oriented evaluation approach includes summative evaluations aimed at deciding if a program is sufficiently effective to be continued or replicated and comparative ratings or rankings of programs as done by *Consumer Reports*. These judgments are used to inform decisions.

I used a mixed methods approach to evaluate the effectiveness of the Career Pathway CTE program. I chose to include this school in this study because it was the first school to execute a pilot Career Pathways program in the district. The goal of the CTE program was to provide students with other educational opportunities after graduating high school, raise student achievement, and improve graduation rates.

Participants

Eight guidance counselors, two administrators, one career pathways coordinator (CTE advisor), and 125 teachers were eligible to participate in this evaluation. I chose them because they had access to students' academic records, CTE participant information, program and industry certification completion, and student career interests as the key personnel. I chose each participant by the amount of contact and the role each participant had in the student's academic success. Officials placed these participants in these positions because of their knowledge and expertise in their prospective career fields. They guide students to make informed decisions for life during and after high school.

Data Gathering Techniques

I implemented a mixed methods research design. First, I collected qualitative and quantitative data to evaluate the Career Pathways CTE program's effectiveness according to instructional staff and administrators to raise student achievement, decrease graduation dropout rates, and increase graduation rates. Second, I developed a survey and interview questions that gathered qualitative data from key personnel.

Surveys

I provided a Likert scale-type survey to administrators, teachers, and guidance counselors at the school under study to collect information concerning their knowledge about CTE programs and how beneficial they were in helping raise student achievement, increase graduation rates, and postsecondary attainment (See Appendix A). I provided each participant with two copies of the same Adult Survey Consent Form via their employee mailbox. In the Survey Consent Form, I instructed the participants to place a

signed consent form in a locked box at the end of the table in front of the employee mailboxes; the participant kept the other survey consent for their records. If they agreed to the survey, I instructed them to place the completed survey in the locked box on the table in front of the employee mailboxes. Out of the two administrators, 125 teachers, eight guidance counselors, and one career pathways coordinator (CTE advisor), nine teachers, five guidance counselors, one administrator, and one career pathways coordinator agreed to participate in the survey for a total of 16 participants.

Interviews

For the last question on the survey, I asked participants to respond if they were willing to participate in an interview. Five participants agreed to participate in an interview. Those participants were three guidance counselors and two teachers.

Through the individual interviews, I gained more information by providing the interviewee's open-ended questions concerning the promotion of CTE programs and program offerings at the school under study, their personal experience with CTE, funding resources, and data collection. I read a statement of confidentiality to each respondent before beginning the interview. I obtained the respondent's permission to record the conversation. The interviews ranged from 20 to 30 minutes, depending upon how much knowledge the respondent had concerning CTE programs (see Appendix B for a copy of the interview questions). I tape-recorded each interview, labeled it with a letter, and placed it in a secure area.

Data Analysis Techniques

I analyzed the data using an open-ended survey that included seven questions. In the survey, I asked participants questions that identified their knowledge of the CTE

Pathways program at the high school under study, if the CTE program was promoted and offered to all students, and most significantly, if the Career Pathways programs raised student achievement, provided students employability skills after high school, and if the programs provided students the ability to pursue post-secondary education. I used interview questions as a qualitative tool for the five participants, including three guidance counselors and two teachers. The purpose of these initial questions was for the participants to share their knowledge and experiences concerning CTE. I wrote the questions to identify each participant's perception of CTE's effectiveness in improving graduation rates, raising student achievement, and providing students with real-world skills and other educational opportunities beyond high school. Each survey and interview question I obtained from one administrator, nine teachers, five guidance counselors, and one Career Pathways coordinator totaling 16 participants, was analyzed using the themes I gathered from the qualitative information obtained. From the qualitative data obtained, I completed a narrative summarization summarizing the key points using interview notes and aided by an audio review of the tape. In addition, I identified themes or topics of the conversation and coded and entered a journal.

Ethical Considerations

With the utmost regard for ethics and confidentiality, I made all efforts to implement this project with ethical considerations to its participants, the National Louis University Institutional Research Review Board's IRB Criteria for Ethical Research (2022). Furthermore, I upheld and abided by the American Educational Research Association's (2022) principles and standards, including professional competence,

integrity, scholarly responsibility, respect for people's rights, and avoiding all harm to participants for the entire duration of this research project.

I obtained approval to conduct research in the school district. I received an informed letter of consent from each participant involved in the survey and interview process. I issued pseudonyms for the participants who completed the survey and interviews, which assisted in upholding the confidentiality and privacy of all participants. I placed them in a locked box in my home. I kept the digitized data on a non-networked password-protected computer that was only accessible to me. I did this because it was essential to protect the participants' privacy so they felt comfortable during the interview or survey process.

Limitations

This study had various limitations. The first limitation was the study size, which only included one high school in one school district. The program was new to the school under study, which made it challenging to gather specific data needed to complete my study effectively. The Career Pathways coordinator was new to the position and did not have adequate record-keeping or organized data concerning the number of students enrolled in the Career Pathways program who completed an industry certificate. Another limitation of this study was the timing of the distribution of the survey and the interview requests, which may have contributed to the low participation because the administrators, teachers, guidance counselors, and the CTE coordinator of the high school under study were preparing for district and state-wide testing. Had these circumstances not occurred, the study's results may have been more exact.

Conclusion

In this chapter, I discussed the methodology used to collect qualitative and quantitative data. With interest in advocating for student achievement and the hope that all students receive a quality and equitable education, I evaluated the effectiveness of the Career Pathways CTE program at the school under study to determine if the program was meeting the objectives of raising student achievement, increasing graduation rates, and giving students other educational opportunities to complete high school to pursue a postsecondary industry certificate or degree.

Chapter Four: Results

The purpose of my study was to assess the effectiveness of the Career Pathways Career and Technical Education (CTE) program at one high school for its intended uses: raising student achievement, improving graduation rates, and giving students other options when pursuing postsecondary education. I collected both qualitative and quantitative data. I gathered data on the effectiveness of the CTE program using surveys and interviews completed by two administrators, nine teachers, five guidance counselors, and one CTE coordinator.

Findings

I collected quantitative and qualitative data through survey and interview questions completed by the administrators, teachers, and guidance counselors. In this section, I review data from survey questions and interviews that involved administrators, teachers, guidance counselors, and staff who gave their perceptions of the effectiveness of the Career Pathways CTE program at the high school under study. From the analysis of the surveys and interview questions, I captured emergent themes or patterns to better understand the participant's perceptions of the purpose of the Career Pathways CTE program.

Surveys

I provided a survey to two administrators, 125 teachers, eight guidance counselors, and one career technical education (CTE) advisor. Of the surveys, one administrator, nine teachers, five guidance counselors, and one (CTE) advisor returned a survey with a completion rate of 12%. The survey contained twelve questions, using a

Likert scale that ranked individual answers ranging from strongly agree, agree, disagree, strongly disagree, neutral, and no response.

I asked participants in survey Item #1 to respond to the following prompt: *College Bound students should take career and technical education courses*. In the responses to Item #1, 18% strongly agreed, 43% agreed that college-bound students should take career and technical education courses, no one disagreed, 13% strongly disagreed, remained neutral, or did not respond. From these data, most of the stakeholders felt all college-bound students should take CTE courses as well as traditional academic courses. St. Gean (2010) suggested that CTE students understand what is needed to succeed in the real world of work and complete a postsecondary degree because they already have a career plan. Also, upon completing their chosen career and technical program, students will have gained experiential skills and knowledge they can utilize immediately upon hire. In the past, only students who were failing or students with disabilities were encouraged to enroll in CTE programs. The purpose of offering CTE programs at the school under study was to give students alternative options to graduate from high school, raise academic achievement, and gain real-world experience in a career field that can be utilized upon graduation or transfer credits to complete a postsecondary degree. Based on survey question #1 responses, most stakeholders in the program under study believed any student who wants to pursue post-secondary education should take career and technical courses. (Table 1)

Table 1.*College Bound Students Should Take Career and Technical Education Courses*

Response	Frequency	Percentage
Strongly Agree	3	18%
Agree	7	43%
Disagree	0	0%
Strongly Disagree	2	13%
Neutral	2	13%
No Response	2	13%

In Survey Item #2, I asked stakeholders to respond to the following prompt: *Career and technical programs are beneficial to students to gain employability skills.* In the participant responses to Item #2, 56% strongly agreed, 25% agreed, none of the participants disagreed or strongly disagreed, and 6% were neutral concerning students gaining employability. There were 13% of the participants did not respond. According to the Association for Career and Technical Education (ACTE, 2007), CTE programs benefit students to gain employability skills and obtain an Industry Certificate, which can jump-start a student to entry-level employment through hands-on job experiences. The responses to Item #2 demonstrated that most stakeholders felt career and technical programs benefit students to gain employability. (Table 2)

Table 2.

Career and Technical Programs are Beneficial to Students to Gain Employability Skills

Response	Frequency	Percentage
Strongly Agree	9	56%
Agree	4	25%
Disagree	0	0%
Strongly Disagree	0	0%
Neutral	1	6%
No Response	2	13%

In Survey Item #3, I asked stakeholders to respond to the following prompt: *The Career Pathways program addresses the needs of the students' ability to continue an education at the postsecondary level.* From the responses to question #3, 37% strongly agreed, and 37% agreed. None of the participants disagreed nor strongly disagreed; 13% of the stakeholders felt neutral or did not respond to question #3. Career and Technical programs create and provide students with a more straightforward pathway to obtain their career goals based on the coursework of their CTE program. After completing the program, the students can immediately enter the workforce with the earned industry certification or transfer the credits to a community college academic program (Hyslop & Imperatore, 2013, pp. 16-19). When CTE students enroll in a postsecondary degree program at a community college immediately after high school, they better understand how college courses related to their career goals. (Table 3)

Table 3.

The Career Pathways Program Addresses the Needs of Students' Ability to Continue Education at the Postsecondary Level

Response	Frequency	Percentage
Strongly Agree	6	37%
Agree	6	37%
Disagree	0	0%
Strongly Disagree	0	0%
Neutral	2	13%
No Response	2	13%

In Survey Item #4. I asked stakeholders to respond to the following prompt: *Students who are enrolled in the Career Pathways program are less academically prepared compared to other students not enrolled in a career and technical program.* In the responses to question #4, 0% strongly agreed, 13% agreed, 31% of the stakeholders disagreed, 31% strongly disagreed, 6% were neutral, and 19% did not respond. In February, the National Association of State Directors of Career Technical Education (NASDCTEC, 2017) reported “Students enrolled in Career Technical Education (CTE) are increasingly high performers, with higher-than-average graduation rates and impressive postsecondary enrollment rates” (para. 1).

Before CTE students at the high school under study are allowed to enroll in a career and technical education program, they must have a GPA score of 2.8, which may

ensure the probability of program completion (citation withheld to protect confidentiality). (Table 4)

Table 4

Students Who are Enrolled in the Career Pathways Program Are Less Academically Prepared Compared to Other Students Not Enrolled in a Career and Technical Program.

Response	Frequency	Percentage
Strongly Agree	0	0%
Agree	2	13%
Disagree	5	31%
Strongly Disagree	5	31%
Neutral	1	6%
No Response	3	19%

In Survey item #5, I asked stakeholders to respond to the following prompt: *Career and technical courses are beneficial to high achievers.* In the responses to question #5, 31% of the stakeholders strongly agreed, 50% agreed, 6% disagreed, 0 % strongly disagreed or were neutral, and 13% had no response. Research has shown that CTE courses benefit both low achievers and high achievers. Camp and Johnson (2005) noted,

...CTE programs are becoming more academically rigorous and less directly tied to single occupations. CTE is no longer just a training program for workers; today CTE also prepares students for postsecondary work including college as well as lifelong learning (pp. 55-56).

The Career Pathways programs at the school under study allowed all students to enroll in CTE courses as required electives. It does not matter if the student is a high achiever; every student has a chance to experiment with choosing a career path. The benefit of students taking a CTE course as an elective is being able to apply academic theory to real-world experiences. (Table 5)

Table 5

Career and Technical Courses are Beneficial to High Achievers

Response	Frequency	Percentage
Strongly Agree	5	31%
Agree	8	50%
Disagree	1	6%
Strongly Disagree	0	0%
Neutral	0	0%
No Response	2	13%

From the administrator and instructional staff responses to survey Item #6 concerning the Career pathways (CTE) program helping raise student achievement, 38% strongly agreed, 43% agreed, 6 % disagreed, 0 % strongly disagreed or were neutral, and 13% stakeholders had no response. According to the National Association of State Directors of Career and Technical Education Consortium (NASDCTEC) (2017), students who are enrolled and are engaged in a CTE program are more likely to achieve higher in academic subjects, such as English. To enroll in the Career Pathways (CTE) program at the high school under study, the student had to score a level 3 or above on the English-

Language Arts section of the State Standards Assessment (citation withheld to protect confidentiality). (Table 6)

Table 6

The Career Pathways (CTE) Program Helps Raise Student Achievement.

Response	Frequency	Percentage
Strongly Agree	6	38%
Agree	7	43%
Disagree	1	6%
Strongly Disagree	0	0%
Neutral	0	0%
No Response	2	13%

In survey Item #7, I asked stakeholders to respond to the following prompt: *The Career Pathways (CTE) program is a viable and comprehensive program that helps students smoothly transition into an accredited post-secondary program.* Just as in their responses to items 3-6, the stakeholders agreed that Career and Technical programs are viable and beneficial to increase student achievement and employability skills with the ability to transition from high school to an accredited postsecondary program successfully. In their responses, 31% of stakeholders strongly agreed, 37% agreed, and 13% disagreed. No stakeholders strongly disagreed, 6% were neutral, and 13% gave no response. Association of Career and Technical Education (2007) expressed how important CTE programs are in preparing students for graduating from high school to pursue a postsecondary accredited program that will increase their probability of

employment and socioeconomic status. Of 230 students enrolled in the Career Pathways CTE programs, all graduated from high school, pursued a postsecondary education degree, or sought employment. (Table 7)

Table 7

The Career Pathways (CTE) Program is a Viable and Comprehensive Program That Helps Students Smoothly Transition into an Accredited Post-Secondary Program.

Response	Frequency	Percentage
Strongly Agree	5	31%
Agree	6	37%
Disagree	2	13%
Strongly Disagree	0	0%
Neutral	1	6%
No Response	2	13%

Interviews

Of participants returning surveys, only three guidance counselors and two teachers agreed to interviews, a 31% completion rate. The questions I asked were open-ended and written to gain the participant's perceptions and ideas about the Career Pathways Program's effectiveness at the school under study. First, I will share the direct responses of each participant, and then I will reveal the themes.

Guidance Counselors Interviews. I invited nine guidance counselors to participate in an individual interview, which lasted no longer than 30 minutes. Unfortunately, only three volunteered to participate, and those who volunteered were

assigned letters to identify themselves. The first question I asked was: Please provide me some information about your role as a leader:

What is your role in the school or district?

- a. What teaching and or leadership experiences provided you with the qualifications to assume this role?
- b. What is your perception of the importance of the Career Pathways program and career and technical education?

Participant A stated:

I am a guidance counselor here at High School A. I've been a guidance counselor for over 15 years, starting as a middle counselor first and now I'm here. I graduated from a Historically Black College University (HBCU), where I received a Bachelor's in Psychology and a Master's degree in School Counseling. The perceptions I have about the Career Pathways program here at the school under study are very positive. I believe that every student should be exposed to some kind of CTE program or course. I've seen many students in the past who have graduated from high school and then completed college, who were excellent students come back to visit and haven't secured their dream job. If they had participated in a CTE program, they would have known early on which career field to choose and gained real-world experiences to decide if that was the career path they should've taken.

Participant B stated:

I am a guidance counselor, and I received my bachelor's degree from a local public university in the field of education. I taught for three years and then went

back to college for a while and completed a Master's in School Counseling. My perceptions concerning the Career Pathways program or career and technical education are mixed. I believe it is great for those who want to graduate from high school and then go straight to work. I feel students who are college-ready should go straight to college and then take electives to discover what career path they should take; it can become costly, but at least they will have more options to explore instead of pursuing a field that they may not even like.

Participant C stated:

I've been a guidance counselor for just a couple of years. I graduated from a local four-year college and pursued a Bachelor's in Social Work and a Master's degree in Family Counseling. I think the Career Pathways program is great for all students. I push all my students to take a couple of CTE courses to explore a career path. When I was in high school, I took vocational education courses in Early Childhood, which led me to become a social worker and then a guidance counselor. I enjoyed working with children, and I would've never known it if not for my CTE experience.

The second question I asked was: Can you tell me your knowledge and experience with career and technical education?

Participant A stated:

Personally, I have friends and colleagues who took the CTE route. They took CTE courses in high school, worked in a CTE field for a while, and then went to college and got a bachelor's degree, and now they're making more money than I am (laugh). For instance, my frat brother completed a CTE program in Electronics

and received his Bachelor's in Electrical Engineering and is making money in the six figures. I told my son to do the same thing, just to see if he likes working with computers. If so, go to college and get a degree in Computer Programming. I do know it is a great way to find out what you may want to pursue before wasting money in college by changing your major every semester. The high school pays for the CTE classes and certificate, so there is no loss of money.

Participant B stated:

I don't have that much experience. I know the program assists students who are failing to raise their achievement levels. Most of the students that I suggested CTE courses raise their grades and tell me that they like their CTE courses and plan to obtain the industry certificate to work right after high school.

Participant C stated:

As I said earlier, I was a product of a CTE program, and it helped me to gain knowledge of what I wanted to pursue as a career choice through hands-on training and internship. I know once a student completes a CTE program, they can get an industry certificate to work in that particular field, and or transfer the program's credits to a community college to complete an Associates of Science (A.S.) degree.

The third question I asked in the interviews was: From a historical perspective, tell me a little about (a) The role of CTE at your school, (b) the CTE clusters offered at your school, and (c) the CTE curricular teams at your school.

Participant A said:

As guidance counselors, we are to ensure everyone is on track to graduate from high school and pursue post-secondary education, military, or work. I know all students are offered CTE courses as electives in the lower grades, but as they become more mature and advance to the upper grades, we don't necessarily push CTE programs to the junior and seniors unless their grades are below average. I personally like for my students to finish their trade, get the certificate, and then pursue college and work. I feel CTE is a secondary option at (the school under study) when it shouldn't be. The courses that are offered are Science, Technical, Engineering, and Mathematical (STEM) programs. We also have Child Care and Multi-media, which one our largest program. We have a CTE advisor who recruits and advises students concerning the CTE program.

Participant B said:

CTE is offered to all students; that is the role. I feel it can be offered to all students, but if a student is a high achiever all efforts should be made towards preparing them for college instead of work. I don't know all the CTE programs by heart. I do know about the CTE programs, which I do refer some of my higher achievers to pursue. All of the other courses, I'm not sure about because we have a CTE advisor who takes care of everything CTE.

Participant C said:

The role of CTE here at (the school under study) is minimum. We are told to make sure the students are college-ready and anyone who needs an academic boost to enroll them in CTE courses, which is sad. I benefitted greatly from CTE programs. I was an above-average student and still wanted to pursue a career

pathway while was in high school. The STEM programs are excellent and so is the Culinary Arts program. I do know the multi-media program is the largest. The CTE advisor is the one who coordinates the curriculum with the assistance of the Dean of Instruction.

The fourth question I asked in the interview was: Are all of the teachers who teach a course for the Career Pathways program certified to teach in their designated program, and how many years of industry experience do they possess?

Participant A said:

I'm not sure how many years of experience in their designated field a CTE teacher would need to possess in order to teach CTE courses. I do know they should be certified because the CTE teachers teach at the county technical schools and the programs that are offered at the county technical schools have an articulation agreement with the local community colleges.

Participant B said:

I'm not sure how much experience a CTE teacher should possess or if they must be certified. I would guess they should be certified.

Participant C said:

Not sure about the years of experience, but I do know they must be certified. That's a district rule.

When I reflected on the participants' answers, no one knowing the experience of the CTE teachers was interesting because there should be communication and knowledge exchange among all teachers regardless of the subjects they teach. Serviss (2021) stated that in a professional learning community (PLC), teachers share ideas for improving their

teaching practices and creating environments where all students can reach their potential. PLCs are not limited to sharing ideas about best practices but are also a way for teachers to develop emotional and social bonds, build trust, and gain personal relationships. According to Portugal and Tayaba-Kim (2021), professional learning that caters to teachers' social and emotional needs helps create a more positive school culture (para.1). Thus, reiterating the importance of effective communication in professional learning communities to improve student learning and the overall culture in a school.

The fifth question I asked: What is the mission of the Career Pathways program, and how does it align with the mission of the district?

Participant A stated:

Career Pathways aligns with the district strategy plan by providing students with real-work experiences.

Participant B stated:

I believe the mission is to help students gain real work experiences that will allow students to go to work directly after high school completion. Part of the district's strategic map is to increase more CTE programs and certifications, so students have other alternatives to graduate.

Participant C stated:

Career Pathways' mission is to provide alternative ways to graduate from high school. Students can gain real-world experiences through hands-on training through apprenticeships and gain college credit. One of the district's goals is to prepare students for careers and college.

The sixth question I asked the participants was: What is the procedure to recruit, select and retain qualified CTE teachers?

Participant A said:

I'm not sure. I would assume it would be the same process that is used for all teachers who are hired. They would have to be certified in their field and obtained a teaching certificate.

Participant B said:

I'm not sure. I do know teachers get bonuses based upon their performance and that's how teachers are retained. As far as recruiting, I would guess it is the same process as regular teaching positions.

Participant C said:

I'm not sure. I guess it would be the same procedures for regular instructional teachers.

The seventh question I asked the participants was: What is the success rate of students completing the Academy of Multimedia program, and how many students complete an Industry Certificate that can be transferred to a postsecondary program?

Participant A stated:

I'm not sure on the success rate of the completions of the industry certificates, but I do know that every student enrolled in a Career Pathways program graduates from high school; so, for the graduation rate, is 100%. The industry certificate program completion, I'm not sure. The CTE advisor that we have doesn't know the exact number and that should be something she should know.

Participant B stated:

I know if the students are enrolled in a Career Pathways program, they usually graduate from high school, but I'm not sure about the number of industry certificate completers.

Participant C stated:

I know anyone who is enrolled in the Career Pathways program is on the path to graduating from high school. I'm not sure about how many students receive an industry certificate. The CTE advisor inputs that information, and I haven't seen the results.

Teacher Interviews. I invited 125 teachers to participate in an individual interview, which lasted no longer than 30 minutes. Only two teachers volunteered to participate, and I assigned letters to identify them. The first question I asked was: Please provide me some information about your role as a leader:

- a. What is your role in the school or district?
- b. What teaching and or leadership experiences provided you with the qualifications to assume this role?
- c. What is your perception of the importance of the Career Pathways program and career and technical education?

Participant D stated:

I am a Business Education Teacher that is part of the Career Pathways program here at High School A. I earned a Bachelor's and Master's degree in education from a local college. I worked in the business industry for 12 years before I completed my master's degree in Secondary Education. Before I began to teach, I had to earn a teaching certificate and I was certified in Business Administration. I

taught business classes at the local tech school for three years prior to now. I teach a CTE course so I highly recommend that all students should take CTE courses or complete an industry certificate. I feel it is important for students to get hands-on training before they decide to pick a career. If they don't want to receive training or take a CTE course, I always think it is best to volunteer before a career decision is made.

Participant E stated:

I'm a College-Readiness Reading teacher and I have a bachelor's degree in Reading Education. I have a teaching certificate and a Reading certificate that I have to renew every three years. My perception of the Career Pathways Program and CTE programs is very positive. I feel the Career Pathways program is very beneficial to all students and it doesn't matter if the student is college bound or headed to the workforce after graduating from high school. If a student gains real life experiences, then they are more likely to pursue that career, if they enjoyed the experience

The second question I asked was: Can you tell me your knowledge and experience with career and technical education?

Participant D stated:

I teach CTE courses, so I'm very knowledgeable and experienced in career and technical education. I know the students who take CTE courses seriously, really enjoy and benefit from the experience and have a clearer path of what to expect after high school.

Participant E stated:

Some of my students take CTE courses as an elective and I feel the courses are beneficial to the students, because the courses can fulfill graduation and scholarship requirements and it can help them will employability skills after high school.

The third question I asked: From a historical perspective, tell me a little about:

- a. The role of CTE at your school.
- b. The CTE clusters offered at your school.
- c. The CTE curricular teams at your school.

Participant D stated:

CTE just really started playing a big role in assisting all students with the graduation process and the pursuit of a postsecondary degree. In the past, students who may have needed career guidance due to failing academics or because of physical and mental disabilities took CTE courses. Now, CTE courses are taken by all students regardless of their academic level or capabilities because of the overhaul of Vocational Education. The clusters that are offered are STEM, Multi-media, Business Administration, Culinary Arts, and Health care programs. I'm part of the curricular team as a CTE teacher, there's a CTE advisor and the Dean of Curriculum is part of the CTE team.

Participant E stated:

The role of CTE is to provide other avenues for students to graduate from high school, raise academics and to give them other options to pursue a degree or certificate at the postsecondary level. I'm not sure on all of the clusters, but I am aware of the STEM, Multi-media, Culinary Arts, Business, and Cosmetology

programs. The curricular teams consist of a CTE advisor, a dean, and the CTE teachers.

The fourth question I asked: Are all the teachers who teach a course for the Career Pathways program certified to teach in their designated program and how many years of industry experience do they possess?

Participant D stated:

I believe at least two years of postsecondary education in the related field with a least one year of experience and will have to be certified in our designated career field.

Participant E stated:

I'm not sure how much experience a CTE teacher should have, but I know they have to be certified in the field that they are teaching.

The fifth question I asked: What is the mission of the Career Pathways program and how does it align with the mission of the district?

Participant D stated:

Career Pathways provide real-work experiences, which aligns with the district strategic plan. It also provides college and career readiness to lead students to success with the help from the community and parental involvement; even though we need more parental involvement.

Participant E stated:

The district's mission is aligned with the Career Pathways program because it helps all students to be successful before and after high graduation, because it

gives the students real-world or hands-on experience that is part of the district's strategic map.

The sixth question I asked: What is the procedure to recruit, select and retain qualified CTE teachers?

Participant D stated:

I'm not sure about how it is done for everyone, but for myself, I just applied for the position and was hired based on my credentials. They would have to be certified in their field and had obtained a teaching certificate. As far as retention of qualified teachers, we receive extra compensation based on our evaluation.

Participant E stated:

I'm not sure. I know teachers get bonuses based on their performance and that's how teachers are retained. As far as recruiting, I would guess it is the same process as regular teaching positions.

The seventh question I asked: What is the success rate of students completing the Academy of Multimedia program and how many students complete an Industry Certificate that can be transferred to a postsecondary program?

Participant D stated:

The success rate for the Career Pathways program students is usually 100% if they complete the program. Everyone doesn't receive an industry certificate because the student may have entered the program too late, dropped the program because they disliked it or do not pay for their rope fees. I know I had 5 out of the 230 students enrolled in the Career Pathways program receive an industry certificate.

Participant E said:

I know if a student is enrolled and finishes their program, they usually graduate because of the track (courses) they must follow. I'm not sure how many students earn an industry certificate.

Interview Observations

After weeks of repeatedly reviewing the audiotapes and analyzing the qualitative data, I made sure I paid close attention to the participant's responses and meticulously transcribed every word of each participant. I compared and organized the data using color codes of the emergent themes from the responses and perspectives of the respondents who took the survey and participated in the interview process. During the interview process, I observed that most participants were unsure of what the Career Pathways program truly had to offer based on their body language and gestures. The guidance counselor and the teacher participants had to gather their thoughts before answering the questions. Most of them raised their eyebrows and eyes upward before answering each question as if the answers to the questions were forced and not naturally known or not used in their thoughts or everyday conversations. One teacher (Participant D) and two guidance counselors (Participants A and C) were confident regarding the purpose of the Career Pathways program and CTE courses to raise student achievement, increase graduation rates, and give students alternative options to pursue a post-secondary education based upon their answers to the interview questions.

Emergent Themes and Sub Themes

Three major themes and three subthemes were emergent from the qualitative data I collected from interviews based on the participant's responses. The six major themes

included: 1.) Participant perceptions of advantages of CTE, 2.) Participant perceptions on disadvantages of CTE, 3.) Real-world experiences, 4.) student achievement, 5.) CTE teachers' credentials, and 6.) Industry certificates and completions.

Theme One: Guidance Counselors' and Teachers' Perceptions of Advantages of the Career Pathway Program

The first theme addressed perceptions of the advantages of the Career Pathways program and answered research question one: What is working well with the implementation of the Career pathways program raising student achievement and graduation rates? Each guidance counselor and teacher who participated in the survey and interview process agreed that the Career Pathways program helped to increase graduation rates because students cannot participate unless they are on the path to graduating from high school. In addition, some of the CTE courses taken can be used as a graduation requirement. Participant B stated, "Part of the district's strategic map is to increase CTE programs and certifications, so students have other alternatives to graduate." Participant C stated, "Career Pathways' mission is to provide alternative ways to graduate from high school." Participant E said, "The role of CTE is to provide other avenues for students to graduate from high school, raise academics, and give them other options to pursue a degree or certificate at the postsecondary level."

Theme Two: Guidance Counselors' and Teachers' Perceptions of the Disadvantages of Career Pathways

The second theme addressed of disadvantages of the Career Pathways program. The Career Pathways program was working well when it came to improving graduation rates and raising student achievement. However, Participants A, C, and D felt the

implementation of the Career Pathways program contradicted the true purpose of CTE because the program at the school under study was initially implemented to increase achievement and graduation rates for failing students.

Participant A stated: "... I know all students are offered CTE courses as electives in the lower grades, but as they become more mature and advance in the upper grades, we don't necessarily push CTE programs to the junior and seniors unless their grades are below average." Participant C stated: "...we are told to make sure the students are college ready and anyone who needs an academic boost, enroll them into CTE courses, which is sad."

Participant D said: "...in the past, students who may have needed career guidance due to failing academics or because of physical and mental disabilities took CTE courses."

Theme Three: Guidance Counselors' and Teachers' Perspectives on Real-World Experiences

Both guidance counselors and teachers indicated the Career Pathways Program allows students to gain real-world experiences, which can be beneficial to the students when seeking employment or a college major. Participant A said: "... if they had participated in a CTE program, they would have known early on which career field to choose and gain real-world experiences to decide if that was the career path they should've taken. Participant B said: "...I believe the mission is to help students gain real work experiences that will allow students to go to work directly after high school completion." Participant C said, "...I was a product of a CTE program, and it helped me to gain knowledge of what I wanted to pursue as a career choice through hands-on-

training and internship.” Participant D stated, “... I feel it is important for students to get hands-on training before they decide to pick a career.” Participant E stated, “...if a student gains real-life experiences, then they are more likely to pursue that career if they enjoyed the experience.

Theme Four: Guidance Counselors’ and Teachers’ Perspectives on Student

Achievement

The fourth theme that emerged was the ability of the Career Pathways Program to raise student achievement. The guidance counselors and teachers agreed that CTE Programs could play a significant role in student performance and achievement in academically working below average and boost their grades, which can lead to the completion of a high school diploma and a skilled trade. According to Deluca et al. (2008), a 2003 report from the National Assessment of Education suggested, “Combining academic courses with CTE courses can be a powerful experience for students, keeping them attached to the school and motivating them to complete their diplomas” (pp. 345-370).

Participant A stated, “... I know all students are offered CTE courses as electives in the lower grades...we don’t necessarily push CTE programs to the juniors or seniors unless their grades are below average.” Participant B stated, “...I know the program assists students who are failing to raise their achievement levels.” Participant C stated, “... I know if anyone who is enrolled in a Career Pathways program, they usually graduate from high school.” Participant D said, “... I know students who take CTE courses seriously, enjoy and benefit from the experience, and have a clearer path to what to expect after high school.” Finally, participant E stated, “... I feel the courses are

beneficial to the students because the courses can fulfill graduation and scholarship requirements.” The overall benefits identified by the participants were that the Career Pathways program offered to all students included highly skilled training and hands-on experience for students pursuing employment and postsecondary education to compete in the highly competitive global marketplace.

Theme Five: Guidance Counselors’ and Teachers’ Knowledge of CTE teacher’s Credentials

I derived theme five from the question concerning the credentials a CTE teacher would need to teach a CTE program. The guidance counselors and the teachers were unsure of a CTE teacher’s teaching credentials. Even the Business Teacher, a CTE teacher, could only discuss her credentials and how administrators chose her at the school under study to be a CTE teacher. There were no set requirements discussed or publicly known by the staff to reassure that the students were provided with competent and certified CTE teachers. This may have caused some hesitation for guidance counselors to push college-ready students toward enrolling in the Career Pathways Career and Technical Education Program.

In their response, Participant A stated: “I’m not sure how many years of experience in their designated field a CTE teacher would need to possess to teach CTE courses.” Participant B responded, “I’m not sure how much experience a CTE teacher should possess or if they have to be certified. I would guess they should be certified.” Participant C said, “Not sure on the years of experience, but I do know they must be certified. That’s a district rule.”

Theme Six: Guidance Counselors' and Teachers' Knowledge of CTE Industry Certification Completion

Theme six was an integral component of evaluating the validity and need of the CTE program at the school under study. The guidance counselors and teachers interviewed had mixed responses concerning their knowledge of the student's completion rate of a CTE Industry Certificate. This may have been because the CTE advisor was unorganized and did not keep reliable CTE data.

Participant A stated, "I'm not sure about the success rate of the completions of the industry certificates...the CTE advisor that we have doesn't know the exact number, and that should be something she should know." Participant B stated, "... I'm not sure on the number of the industry certificate completers." Participant C said, "Not sure about how many students receive an industry certificate. The CTE advisor inputs that information, and I haven't seen the results." Participant D stated: "The success rate for the Career Pathways program students is usually 100% if they complete the program. Everyone doesn't receive an industry certificate because the student may have entered the program too late, dropped it because they disliked it, or did not pay their rope fees. I know I had 5 out of the 230 students enrolled in the Career Pathways program receive an industry certificate." Participant E stated, "I know if a student is enrolled and finishes their program, they usually graduate because of the track (courses) they have to follow. I'm not sure how many students earn an industry certificate."

As-Is Analysis

I conducted surveys and interviews during the evaluation of the Career Pathways program at one high school to explore the content, culture, conditions, and competencies

(Wagner et al., 2006) relevant to the problem statement concerning the low student achievement, retention, and graduation rate at the high school under study. During my exploration of the change needed, I noticed misconceptions, lack of skills, and leadership styles affected the low achievement of students and the overall lackluster environment of the school under study. (See As-Is Analysis Chart, Appendix C).

Contexts

In Wagner et al. (2006) definition, contexts are “the set of skill demands every student must meet to succeed as providers, learners, and citizens, as well as the aspirations, concerns, and attitudes of the families and communities a school serves” (p. 104). A solid understanding of context is essential for preparing students for the worlds they come from to the worlds they are entering. Unfortunately, the students at the school under study were failing within the world they were currently living and were on the path to failure in the future based on their school’s context, culture, condition, and competencies.

The students at the school under study scored low on state standardized assessments had low graduation rates and lacked 21st Century skills needed to compete in the global marketplace. Lack of parental involvement was also a contributing factor. The State Department of Education for the school under study reported that only 23% of the students met a satisfactory reading level, and only 51% met a satisfactory math level, much lower than district-wide percentages. I find these statistics very alarming because, looking through the lens of Wagner’s Seven Survival Skills (2008, pp-14-39), it was apparent that specific skills are necessary to ensure a higher probability of high school

graduation, employment, and completion of postsecondary education. Wagner's 7 Survival Skills For 21st Century Students are:

1. Critical Thinking and Problem Solving
2. Collaboration Across Networks and Leading by Influence
3. Agility and Adaptability
4. Initiative and Entrepreneurship
5. Effective Oral Communication
6. Accessing and Analyzing Information
7. Curiosity and Imagination

These skills range from being able to sensibly solve problems that arise and thinking critically while also being able to collaborate across networks successfully. Nevertheless, these skills do not stop there, and one must show they can lead through influence and agility and adaptability to various situations. Taking the initiative, harboring a spirit of entrepreneurship, and displaying effective verbal and written communication forms are essential skills. Finally, one must be able to access and analyze information while showing curiosity and imagination accurately. Based on the student's standardized test scores, it was apparent that the administrators, faculty, and support staff failed to prepare students for success adequately.

Culture

An organization's shared attitudes, values, goals, and practices define culture. Wagner et al. (2006) described a school's culture as shared values, beliefs, assumptions, expectations, and behaviors relating to students and learning, teachers and instruction, instructional leadership, and the quality of relationships inside and outside the school (p.

102). During my study, several cultural challenges emerged. One was using CTE to raise the grade point averages (GPAs) of failing students who lacked the basic skills to perform proficiently in rigorous curriculum classes. The teachers and the guidance counselors stated that administrators told them to enroll failing students in CTE courses to boost their GPA and that earning a CTE industry certificate to be prepared for the workforce was not the primary objective.

Another cultural challenge that emerged was teachers' and guidance counselors' misconceptions about the benefits of CTE. Participants A, C, and D agreed in their interviews that CTE was being used as a band-aid to raise failing students' GPAs temporarily. It was also initially used to place academically, emotionally, and physically challenged students to complete a program that did not require a student to obtain a standard high school diploma. Thus, exacerbated the problem of low student achievement, retention, and graduation rates at the school under study.

Conditions

Wagner et al. (2006) defined "conditions as the external architecture surrounding student learning, the tangible arrangements of time, space, and resources" (p. 101). A condition is an external framework around student learning, influenced by time, space, and resources. The condition by which the school under study operated was not conducive to students excelling in rigorous coursework, increased graduation rates, and students gaining real-world employment skills. Lack of knowledge and advertisement of CTE programs contributed to the dilapidated learning conditions at the school under study. Through the surveys and interviews, school administrators, teachers, and guidance counselors acknowledged that there was little to no advertisement of the Career Pathways

CTE program or basic knowledge of the true purpose of Career and Technical Education (CTE). The lack of funding for the district to advertise and expand the CTE programs was a direct cause of the poor conditions.

Another condition that had adverse effects on student achievement, retention, and graduation rates I discovered through my study was the lack of communication between parents, teachers, and administration, coupled with the lack of parental involvement to increase the learning outcomes of students and CTE programs offered. The National Education Association (NEA, 2008, p. 1) suggested a correlation between parent, family, and community involvement and improved academic and school performance. Schools, parents, families, and the community working together to support learning results in students earning higher grades, attending school more regularly, staying in school longer, and enrolling in higher-level programs. Even though schools strive to ensure academic success, community involvement is vital to prevent students from falling through the cracks. Schools, community stakeholders, parents, teachers, school administrators, and staff must collaborate actively and effectively to produce contributing citizens and responsible adults; collaboration can restore a mediocre educational system.

Competencies

Wagner et al. (2006) defined competencies as the knowledge and skills necessary for individuals to perform their jobs successfully, whereas learning objectives describe what students are to learn. Wagner et al. (2006) also described competencies as “the repertoire of skills and knowledge that influences student learning” (p. 99). Evidently, teachers at the school under study did not have the skills and knowledge needed to enhance student learning. The teachers’ inability to integrate rigorous coursework and

hands-on training required for students to complete a CTE program added to the low student achievement rate and the completion of industry certificates. Participant D revealed during their interview that all students who participated in the CTE program did not complete an industry certificate. Participant E acknowledged that some students did not receive an industry certificate due to entering the program too late, did not want to pay the rope fees, or disliked their CTE program. Participant D only had 5 out of 230 students enrolled in the CTE program complete an industry certificate. Based on the interview results, the interviewees agreed that poor data collection by the advisor responsible for monitoring industry certification was problematic.

The teachers also displayed inefficient collaborative efforts to make the students' environment conducive to learning. According to Chen (2019, p. 76), "the ability to work with people from different disciplinary is a skill for the workplace and is an important skill for teachers too." Participant D's response to the perceptions of the disadvantages of CTE stated, "...in the past, students who may have needed career guidance due to failing academics or because of physical and mental disabilities took CTE courses." The point of the matter was the guidance counselors did not collaborate with teachers to find out what the students were lacking academically. They had not given students any guidance or planned for them to complete a CTE program which inhibited them from learning a trade or receiving an industry certificate. Due to the lack of career guidance and misuse of the CTE program's purpose, the ability of a student to obtain a job after graduation or transfer credits toward a postsecondary degree program was limited. If teachers and guidance counselors at the school under study received collaborative

training or co-teaching strategies, they would have prepared the students academically to graduate from high school and secure viable employment.

Interpretation

My quantitative and qualitative data collection findings revealed there were advantages and disadvantages to Career and Technical Education at the school under study. Based upon the quantitative results from the stakeholders' responses, they agreed that Career and Technical Programs (CTE) are beneficial to students to gain employability skills and exposure to real-world employment opportunities, which is advantageous. Almost all stakeholders felt that CTE was beneficial regardless of whether a student was college-bound or one who was struggling academically and followed the school-to-work track. CTE's (Vocational Education) former reputation is no longer tarnished with the stigma that only failing students benefit and these students cannot succeed in college (Wilson, 2014). This is apparent because both college bound and CTE students are completing CTE programs, and both have the opportunity to pursue and enroll in a postsecondary institution.

Based on my results from the qualitative data collection, most guidance counselors and teachers (stakeholders) I interviewed acknowledged the importance of students gaining experiential learning through hands-on training combined with core curriculum instruction was an added value for students to succeed in obtaining viable employment and to successfully transition from high school completion to obtaining a postsecondary degree. However, the disadvantages expressed through the interview process and the frequency of the answers was the lack of knowledge that most of the stakeholders had when it came to knowing the teaching credentials that a CTE teacher

must possess to teach and knowing the completion rate of each CTE program offered at the high school under study. The findings from my survey and interviews given to the stakeholders turned out this way because there was poor participation in the survey and interview process and a lack of knowledge, significance, and purpose of CTE programs in the current global marketplace.

Judgments

I started with a potential participant pool of two administrators, 125 teachers, eight guidance counselors, and one career technical education (CTE) advisor. Only two administrators, nine teachers, five guidance counselors, and one (CTE) advisor completed the survey. Only three guidance counselors and two teachers consented to interviews. Although there was a low participation rate, the stakeholders' feedback answered each research question.

My first research question was: What is working well with the CTE Program according to the established goals, such as raising student achievement at the high school under study, as reported by staff members, teachers, administrators, guidance counselors, and the career pathways coordinator? The stakeholders indicated through the surveys and interviews that the CTE program contributed to raising student achievement. This was because students who struggled academically and needed credits to graduate were placed in CTE programs to boost their GPA and meet graduation requirements.

My second research question was: What do members of the staff, teachers, administrators, guidance counselors, and the career pathways coordinator report as working well with the implementation of the Career Pathways? The stakeholders agreed that the CTE program was raising graduation rates. The stakeholders agreed that part of

the CTE Program requirements for a student requesting to participate in a CTE program must have a GPA score of 2.8, making it probable for the student to complete the CTE program.

My third research question was: What do members of the staff, teachers, administrators, guidance counselors, and the career pathways coordinator report as not working well with implementing the Career Pathways CTE program concerning improving graduation rates and raising student achievement? There was a consensus from the stakeholder responses that questioned the record-keeping practices of the completion rate, and the follow-up of all the Career and Technical Programs offered at the high school under study. Since there was poor accountability and follow-up of the completion rate of the CTE programs, some of the results were negative and unclear regarding the CTE programs' validity in raising graduation rates and student achievement.

The responses I received from the stakeholders were vague and did not quite answer my last primary research question 4: What do members of staff, teachers, administrators, guidance counselors, and the career pathways coordinator report as ways to improve the implementation of the Career Pathways CTE program to raise student achievement and graduation rates as well as give students other options to pursue post-secondary education? The stakeholders expressed that they were unfamiliar with the process of recording CTE completions, exact graduation rates, and student achievement because only one person had access to the results of CTE programs outcomes. In addition, they expressed the person responsible for the data was unorganized and did not provide them with the statistics needed to make a confident response.

I had two secondary questions: How do guidance counselors at the school under study identify eligible students for the Career Pathways program? and What difficulties if any, do guidance counselors at the school under study encounter associated with the recruitment and retention of students in the Career Pathways CTE program? The stakeholders articulated having difficulties determining which students completed an industry certificate or had no control over the enrollment of failing students in the Career Pathways program. The CTE advisor recruited and advised students concerning the requirements to enroll in the Career Pathways program and monitored the retention of the Career Pathways program's participants. The stakeholder's gestures solidified their diffident responses from my observations during the interview process.

Recommendations

After analyzing the findings of my project evaluation, I identified several important issues to address. One of the concerns was the lack of knowledge that most stakeholders had regarding the credentials of a CTE teacher. A stakeholder's understanding of the teaching credentials of a CTE teacher may appear to be minuscule. Still, it is essential for teachers who teach CTE to ensure that their technical knowledge and skills remain current to provide students with the opportunities to thrive in today's technology-driven work environment (The National Board of Professional Teachers, 2014, p. 12). Therefore, I recommend the high school under study require their CTE teachers to be nationally certified in their prospective field and to be members of a learning community to ensure the teachers are current with the workforce trends. The National Board of Professional Teachers (NBPT, 2014) supported CTE teachers' certification. It stated, "CTE provides students with opportunities to acquire skills, master

concepts, and develop strategies for personal and professional success...Accomplished CTE teachers help students discover their unique strengths and talents by extending learning environments in meaningful ways” (p. 12).

Another concern was the lack of knowledge in integrating CTE courses with rigorous core classes to enhance student learning and for students to acquire real-world skills to compete in a competitive society. As reported by the National Research Center for Career and Technical Education (NRCCTE, 2010), a key goal of CTE should be to integrate curriculum so that students can understand both academic and technical content. The NRCCTE noted, “rigor resides in combining CTE and academic skills as applied to real-world problems” (p. 29). Based on my findings, there is a need to increase awareness of CTE and academic curriculum integration. Derived from the interviews and surveys that I conducted, I recommend professional development and internships to be required for CTE for new and current CTE teachers because only a few stakeholders acknowledged they were aware of the benefits of integrating rigorous courses with CTE.

Conclusion

In this chapter, I examined both qualitative and quantitative findings. In the data collected, staff, teachers, administrators, guidance counselors, and the career pathways coordinator reported the CTE program was working well about the established goals, such as raising student achievement at the high school under study. Career and Technical Education has undergone several changes over the last decade. Students with low socioeconomic backgrounds, particularly those with low achieving or failing grades, have historically been considered viable candidates for CTE programs. This way of thinking was part of the culture of the high school under study and as a result, the Career Pathways

CTE program was underutilized of its purpose by guidance counselors and teachers based on my findings. As part of Chapter 5, a more detailed discussion of data findings and I will present a change leadership plan that is beneficial for all stakeholders involved.

Chapter Five: To-Be Framework

In the previous chapter, I discussed the existing state of operation related to Wagner et al. (2006) 4C's of organizational change: Context, Culture, Conditions, and Competencies for the school under study (see Appendix C). Despite the district's vision to provide every student with a promising and prosperous future, the educators at the school under study did not achieve those goals. Throughout this chapter, I will discuss my ideal 4C's to bring the As-Is Framework, which is the existing state, to the ideal "To Be" state of improved student learning and school improvement (see Appendix D).

Envisioning the Success To-Be

According to Merriam-Webster (2022), "vision is defined as the act or power of seeing" (p. 1). Merriam-Webster also defined vision as "a thought, concept, or object formed by the imagination" (p. 1). For educators at the school under study to impact student achievement, the school's vision will be to increase student achievement, student retention in the Career Pathways program, and graduation rates. The school's vision will ensure all students reach the highest academic standards by educating and preparing them to expand on their highest potential to become successful, creative, productive, ethical, and responsible citizens. For the school under study to be impactful on student achievement, the school's vision should be to increase student achievement, student retention in the Career Pathways program, and graduation rates. The school's vision will ensure all students reach the highest academic standards by educating and preparing them to expand on their highest potential to become successful, creative, productive, ethical, and responsible citizens. All stakeholders will have a shared vision of change; this change

will not happen overnight. It will take communication, collaboration, and trust to set attainable goals to gain small victories.

Future Contexts

Every student needs to have the opportunity to succeed. Students enrolled in the Career Pathways program should complete an industry certificate. To dispel remediation after completion of the Career Pathways program courses, Career Pathways students will be given a basic skills assessment before enrollment in the CTE program to warrant a certificate of completion, sustain employment, and skills needed to compete in the global marketplace. For every student to have that opportunity, the district must concentrate on student academic performance and adhere to the state and local guidelines that measure the school's performance based on students' academic performance by utilizing the Every Student Succeeds Act (ESSA). Within the framework of ESSA provided by the federal government, each state develops an education plan for its school. Cook-Harvey et al. (2016) reported,

Another Opportunity for advancing equity will arise as states choose the measures of student and school performance they will use in their accountability systems. ESSA requires each state to establish an accountability system based on multiple indicators, including:

- academic assessments, as measured by proficiency on annual assessments in English, language arts, and mathematics;
- For high schools, graduation rates;
- English language proficiency gains; and

- At least one other valid, reliable, comparable, statewide indicator of “school quality or student success that allows for meaningful differentiation in school performance.” (p. 15)

Another context I will address is that parents will be informed and engaged in their child’s enrollment in CTE. When parents are knowledgeable and engaged in their child’s educational endeavors, students tend to be more severe and focused on learning and obtaining the necessary skills to achieve their goals (ACTE, 2021, pp. 1-16). Fitzgerald (2018) suggested, “Prospective parents and students are attracted to real-world benefits of CTE” (p. 50). Fitzgerald’s (2018) response suggests real-world skills are one of the determining factors for parents and students to choose CTE as a vehicle to gain academic skills coupled with experience and employment skills to achieve optimum societal success.

Future Culture

As mentioned in Chapter 4, shared attitudes, values, goals, and practices define the culture of an organization or a school (Wagner et al., 2006). The administrators and instructional staff feel the current curriculum is working but based on the low performance of students’ academic success compared to other schools’ student learning outcomes, their attitudes will need to be adjusted to ensure all students receive the opportunity to achieve academic success and upon graduation, can meet the employment needs of today’s society. Their shared goals for improving student learning will involve updating the curriculum to meet today’s workforce needs. As a result, students are well prepared to enroll in a college or university program or obtain stable employment. Once students pass the skills assessment that measures their basic ability to perform

proficiently in English, Mathematics, and Reading, all CTE students will follow a track that will ensure the completion of an industry certificate and fulfill graduation requirements consecutively, giving students a feeling of accomplishment. The last cultural change is that teachers will have industry experience and certification in their CTE expertise. Thus, giving CTE teachers confidence that their instruction will benefit students academically and add value to a student's ability to gain meaningful employment.

Future Conditions

Time, space, and resources influence the condition of a school's ability to address the needs of every student to meet equitable learning outcomes (Wagner et al., 2006). As stated in my 4C's As-Is conditions, school personnel did not promote the CTE program to students as a beneficial program to bridge the gap between graduating from high school and finding sustainable employment or gaining extra college credits to transfer to a postsecondary institution. The To-Be vision of change for the school under study will include allocating resources through grant proposals and community partnerships to produce more advertisements to promote the importance of the Career Pathways CTE program. All students enrolled in CTE will receive on-the-job training from local businesses on the company's sites instead of at the school. Off-site training will provide more space for classroom instruction, and the students will gain industry knowledge while completing their industry certificates. Lastly, the Comprehensive Local Needs Assessment (CLNA) requires a data-driven system that will track student completion of all industry certificates and student academic gains within CTE programs, so the CTE coordinator will need time to record and keep more accurate data because now schools

and districts will need to be more accountable for all funds used towards CTE programs to increase student achievement under the Strengthening Career and Technical Education for the 21st Century Act (Advance CTE, 2022a, p. 1).

Future Competencies

Teachers, guidance counselors, and administrative leaders must possess competencies that improve teaching and learning. All teachers and guidance counselors will receive resources and training to enhance student learning. Co-teaching will be part of the organizational plan of the school under study for CTE students who may be struggling academically. Not only will co-teaching benefit students, but it will also help teachers learn to collaborate with others, have personal support from peers, and allow teachers professional growth. Wagner et al. (2006) stated professional development is at the core of most efforts to improve education (p. 99). There will be ongoing professional development training through professional learning communities (PLC) on-site, districtwide, and statewide.

Conclusion

Reeves (2009) and Altadonna (2022) agreed that all these changes would not be easy. There will be resistance because most people dislike change and will push back regardless of implied incentives or promises. Reeves (2009) said it best, “If we have learned anything about effective change in schools or any complex organization, it is that neither managerial imperatives nor inspirational speeches will be sufficient to move people and organizations from their entrenched positions” (p. 7). Collaboration, teamwork, and communicating the value of every stakeholder are worthwhile and

intricate parts of keeping the wheel in motion. In the next chapter, I will expand on the strategies and actions that educators will utilize to bring forth a successful school change.

Chapter Six: Strategies and Actions

Some students have been struggling with state standardized tests, and their graduation rates have declined. As a result, students were unprepared to enter the world of work or continue to pursue postsecondary education. Subsequently, the principal of the school under study elected to adopt a career and technical education (CTE) program as another way for students to succeed academically, raise graduation rates, and increase the probability of students enrolling in a college or university after completing high school. I conducted a summative evaluation to determine whether the Career Pathways Career CTE program at the school under study effectively fulfilled its purpose. Originally, developers created the program to boost student achievement, improve graduation rates, and provide students with alternative post-secondary education options.

Throughout this chapter, I will connect the “As-Is” and “To-Be” conceptualization using Kotter’s eight steps for organizational change to improve the school under study’s overall learning environment (Kotter International, 2021). I will also identify strategies and actions based on research and best practices in organizational theory, professional development, leadership practices, and communication using Wagner et al.’s (2006) 4C’s Context, Culture, Conditions, and Competencies (see Appendix E). For a successful change, stakeholders must be invested in the change to plan and collaborate as a team to solve the problem.

Strategies and Actions

According to Kotter International (2021, p. 9), the eight steps that are needed to implement and transform organizational change successfully include:

1. Create a sense of urgency

2. Building a guiding coalition
3. Form a strategic vision with initiatives
4. Enlist a volunteer army
5. Enable action by removing barriers
6. Generating short-term wins
7. Sustain acceleration
8. Institute change

When followed step by step, an organization will have the format to follow to create a new infrastructure that will increase student learning by leaps and bounds.

I will use Kotter's eight steps for my recommendation for aligning educational initiatives to support the effectiveness of Career and Technical Education in the school under study. Stakeholders at the school under study must be involved to make Kotter's 8-steps (2012) to organizational change successful. Furthermore, stakeholders must feel the change is meaningful and serves the purpose of attracting buy-in. However, other factors may impede progress, such as human fear or overconfidence, and I will address such obstacles when I recommend this organizational change.

Create a Sense of Urgency

Kotter (2012) stated that setting a sense of urgency is key to gaining cooperation and complacency is the primary obstacle to change because few people are interested in change (p. 38). To execute the first strategy, creating urgency, I will initially have an open and transparent discussion with the school-based administrators, then district leaders, and other school administrators concerning the students' low performance on standardized assessments and their lack of basic skills to perform proficiently in rigorous

curriculum courses. I will present the ACT scores for the school under study and the state for the school under study. (Tables 8 and 9).

Table 8

ACT Scores for Students at the School Under Study (2015)

Subject	Average Score
English	14.8
Math	16.4
Reading	18.1
Science	16
Composite	16.4

Table 9

ACT Scores for Students in the State Under Study (2015)

Subject	Average Score
English	18.9
Math	19.6
Reading	21.0
Science	19.5
Composite	19.9

I will then present the National ACT Scores to highlight the negative comparison. (Table 10).

Table 10*ACT Scores for Students Nationally (2015)*

Subject	Average Score
English	20.4
Math	20.8
Reading	21.4
Science	20.9
Composite	21.0

The ACT assessment also measures the percentage of students who are college ready. (Table 11). I will present and discuss this information.

Table 11*Percentage of Students Meeting College Readiness Benchmarks at the School Under Study (2015)*

Subject	Percentage
English	23
Math	9
Reading	18
Science	6
All Areas Combined	3

Another issue I will review with the group is the benefit of having the Career Pathways career and technical education (CTE) program at the school under study and

how the Career Pathway program increases student achievement and graduation rates. Developing relationships with potential stakeholders such as school administrators, the school board, instructional staff, local businesses, students, and parents is the best way to establish a buy-in because there is representation from the whole community with a vested interest (Auerbach, 2012). I will present the State Standardized Assessments (SSA) student data and graduation rates retrieved from the state's education website of the school under study and compare that data to other schools where CTE programs increased student performance in core curriculum courses. The State of the school under study in 2017 reported that the dropout rate from 2012 to 2016 began at 4.9% and steadily declined to 3.8 in 2016, which was a difference of 1.1% fewer students dropping out of high school and the Department of Education's (2017) reported the dropout rate for CTE completers for the year 2015-16 was 3.1 percent.

I will present information from The Texas Workforce Investment Council (2018) to highlight the impact of an effective CTE program. I will start with information regarding the percentage of students passing the Texas Assessment of Knowledge and Skills (TAKS) math and reading assessments. (Table 12)

Table 12*Percentage of Texas High School Students Passing TAKS Math and Reading Assessments*

Subject	2013-14	2014-15	2015-16	2016-17
<hr/>				
English				
	<hr/>			
All Students	79	70	67	66
Students Participating in A CTE Program	96	97	92	93
<hr/>				
Algebra				
	<hr/>			
All Students	78	79	78	83
Students Participating in A CTE Program	95	97	92	93
<hr/>				

Source: Texas Education Agency. State AEIS Report. April 2018.

I will also present the reported dropout rates from 2012 to 2016, which showed dropout rates are higher for all Texas high school students compared to students enrolled in CTE courses or attending technical prep programs. All Texas high school students had a 2.0% dropout rate, whereas students participating in a CTE program had a lower dropout rate at 1.0%. (Table 13).

Table 13*Dropout Rates for Texas High School Students, 2012 to 2016*

	2012	2013	2014	2015	2016
All Students	2.4%	2.2%	2.2%	2.1%	2.0%
Students in CTE	1.3%	1.2%	1.1%	1.0%	1.0%

Source: Texas Education Agency, Secondary Completion, and Dropouts in Texas Public Schools. April 2018.

The Texas Workforce Investment Council (2018) also acknowledged a higher graduation rate among students taking two or more CTE classes between 2012 and 2016 than for all Texas high school students. CTE students graduated at a rate of 95.6%, compared to 89.1% of all Texas high school students. (Table 14).

Table 14.*Graduation Rates for Texas High School Students, 2012 to 2016*

	2012	2013	2014	2015	2016
All Students	87.7%	80.0%	88.3%	89.0%	89.1%
Students in CTE	95.0%	94.9%	95.2%	95.6%	95.6%

Source: Texas Education Agency, Secondary Completion, and Dropouts in Texas Public Schools. April 2018.

Comparing the student performance data from the State of Texas and the National student performance data of the State for student performance at the school under study will show that the students at the school of study are performing significantly lower.

Build a Guiding Coalition

As no one person can address the needs of all students, I will form a coalition to support a vision of change. Kotter International (2021) stated that a TEAM of people is

needed with a shared vision and interest in moving the initiative forward. The team or guiding coalition must trust each other and have a shared goal (p. 15). Thompkins (2021) also suggested that a more inclusive culture where everyone feels welcome and accepted boosts morale, engagement, and productivity; inclusivity is vital to building an army of volunteers. The school under study has students with diverse needs, and the guiding coalition will consist of administrators and all instructional staff who will collaborate to create an environment for learning. I will include people with diverse perspectives from all areas of expertise (e.g., special education and ESOL). It is paramount to assemble a team of individuals the school and community respect, who are empathetic listeners, reliable, trustworthy, and represent the diversity in the school.

Form a Strategic Vision of Change

The guiding coalition will develop a strategic vision of change. Based on Kotter (2012), a vision refers to an imagined future with implicit or explicit comments on why people should strive to make it a reality. The guiding coalition will strategize and then establish a district-wide operational policy and procedures envisioning CTE programs being an alternative vehicle used to increase student achievement and graduation rates. As part of the policy recommendations and procedures, educators will not admit students struggling with basic academic skills such as reading and mathematics into a CTE program without taking a basic skills assessment before enrolling in a CTE program to ensure “high quality” CTE programs align with academic standards for college readiness. Therefore, this will eliminate the possibility of the CTE student becoming disengaged with the CTE program or school.

The vision must be clear, concise, inspiring, measurable, attainable, and flexible to adjust to any changes needed in order to execute a successful vision of change.

Another strategy to improve a school's culture is for teachers, especially first-year teachers, to feel confident in the classroom. Horner et al. (2018) agreed that teacher collaboration is necessary for school improvement efforts. However, Samuels (2015) acknowledged that as schools improve, leaders are encouraged to consider how challenging building trust for collaboration can be. If used strategically, co-teaching and collaboration can be integral parts of the vision of change for teachers to get assistance from other teachers with students who may be struggling academically. Co-teaching and collaboration strategies build trust among teachers and empower them in decision-making and problem-solving.

Enlist a Volunteer Army

Having developed a sense of urgency, a guiding coalition, and a vision for change, it is now up to the school leader and the guiding team to get everyone involved. This is where a strategic plan is crucial to get everyone's buy-in to the organizational change. It is critical to understand that there will be problems that leaders will need to address. Communicating the vision or gaining the support of other stakeholders is not easy. It is to be expected and understood that with change, there might be barriers that will cause bumps in the plan from operating smoothly and sometimes from moving forward. That is why it is imperative to have discussions about a vision that is clear, simple, and straightforward to achieve a common goal.

Kotter (2012) insisted, "But the real power of a vision is unleashed only when most of those involved in an enterprise or activity have a common understanding of its

goals and direction. That shared sense of a desirable future can help motivate and coordinate the kinds of actions that create transformation.” (p. 87). The way to get volunteer buy-in is to enlist an army of volunteers considered to be “go-to” personnel who are dependable, share the same passions and goals aligned with the vision statement. The army will be a cornucopia of volunteers consisting of the district leaders, school administrators, instructional staff, other faculty members, students, parents (from the school under study), school board members, local businesses, and higher institutions of learning.

Enable Action by Removing Barriers

A guiding team must identify and prioritize organizations' strengths and weaknesses through data from formal and informal surveys from instructional staff and raw data of students' academic assessments before they can remove a barrier. One barrier is the misconception of the relevance of CTE and its ability to improve learning outcomes. Another barrier is gaining trust between principals and instructional staff to have solidarity. Principals will need to clarify and communicate expectations for implementation in individual classrooms and create a plan to begin implementing the change within the school under study. Once the guiding team has identified priorities, the action plan will be ready to develop. The action plan will outline clear and precise guidelines of what is needed to execute the plan. The plan will include objectives with tasks to complete the goals, data collection methods, an attainable timeline to keep the progress moving, and designated individuals who will monitor each objective until completion.

Generate Short-Term Wins

Athuraliya (2022) described a short-term win as an organizational improvement implemented within a short period (p. 8). The win is quick and successful, no matter how big or small. But it should be visible throughout the organization, clear, concise, and relevant to the change initiative. For example, one short-term win will be developing a professional learning community (PLC). The Glossary of Education Reform (2014) describes the professional learning communities' purpose as improving teaching skills and students' academic achievement by meeting regularly, sharing expertise, and working collaboratively. Teachers must see the value of our conversations with colleagues while seeing growth as a group. Growth is linked to a shared goal and creates a genuine commitment to teaching. The guiding coalition will implement easy and quick-to-celebrate strategies so the instructional staff will not feel burnt out, stressed, or overworked. Individuals who were responsible for the short-term wins will be recognized and praised for their hard work to show an act of appreciation and enlist new leaders.

Sustain Acceleration

Kotter (2012) suggested "bombarding people with information on future opportunities, on wonderful rewards for capitalizing on those opportunities, and on the organization's current inability to pursue those opportunities" to sustain acceleration with the initiative (p. 46). The guiding coalition will create a reward system to keep the current stakeholders engaged and dedicated to the cause and to get others involved in the buy-in. They will give gift cards or supplies needed in the classroom to motivate other staff to join in the vision change. The coalition will keep stakeholders integrated into everyday decision-making, problem-solving, or routine activities to keep stakeholders aware of the

vision and tactics to evoke ownership. The coalition members will schedule regular town-hall meetings to keep an open line of communication with stakeholders (local businesses, students, parents, and educational institutions) to have a voice, and all student data will be transparent. The guiding coalition will recruit and train other stakeholders to assume leadership positions through constant advertisement through printed materials, social media, and town hall meetings.

Institute Change

As a means of instituting change, the guiding coalition for the school under study guiding coalition will anchor the changes and embed them in their day-to-day routines (Kotter, 2012). Kotter International (2021) agreed that it is imperative to articulate how new behaviors contribute to organizational success. The school under study can accomplish these goals by gradually ingraining changes into the school improvement plans, principals' and teachers' evaluations, proposed cost, and budget spreadsheets, and revising the school, parent, and student handbooks. In addition, this change will not just be inclusive for the school under study. I will also recommend the district implement this policy change for all high schools within the district to change the culture of the schools and community to ensure academic success across the board.

Assessing the Effectiveness of the Strategies and Actions

As part of instituting change, it is necessary to devise a plan to assess the effectiveness of the strategies and actions taken; Benjamin Franklin (n.d.) said it well, "If you fail to plan, you are planning to fail." My organizational change plan will include an evaluation of the effectiveness of its strategies and actions. As part of the guiding coalition's duties and tasks, they will analyze student data through assessments to

determine if students in the Career Pathways CTE program are performing well academically and review the completion rate of industry certificates. The coalition will use surveys from teachers and evaluations to assess if the action plan is producing academic gains and improved learning outcomes for all students. The guiding coalition will be transparent with all stakeholders through meetings, social media, and the school and district websites. Reeves (2009) acknowledged that the educational standards movement has demonstrated over the past decade that policy change without cultural change is futile and frustrating. Kotter's steps 1-8 are essential, but Kotter (2012) agreed that for a successful policy change, cultural transformation among the school and the district must have shared values and beliefs that are firmly anchored in the new practices before a change happen, which is step 8, instituting change. The guiding coalition will continue to show evidence to all stakeholders through data collected and discuss how student performance improvement attributes to the new practices (culture) and the old practices (culture) that were not resourceful and is now obsolete.

Involving Community Partners in Decision Making

As part of the organizational change at the school under study and throughout the district, connecting businesses and community partners to support CTE programs provides avenues for all students to succeed. The involvement of local community business partners, colleges, and universities can support this initiative, which will assist in addressing the need for school improvement. Stanford-Taylor (2021) suggested that partnerships between educators, businesses, and organizations help students learn the skills, knowledge, and abilities they need to succeed throughout their lives. Additionally, providing externships from local companies for CTE teachers allows them to learn and

develop new knowledge and problem-solving skills to motivate students while making them better teachers and instilling a sense of pride in their profession. Collaboration with stakeholders helps achieve the vision of every child graduating from high school and being college and career ready.

Conclusion

Kotter's eight steps (2012) outline priorities within goals, strategies, and actions to achieve desired changes. There are many challenges associated with change. Conflict is likely to arise due to the change, significantly when it affects an organization's culture. However, change is necessary, and for the school under study's culture to change, a proper framework is imperative for implementing change successfully. In the next chapter, I will recommend a policy change that will increase CTE student performance through assessments and recommend a policy that will allow CTE teachers to enhance their knowledge and skills by participating in internships and externships as part of professional development training.

Chapter Seven: Implications and Policy Recommendations

Time waits for no one; with time typically comes change. For the school under study, this is not the case. From my “As-Is” analysis in chapter 4, school leaders placed failing students in career and technical education classes to boost their GPA. Completing an industry certificate was not the objective for most students. The fact that students lack basic skills indicates that the instructional staff needs to participate in professional learning communities that will allow them to develop new skills and stay current with the latest teaching trends. Co-teaching or collaborative teams are also options for new teachers to gain knowledge from the senior teachers while building trust and confidence. The CTE teacher’s required credentials are another issue that needs refinement to ensure that all CTE teachers are well trained in their field of expertise so that expertise will reflect in their instruction.

Policy Statement

My policy will have a two-prong approach. For the first prong, I recommend a policy change for all preservice CTE teachers to be certified in their CTE specialty as part of their professional development. New CTE teachers will be required to participate in an internship before starting employment, which will be done through a practicum while in college. Once work begins, the training will become an externship which will carry on through to the duration of their employment during the winter break, spring break, or summer break; current CTE teachers will be subject to this policy as well, through externships to continually renew their skills and expand their knowledge. Policymakers will design internships and externships so that teachers can better understand a business by working and gaining an in-depth understanding of its current

trends. The teacher's externship will involve either a scaled-down version of a worker's duties or tasks related to a particular job within their trade, and each participant will choose when and where to complete the required 40-hour externship that will be supported and provided by local businesses or through a local tax initiative. A CTE Teacher of The Year candidate stated,

“One of my keys to success is that I love my discipline. Passion and a willingness to innovate are crucial for a great program, but more fundamental and equally as important is taking the time to stay on top of the changes in my field. I've found it critical to stay current with my skillset and the state of CTE nationally, and I've done this by attending professional development conferences, local seminars, and online webinars to stay up to date on the newest trends” (Bell, 2017, p. 1).

When leaders offer teachers an opportunity to gain new skill sets, it makes their instruction more satisfying, meaningful, and valuable not just for themselves but also for the CTE students to gain new knowledge.

Secondly, my policy will require CTE students to take basic reading, language, and mathematics assessments before being admitted into a CTE program. Any career and technical program at a local technical education institution, traditional college, or university require all applicants to take basic skills assessments such as the Test of Adult Basic Test (TABE) to measure their ability to learn content in hopes of succeeding academically. According to Pasco-Hernando State College (2022), The TABE is a renowned, academic-based, nationwide assessment that measures adults' basic skills for success in their careers and daily lives. The TABE assessment has five different levels. Level L (K-1), Level E (2-3), Level M (4-6), Level D (7-8), and Level A (9-12) for

assessing students' basic skills from K-12 content areas (p. 1). The level A (9-12 grade) skills assessments dictate program acceptance, and for most CTE programs, 12th-grade proficiency in the three subject areas of Language, Math, and Reading are tested and requires a passing score. As an adult education assessment tool for 50 years, The TABE assessment has earned a high level of respect in educational institutions to measure academic success.

The current requirement for students to begin the Career Pathways program to complete an industry certificate at the school under study is for students to have at least a 2.8 GPA, which usually guarantees a student will complete the CTE program and graduate from high school. That is not always the case because educators often use CTE for failing students to raise their GPAs mentioned in the previous chapters (Giani, 2019). CTE is also used at the school under study to place emotionally and physically challenged students without giving them equal access to a chance to receive a standard high school diploma, thus, sabotaging successful learning outcomes for all students. Implementing this policy change is more of a predictor to increase graduation rates, improved student achievement, and gaining employability skills than what the school under study is currently using.

Analysis of Needs

Analysis of the different needs associated with a policy proposal is necessary when recommending change. The school under study experienced gaps in student achievement. I intend to change the current culture of low student achievement to a culture focused on all students' academic success. As part of the process, I will analyze six distinct areas: Educational Analysis, Economic Analysis, Social Analysis, Political

Analysis, Legal Analysis, and Moral and Ethical Analysis for a deeper insight into the problems involved.

Educational Analysis

Creating professional learning communities (PLCs) has become a widely recognized strategy for enhancing student achievement and school development. Professional learning communities have become a robust framework for teachers' professional development (Watson, 2014; Turner et al., 2018). Researchers Lomos et al. (2011) stated that effective PLCs include teachers who improve their instruction to improve student achievement. PLCs also contribute to the effectiveness of schools (Louis et al., 2010; Hofman et al., 2015). Moreover, PLCs are a means to create collaboration among teachers to share educational experiences and learn new strategies to institute new ways to hone students' skills to produce positive learning outcomes. Requiring internships for CTE teachers is another way to expand teachers' knowledge, especially teachers who are certified in a career and technical field. These internships will allow teachers to acquire new skills and tasks learned at work to eliminate or incorporate into the curriculum.

According to the State Department of Education, the school under study is not a school where students are required basic skill assessments for entry into CTE programs; students fulfill basic skill requirements when earning an Industry Career Certificate of Completion, an exit requirement, by mastering all standards benchmarks (citation withheld to protect confidentiality). It is advantageous to ensure CTE students have primary Language, Reading, and mathematics skills before enrolling in a CTE program by administering a basic skills assessment. These assessments measure a

student's program completion rate, predict graduating from high school to gain highly competitive and meaningful employment, having the option to transfer credits to a postsecondary institution, and eliminating the possibility of failure to complete an Industry Certificate academic skills requirement, which constitutes remediation.

Economic Analysis

Any policy proposal needs an economic analysis to determine how it will impact the school or district and where the funding is coming from to support the policy change. Odden (2014) suggested that “a strategic approach to using education dollars means aligning the use of resources to a solid, powerful, and comprehensive education-improvement plan” (p. 4). Residents will fund the policy through a proposed sales tax or property tax which will fluctuate annually due to the fluctuation of sales and property taxation to defray the cost. Officials will also allocate funds from state lottery proceeds, grants given to districts for schools in need from the United States Department of Labor, and scholarships or internships from local businesses. All these resources are designed to provide funding to improve student learning and teachers' knowledge of best practices in the classroom. The funding resources will also have a long-term economic impact on the earnings of CTE students because research shows that “CTE associate degrees can pay \$10,000 more per than associate degrees in other fields and even pay more than bachelor’s degree while limiting student debt”, according to The Association of Career and Technical Education (2022). This impact will fulfill the need for skilled workers to boost the global economy.

Social Analysis

The world has become increasingly concerned about student learning strides and student engagement. Harbour et al. (2015) agreed the degree of student engagement in academic instruction is one of the most well-established predictors of student achievement; when students are more engaged, they tend to have better educational and social outcomes. Instead of teachers focusing on teaching to give instruction, teachers need to focus on learning rather than teaching. Dufour and Fullan (2013) acknowledged that using PCLs can improve student learning by teachers working collaboratively. Collaborations between teachers foster professional and personal relationships while learning together, and the support of teachers with the ability to delegate tasks allows each teacher to feel adequate to contribute to student success and school improvement. Teachers creating a collaborative learning environment help students develop higher-level thinking skills and boost their self-esteem and confidence. Devers-Basileo (2016) stated that highly organized PLCs focused on planning instruction and professional development generate human capital based on accumulated knowledge, experience, and wisdom. PLCs also generate social capital based on interaction among teachers sharing and exchanging their accumulated knowledge (p. 1). The social impact of my policy proposal is rooted in having highly effective PLCs to create the potential for improved outcomes for student achievement and teacher learning.

Political Analysis

The 50-year-old Elementary and Secondary Act (ESEA) authorized all students to have an equal opportunity to learn, as the U.S. Department of Education (2015) acknowledged. The Goals 2000 Act (1994) replaced the ESEA Act (1965) and included

additional funding for teacher training. Educators across the country continually try to devise strategies for teachers to incorporate the latest content in their lessons. This content should align with district and state standards while meeting the needs of all students. With No Child Left behind, focusing on improving standardized testing did not allow teachers to allocate time for learning. The Every Succeeds Act (ESSA), signed into law by President Obama on December 10, 2015, recouped teaching time from standardized testing.

Lee (2018) reported that ESSA also requires each state to measure the performance of schools using four mandatory academic indicators: academic achievement, academic progress, English language proficiency, and high school graduation rates. A fifth measurement must measure student success or school quality within one of the areas of kindergarten readiness, access to and completion of advanced coursework, college readiness, discipline rates, and chronic absenteeism (p. 4). Lee (2018) also reported that ESSA requires each state and school district to receive a school report card on how well the schools are doing. The report card is published publicly to show transparency (p. 5). The most effective way a district or school maintains their school's reputation is through transparent communication; transparency is one of the key factors contributing to trust. There may be some pushback because to implement this policy; people will need to vote to increase property taxes. On the contrary, politically, people are more willing to support policies when schools are performing well.

Legal Analysis

The Department of Education of the school under study does not require students to take a Reading, Mathematics, and Language assessment before entering the Career

Pathways CTE program, only when exiting a Career and Pathways CTE program as part of the industry certificate completion requirements. I foresee pushback by the State Department of Education, the district, and the school under study to implement this part of the policy change due to State Board Rules and the district's autonomy to not enforce or require students to take a basic skills test before enrollment in a CTE program.

According to the State Department of Education (2020), there are basic skills exemptions or waivers for disabled students who are not required to test but can earn a Career Certificate of Completion and still report as completers (citation withheld to protect confidentiality). My policy may contradict the rule that all students, regardless of their physical abilities, are not subjected to pre-testing before program acceptance.

Moral and Ethical Analysis

It is essential to understand why students enroll in a particular CTE program. Students' motivation provides insight into why they gravitate toward CTE, and intrinsic and extrinsic motivation is usually the motivating factor. When a school has a high-quality CTE program, it can produce positive learning outcomes concerning increasing graduation rates. According to Zibell (2020), CTE in schools emphasizes career readiness and hands-on learning. These aspects create a more engaging school environment linked to higher graduation rates among students. On average, the high school graduation rate in 2012 for CTE students was 93%, compared to the national average of 80%. This data shows that students are more motivated to succeed when given a chance to work toward their goals while receiving hands-on training to apply in real-life work.

As a result of the reauthorized version of the Carl D. Perkins CTE Act V, The Strengthening Career and Technical Education for the 21st Century Act (2018), states

now have greater authority to set their own CTE objectives and goals, removing a previous negotiation process. Under this change, it is a requirement for states to make "meaningful progress" toward their goals. Like other schools across the United States, the school under study received funding as part of the reauthorization of the Carl D. Perkins V CTE Act. The reauthorization involved improving student performance, focusing on graduation rates, advancement training, and postsecondary enrollment, and requiring CTE programs aligned to state and local needs. Educators must prepare all students to graduate from high school and provide opportunities for students to decide which path to success, obtain gainful employment, or continue the transition of enrolling into a postsecondary college. Unfortunately, some students are still placed in CTE courses to boost their GPA or fulfill a graduation requirement without considering students' wants and just providing a need.

Implications for Staff and Community Relationships

Before community partnerships can exist, the leaders and staff of the school under study must understand the benefits CTE offers regarding student learning. School leaders also need to see the value in allowing CTE instructors to participate in internships to enhance their knowledge of the current workforce trends and to share and incorporate their experience and expertise into the curriculum. In addition, ensuring the PLCs are not just for a social gathering but a place where there is trust, collaboration, shared vision, and goals in hopes of building a culture of trust. Blanchet (2022) agreed leaders must cultivate a culture of trust if they want teachers to achieve their utmost potential in and out of the classroom. Therefore, teachers need full autonomy to express their new ideas to feel they have made a difference in school improvement.

Developing a policy that improves student learning can lead to positive stakeholder relations. Loria (2018) stated the purpose of an education partnership is for a district or school and a community-based entity (e.g., business, nonprofit organizations, government agencies, higher education institutions) to collaborate to support students, staff, and families (p. 1). The relationships between schools and communities can only enrich student learning. In addition, a partnership between districts, schools, and community organizations is mutually beneficial when resources, services, and collaborative efforts are shared. Equally important, influential leaders of districts and schools need to identify any academic gaps within their organization to determine how to narrow them with the assistance of community partners to benefit students, families, and their staff.

Conclusion

Despite the unique characteristics of each initiative, all educational institutions and organizations are committed to enhancing student learning and gains. Student data is an effective tool when measuring gaps in student achievement. Hence, I made several policy recommendations to address declining student achievement, with varying degrees of success. In my change policy, I recommend academically assessing students before entering any CTE programs to ensure the probability of meeting graduation requirements and the successful completion of the CTE program, unlike the current guidelines before exiting the program, which can cause failure to complete the program or remediation. I also propose to provide internships for CTE teachers to gain more knowledge and expertise in their careers and technical field. The main goal is to share strategies during PLCs with other teachers and school leaders through a collaborative effort to gain a

shared value of the importance of CTE and how it can increase student learning. In the next chapter, I will discuss how CTE is effective when the program aligns with state and district policies and the leadership lessons I have learned from my program evaluation.

Chapter Eight: Conclusion

I chose to evaluate the Career Pathways CTE program because there were misconceptions among educators regarding the validity of career and technical (CTE) programs and their effectiveness in raising student achievement and graduation rates. I used qualitative data such as surveys and interviews to determine if CTE was being utilized for its intended use to improve student learning and increase graduation rates at the school under study. In addition, I wanted to bring awareness to the educators at the school under study and the district of how CTE programs can boost students' academics and provide "real world" work experience, high-level skills, and another pathway to college through a policy change recommendation. Through this proposed policy change, students who enroll in a CTE program take a skills assessment before beginning the CTE program instead of upon exiting. This change ensures that students can perform academically at grade level, which will put them on track to graduate on time and assure students that their program knowledge is tested and not their basic skills, eliminating the possibility of remediation after the program completion. Additionally, current CTE teachers will participate in externships to keep up with the new trends within their perspective CTE fields to gain new knowledge and skills to teach their students effectively.

Discussion

Because students at the school under study were performing academically poorly on standardized tests, the district and school administrators chose to adopt Career and Technical Education to aid in school improvement and increase students' academic success like all school districts and schools among the 50 states and territories. Schools

nationwide rushed to adopt CTE to increase academic progress as part of a reauthorization of the Perkins Acts (1990, 1998, 2006, and 2018). Each Act stemmed from a different Act that the U.S. Government legislated to improve the mediocre educational systems it had become to compete with other countries that were producing highly educated and highly trained skilled workers. According to Advance CTE (2022b), President Trump signed the Strengthening Career and Technical Education for the 21st Century Act into policy in July 2018, strengthening the Perkins V, reflecting the 100-year federal commitment to Career Technical Education (CTE). The Strengthening Career and Technical Education for the 21st Century Act (the reauthorization of the Perkins V Act) provides federal support for CTE programs and focuses on improving the academic and technical achievement of CTE students, strengthening the connections between secondary and postsecondary education, and improving accountability” (para. 2).

I used surveys and interviews to evaluate the perceptions of administrators and instructional staff from the school under study on the effectiveness of CTE to raise student achievement and graduation rates while giving students career and college admission options post-graduation. Of the two administrators, 125 teachers, eight guidance counselors, and one career pathways coordinator (CTE advisor), only nine teachers, five guidance counselors, one administrator, and one career pathways coordinator agreed to participate in the survey for a total of 16 participants. In addition, out of the targeted survey participants, there were only five participants who decided to participate in interviews. Those participants were three guidance counselors and two teachers. During the individual interviews, I gathered additional information by asking interviewees open-ended questions regarding their experiences with CTE, funding

resources, data collection for the Career Pathways program, and the student participants' achievements at the school under study. The interviewees all agreed that CTE participation could be advantageous for all students. However, there were still misconceptions about implementing the CTE program to provide increased student learning and graduation rates. It became apparent during my exploration of the change needed that misconceptions about CTE being ineffective, students' basic skills deficiencies, inadequate student data collection, and leadership styles were contributing to the poor performance of students and the unwavering general culture at the school under study.

According to Wagner et al. (2006), the 4C's, which are contexts, culture, conditions, and competencies, are all part of the arenas of change. When schools and districts recognize deficiencies or gaps within their infrastructure (As-Is Framework) and take a systematic approach to combat challenges to achieve goals using the 4C's, organizational change will occur (p. 98). Nevertheless, I understood that this change would not happen without acknowledging the misfortune of the current state and then envisioning the success of the change (To-Be Framework). Kotter International (2021) stated Kotter's eight steps for evoking organizational change are creating a sense of urgency, building a guiding coalition, forming a strategic vision with initiatives, enlisting a volunteer army, enabling action by removing barriers, generating short-term wins, sustaining acceleration, and instituting change to implement new strategies and activities (p. 1). Kotter's eight steps (2012) are essential when transforming a school's or district's culture. After forming the guiding coalition, the guiding coalition will execute the seven other steps of Kotter's organizational change to take a system riddled with gaps within the

process of student learning and failed best practices to a seamless design that encourages successful learning outcomes for all students and staff as outlined in my recommended policy change.

My policy change has two recommendations. The first policy change requires students to take basic skills assessments before entering a CTE program to dispel remediation after completing a CTE program. Secondly, I recommend externships for CTE teachers to learn new instructional strategies based on short-term training at a local business within their CTE fields of practice. These policy changes and procedures will benefit the school under study and the district in keeping CTE programs aligned with state and national policies, rules, and regulations. Furthermore, when CTE programs align with state and federal policies, students are more likely to excel academically, increasing graduation rates based on the research presented throughout this program evaluation.

Leadership Lessons

One leadership lesson I have learned during this process is that student learning should be the top priority of all school leaders, based on Standard 2 of State Principals Leadership Standards for the school under study (citation withheld to protect confidentiality). All students can achieve this when educators maintain a school climate conducive to optimal learning. When policy changes occur, the principal is responsible for implementing improvements and changes. Rieckhoff and Larsen (2012) stated, "School leaders are under increasing pressure to meet school improvement goals, provide each child with an instructional program for optimal learning to occur, and generate test

results that provide documentation of these factors. Principals are expected to create a vision for their schools with clearly articulated goals for sustainable change" (p. 57).

Another leadership lesson I have learned is practical leaders work collaboratively to develop and implement an instructional framework. The State Principals Leadership Standard 3 for the state of the school under study (citation withheld to protect confidentiality) cites how a leader implements an instructional plan. I have come to understand the importance of making student learning the priority. For a student to learn effectively, there should be an instructional plan that aligns the curriculum with state standards to meet the needs of all students. By collaborating with other school leaders, stakeholders, teachers, staff, parents, and the community, the school under study can decrease the achievement gap by making educational resources equitable and accessible to all students.

Through my evaluation of the Career Pathways CTE program, I encountered another leadership lesson I felt was necessary for successful school leadership. The State Principals Leadership Standards 5 for the state of the school under study (citation withheld to protect confidentiality) cites leadership involves maintaining a safe, respectful, and inclusive learning environment so that students can build a foundation for success in a democratic global economy. This is where CTE can provide students with rigorous courses combined with industry knowledge and competitive skills to decide if the world of work is their path to success or college. College and career readiness outcomes continue to be a primary focus in education. With the strong support of federal funding, educators are using CTE to increase college and career readiness for secondary students.

Conclusion

All educators must adopt a proactive approach to keep students engaged in their education and prevent them from dropping out. A study done by American College Testing (ACT, 2013) suggested, “We should be educating all high school students according to a common academic expectation, one that prepares them for both postsecondary and the workforce” (p. 1). If more students are aware of other educational opportunities and are allowed to pick their course of study based on their career interests while concentrating on core academic courses, student achievement may increase. For a school and district to successfully make learning improvements and keep the momentum going, they must first identify and analyze the problem, develop a plan of action, design the strategy, plan for implementation, implement the strategy, assess progress, and then adapt and modify the plan for continuous improvement.

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Appendices

Appendix A: Survey Questions

Appendix B: Interview Questions

Appendix C: “As Is” 4 Cs Analysis

Appendix D: “To Be” 4 Cs Analysis

Appendix E: Strategies and Action Chart

Appendix A

Survey Questions

Please answer the questions using the following scale:

1 = Strongly Agree

2= Agree

3= Strongly Disagree

4= Disagree

5= Neutral

-
1. College bound students should take career and technical education courses.
 2. Career and technical programs are beneficial to students to gain employability skills.
 3. The Career Pathways Program addresses the needs of the students' ability to continue an education at the postsecondary level.
 4. Students who are enrolled in the Career Pathways program are less academically prepared compared to other students not enrolled in a career and technical program.
 5. Career and technical courses are beneficial to high achievers.
 6. The Career Pathways (CTE) program helps raise student achievement.
 7. The Career Pathways (CTE) program is a viable and comprehensive program that helps students to smoothly transition into an accredited postsecondary program.

Please indicate if you are willing to participate in an interview

Yes – I would like to participate in an interview.

No – I do not wish to participate in an interview.

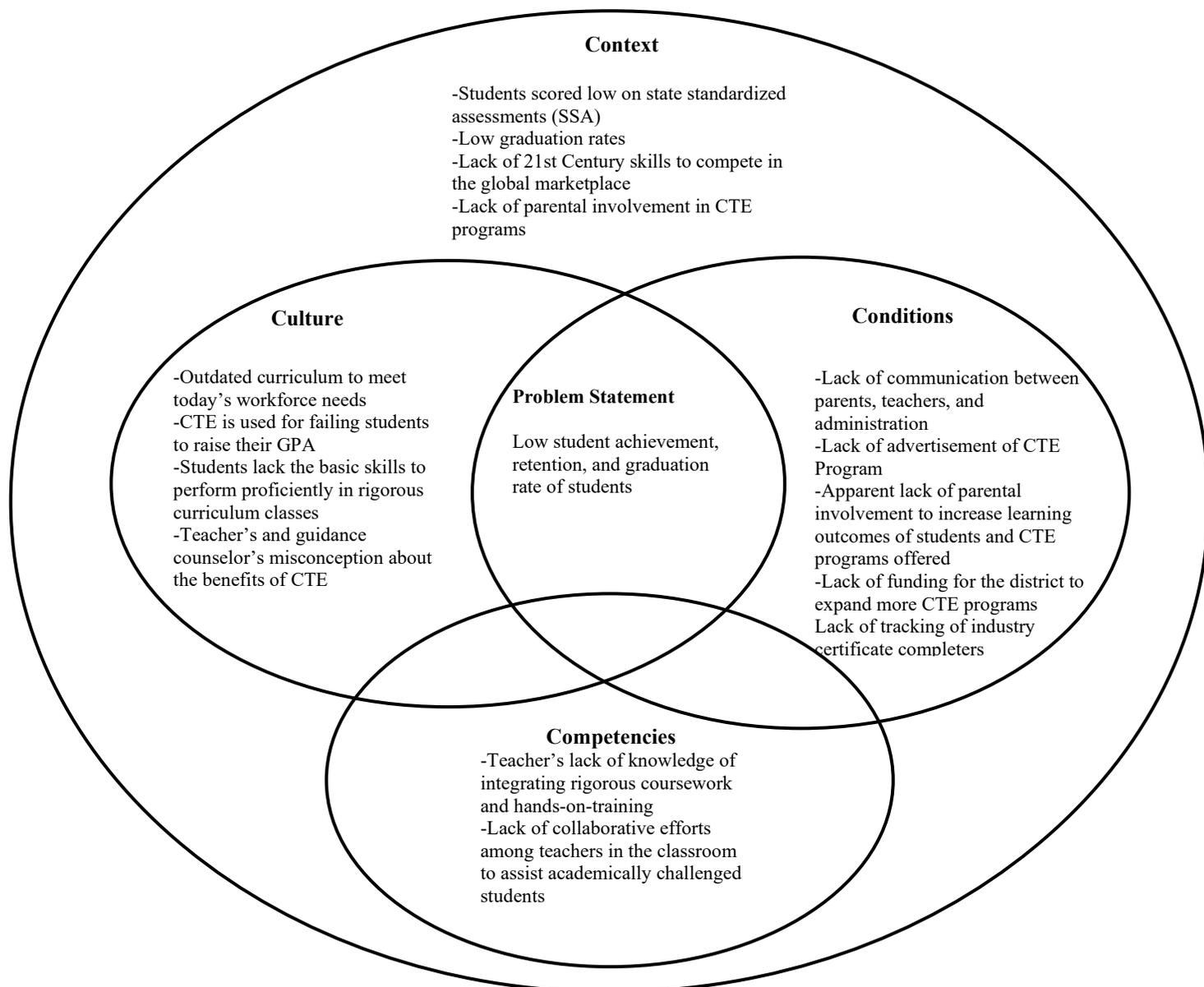
Appendix B

Interview Questions

1. Please provide me some information about your role as a leader:
 - a. What is your role in the school/district?
 - b. What teaching and/or leadership experiences provided you the qualifications to assume this role?
 - c. What is your perception of the importance of the Career Pathways program and career and technical education?
2. Can you tell me your knowledge and experience with career and technical education (CTE)?
3. From a historical perspective, tell me a little about:
 - a. The role of CTE at your school.
 - b. The CTE career clusters offered at your school.
 - c. The CTE curricular teams at your school.
4. Are all of the teachers who teach a course for the Career Pathways program certified to teach in their designated program and how many years of industry experience do they possess?
5. What is the mission of the Career Pathways program and how does it align with the mission of the district?
6. What is the procedure to recruit, select, and retain qualified CTE teachers?
7. What is the success rate of students completing the Academy of Multimedia program and how many students complete an Industry Certificate that can be transferred to a postsecondary program?

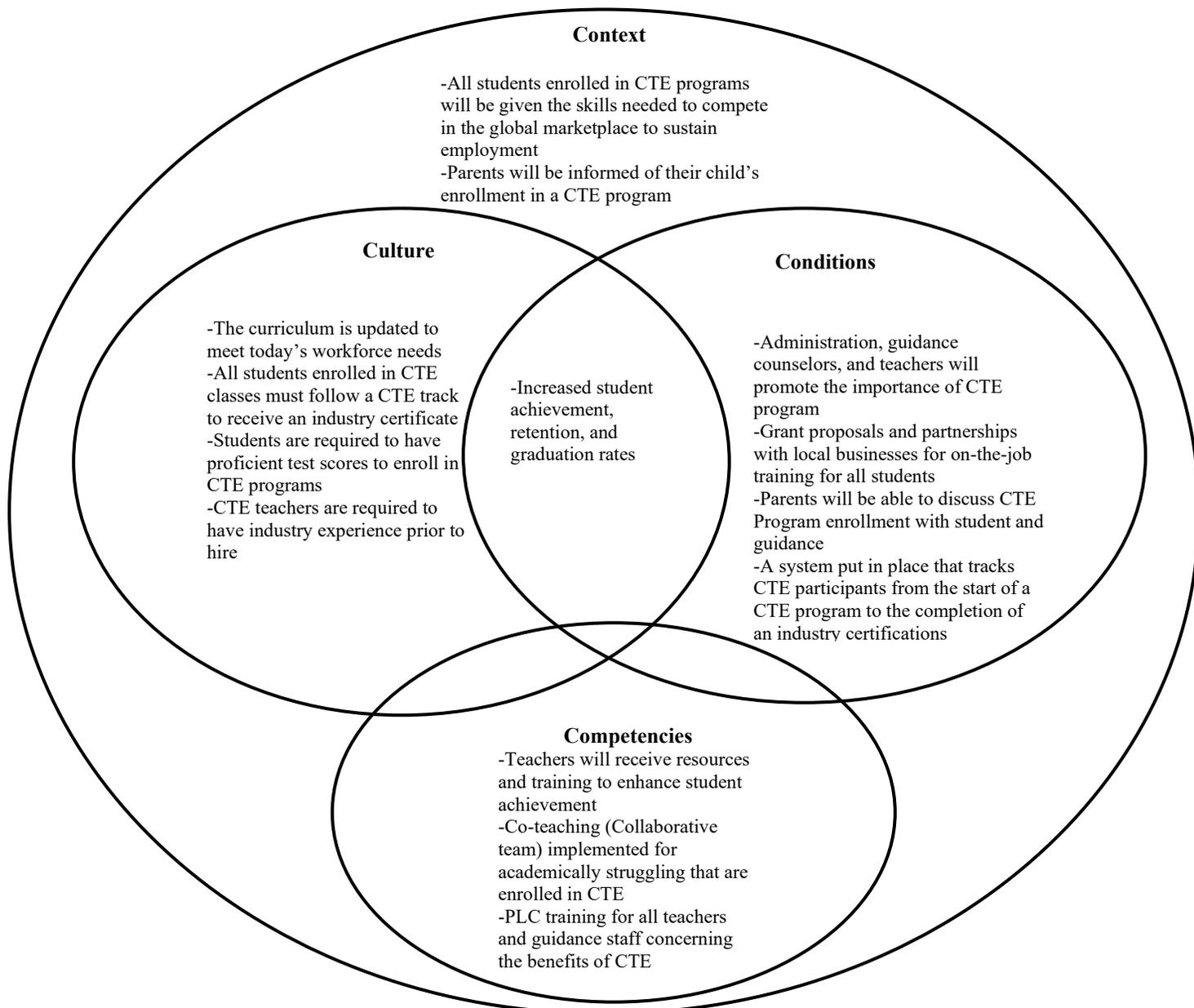
Appendix C

“AS IS” 4Cs Analysis



Appendix D

“TO BE” 4Cs Analysis



Appendix E

Strategies and Action Chart

Strategies	Actions
Create a sense of urgency	<ul style="list-style-type: none"> • Establish an opportunity to have an open, transparent discussion with the principal concerning the student's low performance on standardized assessments (SSA), lack of basic skills to perform proficiently in rigorous curriculum courses, and lack of 21st Century skills needed to compete in the global marketplace. • Develop relationships with potential stakeholders (administrators, the district, school board, instructional staff, guidance, and members of the local community to share information to establish a buy-in • Use student learning data to reinforce the urgency.
Build a guiding coalition	<ul style="list-style-type: none"> • The guiding coalition will consist of the school's leadership team, including administration, instructional staff, guidance counselors, the CTE Coordinator, a local community member, the district, the school board, and a parent. • All stakeholders involved in the organizational change will be represented within the leadership team • The guiding coalition will work together to develop a school-wide plan that addresses the need for improvement in student achievement, graduation rates, and retention.

Form a strategic vision and initiatives	<ul style="list-style-type: none"> • The guiding coalition will strategize and establish district-wide operational policies and procedures for CTE programs to envision how CTE programs can increase student performance. • The vision will be clear, concise, challenging yet simple, inspiring, measurable, and flexible to adjust change when needed.
Enlist a volunteer army	<ul style="list-style-type: none"> • Integrate stakeholders into everyday decision-making, problem-solving, or routine activities so that stakeholders know the vision and tactics to evoke ownership. • Enlist volunteers who share the same vision and are considered “go to” personnel who are dependable to get tasks done.
Enable action by removing barriers	<ul style="list-style-type: none"> • Identify and prioritize the organizations’ strengths and weaknesses through data gained from formal and informal surveys from all stakeholders involved in the school improvement plan. • Focus on removing all obstacles that will slow down progress. • The action plan will be created once the guiding coalition has identified priorities.
Generate short-term wins	<ul style="list-style-type: none"> • Implement strategies that are easily and quickly achieved to celebrate. • Recognize and reward individuals responsible for the short-term wins to motivate other staff to join in the vision of change. • The coalition will strategize and implement co-teaching instruction to assist teachers with students who may be struggling academically and PCL training for all teachers and guidance counselors to understand the benefits of CTE.

Sustain acceleration	<ul style="list-style-type: none"> • Improve and expand more to keep the momentum going. • Regular town-hall meetings will be scheduled to keep an open line of communication so all stakeholders to have a voice and all data will be transparent. • The guiding coalition will recruit and train other stakeholders to assume leadership positions, helping to bring about change and contribute to the success of the change effort. • CTE teachers must have a certificate in the career and technical field of instruction and will intern at the local business during the summer session to keep up with current employment trends. • All teachers will develop and continue to enhance their knowledge and understanding of how to improve the core competencies that will enable students to graduate on time. • Create a reward system
Institute Change	<ul style="list-style-type: none"> • Consistently ensure all organizational norms, values, procedures, reward systems, and other frameworks align with the new strategy. • A “No-Fault” environment will be established, and all stakeholders will be held responsible and accountable for students’ academic performance.