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Career and Technical Education High School Internships: A Program Evaluation of the Effect Internships Have on the Education and Career Choices of Students

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CAREER AND TECHNICAL EDUCATION HIGH SCHOOL INTERNSHIPS: A PROGRAM EVALUATION OF THE EFFECT INTERNSHIPS HAVE ON THE EDUCATION AND CAREER CHOICES OF STUDENTS

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Approval Page

This dissertation was submitted by Randal L. Hylemon under the direction of the persons listed below. It was submitted to the Gardner-Webb University College of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Abstract

CAREER AND TECHNICAL EDUCATION HIGH SCHOOL INTERNSHIPS: A PROGRAM EVALUATION OF THE EFFECT INTERNSHIPS HAVE ON THE EDUCATION AND CAREER CHOICES OF STUDENTS. Hylemon, Randal L., 2022: Dissertation, Gardner-Webb University.

The study evaluated the effectiveness of career and technical education internships during high school and gave the administration some insights that can guide the program forward. A key component of the program's effectiveness is the impact the program has on the overall education and career choices of students involved in career and technical education (CTE). This formative program evaluation collected qualitative data by surveying students who had participated in internships while attending each of the high schools located in a school district in the western part of North Carolina to gain information regarding how their internships affected their educational path and career choices. Data were then categorized and analyzed using qualitative methods to determine if participating in internships during high school affects the choices in degrees sought and career paths taken. Results showed that for those who responded, the internships had a major effect on their career choices and that more information about the student, their experience, and their plans are needed as the student concludes their internship.

Keywords: career and technical education, internship, high school, logic model, CTE program evaluation, qualitative

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Chapter 1: Introduction

Internships have long been established as a method for a student to learn a craft or skill and move toward being a skilled professional beginning with apprenticeships as early as the 14th century. Katharine Whitehorn, a British journalist said, “Find out what you like doing best and get someone to pay you for doing it” (Jeffries, 2008, para. 7). Whitehorn’s idea is what can be accomplished with high school students participating in internships. Students can find out what they like doing by being involved in an internship and then pursue further training to become skilled professionals. This is happening in high schools across the nation, with students taking internships through their high schools in their local communities.

As early as 1563, apprenticeships were used as an appropriate form of training (Mirza-Davies, 2015). Apprenticeships in England have evolved over the years with the modern apprenticeships established in 1994 and lasting until 2010. These modern apprenticeships gave the worker an opportunity to work towards a national vocational qualification Level 3 while being paid a wage (Foley, 2020). The national vocational qualification levels ranged from 1 to 5 and the first three levels took about a year each to complete, although the timeline for completion is individual (Rolfe, 2020).

Internships in the United States were established as early as 1906 as a cooperative education program by the University of Cincinnati. Their primary function was to give students financial assistance with their education while engaging them in professional programs (Thiel & Hartley, 1997). Both internships and apprenticeships give the intern hands-on training; however, that is where the relationship ends (Glassdoor Team, 2018). Internships provide students with an opportunity to gain experience in a profession or

career they find interesting (LeMontree, 2014). Internships are designed for students to explore options for career paths, as well as make professional connections while developing their talents (Gardner-Webb University, n.d.). The benefit to high school students is they will be able to determine career goals earlier, which in turn helps them focus on their education to reach their goals. For example, the success of one high school internship program located in Minnesota is a result of six key components. The key components of this internship program included giving the students proper training in the job where they were interning. The internships offered to the students gave them experiences that were relevant. The internship program was deeply rooted in the community. Students were given assistance from their mentors. A component of the program included college and career coaching, and the majority of internships were paid internships (Hillestad, 2017).

Career and technical education (CTE) is the practice of teaching job-related skills used in careers across the nation to students from middle school through postsecondary institutions (Schultz, 2022). CTE is divided into career clusters that lead to careers that are in high demand. Students in CTE courses learn basic theory in the introductory lessons. The main portion of a CTE course is the hands-on, practical experience, and the assessment of learning is the application of knowledge. CTE gives students technical skills, academic skills, and employability skills through the hands-on approach to learning (SkillsUSA, n.d.).

Study Site

The district in this study is made up of six traditional high schools, one alternative education high school, one early college, and two schools designated as cooperative

innovative high schools. According to a special edition magazine published by the district, the district's student body is made up of 51.2% males and 48.8% females; 70.6% are White, 16.2% are Hispanic, 6.8% are Black, 4.3% are multi-racial, 1.3% are Asian, .4% are Native Hawaiian/Pacific Islander, and .3% are American Indian. In the school year 2020-2021, there were 632 National Board-certified teachers working in this district, making it 18th in the state (North Carolina Department of Public Instruction [NCDPI], 2022).

The school district has long been involved in partnering with local businesses to provide the hands-on training needed for their students to succeed in the ever-changing world around us. Each of the mainstream high schools employs a career development coordinator (CDC) who oversees the assignment of students to the businesses for their internships. Stone and Lewis's (2012) research showed the positive effects of CTE on engaging students in high school and showed the importance of a strong CTE experience. Students who entered high school at a normal age and earned three or more CTE credits with at least one three-credit concentration in an occupation field were more likely to finish high school and continue in that occupation field (Stone & Lewis, 2012).

Students in this district are required to complete 28 credits for graduation. Twelve of these credits are considered electives and are used to allow students to pursue their personal interests. These courses fulfill the requirements of the Future-Ready Core Course of Study, unless they are approved for the Future-Ready Occupational Course of Study. Table 1 shows the course credit requirements needed for graduation in this district, including the elective credits that are related to the three-credit CTE concentrations.

Table 1

Future Ready Core – High School Graduation Requirements

Content area	Required credits
English (North Carolina State Requirement)	Four credits required English I, II, III, IV
Mathematics (North Carolina State Requirement)	Four credits required Mathematics I, II, III Plus Fourth math course aligned with the student's post high school plans
Science (North Carolina State Requirement)	Three credits required A physical science course, Biology, Earth/Environmental Science
Social Studies (North Carolina State Requirement)	Four credits required World History American History I: Founding Principles American History II American History: The Founding Principles, Civics and Economics **A student who takes AP US History instead of American History I: Founding Principles and American History II must take the honors research course that is connected to the AP course to satisfy the graduation requirement
Health & Physical Education (North Carolina State Requirement)	One credit required Ninth-Grade Health and PE and Compression Only CPR (This is usually completed in middle school but if not please see your counselor for more information)
Electives (North Carolina State Requirement)	12 credits required Two elective credits in any combination of the following: • Career and Technical Education (CTE) • Arts Education • World Languages

(continued)

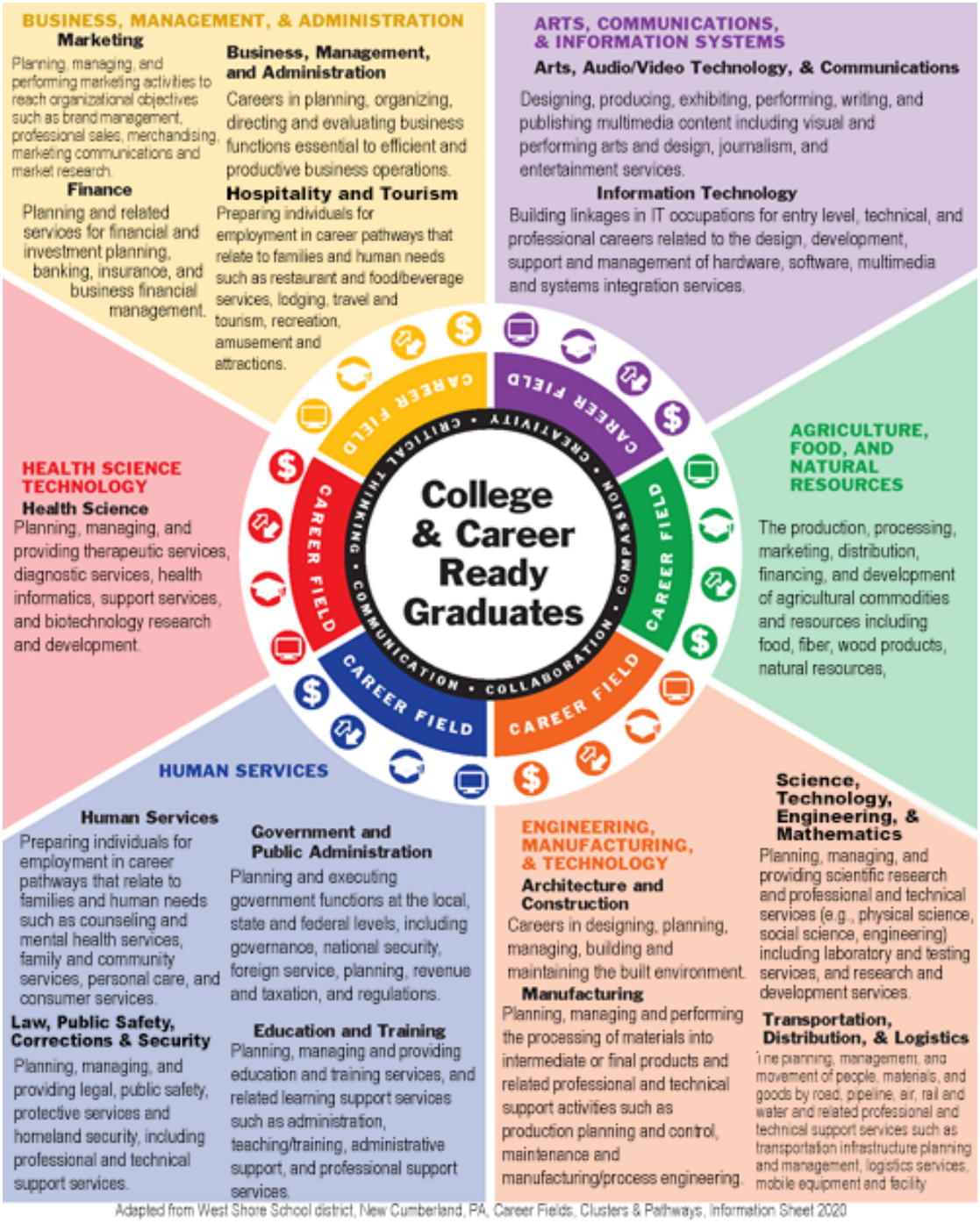
Content area	Required credits
	Students are expected to complete an elective credit concentration from one of the following: • Career and Technical Education (CTE) • JROTC • Arts Education (e.g., Dance, Music, Theater Arts, Visual Arts) • Social Studies • Science • Mathematics • English • World Languages • Health/Physical Education • ESL Students are expected to complete six additional electives that meet college admissions requirements and/or that are of interest to the student.
World Languages	Not required for high school graduation A two-credit world language minimum is required for admissions to the UNC system and many other universities
Total	28 Credits

Note. Adapted from "Graduation requirements" by School Board Policy Code 3460.

The students in this district who choose to concentrate on CTE have completed a four-credit concentration in CTE. Hopefully, these are in the same program area. This district CTE program offers six main career pathways at each of the seven high schools within the district: agriscience, business, family and consumer science, health science, marketing, and trade and industry. Figure 1 shows the 16 specific pathways students can select that are within these six.

Figure 1

Career Clusters Through CTE



Note. College & Career Ready Graduation Pathways.

Work-based learning (WBL) allows students to move out of the classroom and

experience one of the pathways listed firsthand. This WBL gives the students opportunities to see not only the careers they want to pursue but also the ones they do not enjoy. Besides internships and apprenticeships, WBL also hosts guest speakers, career days, and other events in which students can see a glimpse inside a career. Once a student narrows down their interest, they may then complete the application form to participate in an internship. The CTE department, along with the CDCs, works to align the student's interests to those of the business partners.

Problem Background

From the beginning, CTE has focused on training students to become tomorrow's workforce. In 1914, President Woodrow Wilson was led by Congress to develop a commission to investigate to see if federal aid was needed to support vocational education (Gordon, 2018). The commission, in a 500-page report, recommended to congress they pass a federally aided system of vocational education (Blunk, 2010b). The first federally funded provision for vocational-technical education was passed in 1917 and named the Smith-Hughes Act of 1917 (Hayward & Benson, 1993).

Later the Smith-Hughes Act of 1917 evolved and became known as The Perkins Act of 1984. This act has been through several updates and revisions, with the latest being passed and signed into law in 2018 by President Donald Trump. Perkins V Act is a reauthorization of the Perkins IV Act of 2006 and includes indicators of program quality that contain postsecondary credits and credentials relevant to CTE or participation in WBL (Smith & Boyd, 2018).

WBL includes activities such as job shadowing, internships, and apprenticeships. WBL is a component in the North Carolina comprehensive local needs assessment to

show evidence of positive student impact (Career and Technical Education, 2020).

Through internships, students learn about themselves by determining what interests them. They discover what job opportunities exist and can guide their education and career goals. Students build connections through internships that will help pave the pathway to lead them to their desired careers as they step into real life (Depaty, 2019).

Statement of the Problem

The CTE director is looking for data to determine the effectiveness of internships in helping students to determine a career choice and to build an educational plan designed to pave the path to that career. A program evaluation of the internship program will be beneficial to the CTE department in accomplishing this task. To make sound policy decisions that drive the program, the CTE department needs quality information concerning the relative effectiveness of this program (Fitzpatrick et al., 2011). There is not a lot of feedback data to let the leadership team know how the internship benefited the student. Long-term benefits are the desire. Data from students who have participated in the program will be invaluable information moving forward. Fitzpatrick et al. (2011) said that the difference between an evaluation and research is that research strives to add knowledge in the field, whereas an evaluation strives to provide useful knowledge to those who need to make a judgment or decision. A program evaluation of the internship program will be beneficial to the CTE department when setting policies and procedures that help guide future CTE students into internships more aligned to their future schools or career pathways.

It is important to the CTE administration that data exist so they can confidently place students in internship programs that have proven to be beneficial to that student's

career choice and thus strengthen the entire CTE program. The desire for strengthening CTE programs is resurging due to the public need for industries to build community-based workforces that strengthen the local economies (Perkins Collaborative Resource Network, n.d.). The industries need a highly technical and skilled workforce. Local manufacturers have expressed their struggle to find workers with these skills. These manufacturers are willing to host interns and even pay for their higher education in exchange for their skills (Gold, 2020). The local CTE program wants to partner with these manufacturers in creating a strong workforce of skilled high-paid workers. This evaluation is designed to provide data that open a clear pathway for this program to be successful.

Purpose of the Study

The purpose of this qualitative methods study is to identify areas in the CTE internship program where the internships might not be meeting the goals of the program. Specifically, I wish to identify the impact CTE internships have on student decisions in their pursuit of a career in the field of the internship.

Theoretical Framework

The district's internship program currently starts when a student expresses the desire to participate in an internship. Either the student or the CDC finds an appropriate internship that matches the student's interests, and an agreement is made stating the hours and length of the appointment. The student then participates in the internship following the guidance of the site coordinator and site supervisor. When complete, an assessment is made, and data are collected. This assessment holds the student and the site accountable to the basic intent of the internship. Later, the student graduates and moves on to either a

college or a career future.

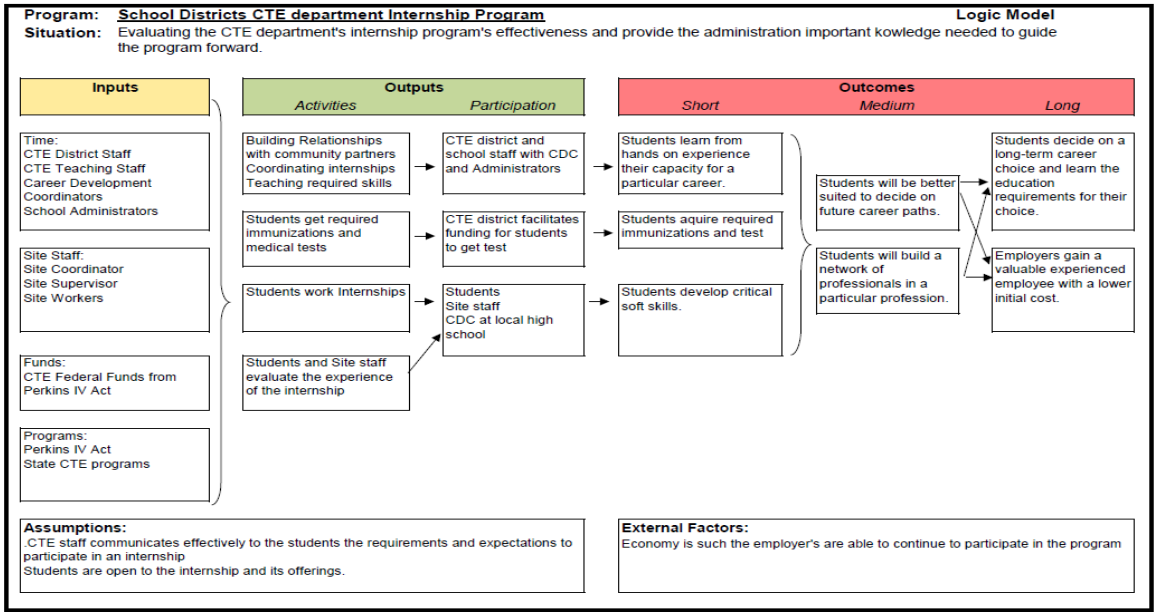
Currently, the goal of the internship program is to give the student a hands-on experience upon which to base their career and educational decisions. The experience of participating in a high-quality, on-the-job internship program helps the students develop skills that are useful in any career they choose to pursue. They learn communication skills that give them the confidence they need to believe in themselves. They learn professional skills so they will represent professionalism when working with customers. Students also learn how to work with other people. Team-working skills are crucial in most work areas (Ismail, 2018). The desire of the internship program is that the student learns these skills and then follows the CTE career. This would include a college and degree path to a career or straight to a long-term career choice. This study, along with the use of a logic model, uses a deductive reasoning model to analyze the data.

Internship Program Overview

This district's CTE program, following the guidance of state and federal program standards, oversees many high school courses throughout the county. The courses are geared to be an initial spark in a student's interest as well as a full-blown certification program in a field. The internship program is geared to take a student's interest and give them the opportunity to participate in on-the-job training and experience firsthand what it is like to work in that career. It is the CTE courses that create the interest; it is the internship that tests that interest. Figure 2 illustrates the internship program using a logic model.

Figure 2

Internship Logic Model



Inputs

The basis of the district's internship program comes from the umbrella of the CTE program itself. The Perkins V Act controls the money flow and regulates the program for all states. Money allocated from the Perkins V Act is distributed in North Carolina between secondary and postsecondary schools. Two thirds of the money is distributed to secondary schools, whereas one-third goes to postsecondary schools. Secondary schools include both middle and high schools, whereas postsecondary schools include the community colleges offering CTE programs. The State Board of Education allocates funds designated for secondary schools using a formula that is based on the number of individuals ages 5-17 who reside in the individual school districts who are eligible for Title I and are from families considered below the poverty level (Career and Technical Education, 2020).

The North Carolina CTE department, a subsidiary of NCDPI, provides programs that arrange for students to explore their future options inside the classroom as well as outside the classroom, which includes internships (Career and Technical Education, n.d.). The local school board then approves a budget that includes CTE funds and their allocations. The CTE budget then must allocate funds first to cover the salaries of all staff, including teachers and assistants, and then to cover programs. Internships are just a small portion of all the programs the CTE budget must fund.

Each internship must be tied to staff at the work site. Work site staff include the site coordinator, who is the communication link between the school, CTE department, and the work site. The coordinator assigns each intern to work under a site supervisor. These two people could be the same person, if needed. The site supervisor oversees the daily work completed by the intern. Then, usually, the intern must intermingle with current site employees and work with them day in and day out.

On the other side of the coordination, the CTE department consists of the director, who oversees the budget and all programs that fall under CTE along with the CTE staff who work every day to support the CTE programs within the district. The CTE staff include the financial secretary, who manages purchasing as well as making sure the budget is sufficient for upcoming programs. Other staff include program coordinators who oversee various categories of programs within the county. Part of the staff's obligation is to foster relationships between the school system and the local businesses. These relationships culminate with financial assistance, material assistance, as well as learning opportunities for students. Opportunities include student workdays, tour groups, apprentices, and internships.

Other inputs include the high school staff. The school administrative staff oversee the CTE teachers teaching the programs at the local high schools. Each school's CDC is there to help the teachers work with the students on career development, including helping coordinate the internships.

Outputs: Activities

A key activity in the internship program is the relationship between the community work partners and the school system. These community partnerships are constantly being built and groomed by the CTE staff. The results of these relationships are opportunities for internships as well as information from the community as to their needs. The needs of the community often translate into programs the CTE staff need to add. Some of the work sites in which the interns are placed require students to have certain immunizations and tests prior to starting the internship. These include things like TB tests and hepatitis immunizations. The CTE department funds these tests for the student.

At the completion of the internship, there is a series of evaluations that take place. The site staff will evaluate the internship as well as the intern. This gives vital information about the placement of the interns and the type of interns who work for that site. The student also completes an evaluation of the work site. This gives the CTE staff information to see if future training of the site staff needs to take place.

Outputs: Participation

The CTE district and local school staff, including the CDC and administration, work to build relationships with the community partners that allow internships to function. The CTE district staff help facilitate and fund the required immunizations and

tests students must complete prior to starting the internships. Other participation includes the student performing the internship, the site staff overseeing the internship, and the CDCs at the high school initiating the internship.

Outcomes: Short-Term

The internship program's short-term outcomes include immediate outcomes. When the student needs immunizations and tests in order to start an internship, the short-term outcome is that the student receives these tests and immunizations. If the CTE district and school staff, along with the CDC and school administrators, build relationships with community partners, students learn from hands-on experiences if this field is a match for their personality. Sometimes the outcome is that the student finds this field of study is not for them. The question then becomes, was there a legitimate reason, or was the reason because someone along the way failed to complete their part? Other times, the student finds that this is the field of study for them and continues to pursue education and training to continue in this field.

Another short-term outcome from students working in the field in real workplaces is that students then develop the much-desired soft skills needed to be productive members in the real world. Soft skills are a requirement for students to become eligible for recruitment and job success (Singh & Jaykumar, 2019).

Outcomes: Medium-Term

Other longer-term outcomes include students being better suited to decide on their future. A result of completing an internship is students gain knowledge of the careers associated with the internship. Good or bad, the experience of the internship is valuable. Students learn from the internship that they either want to pursue the career through the

necessary training or they do not want to pursue the career at all. Either way, the students are better informed of their career decisions.

If the student decides to pursue a career from an internship, another medium-term outcome is that the student builds a network of professionals in that profession. The network of professionals becomes a support system for the intern as they move from the education realm to the workforce.

Outcomes: Long-Term

One of the long-term goals for the CTE internships is that the students will learn from their experience in the field and be better prepared to make decisions that affect their future career choices. These students must decide whether to go directly into the job market, a 2-year community college to learn a trade, or a 4-year college or university. Their experiences will help direct them into a career they find interesting and rewarding, either by giving them insight into that career or insight into a career that they do not want to pursue.

A second long-term goal for the CTE internships is that the community employers who participate in the internship program gain a valuable list of experienced potential employees. This lowers the cost of finding employees and getting them ready to be productive members of their team. Interns have been trained and know the ins and outs of the business. The interns are ready, if willing, to become the next generation of employees.

Research Questions

This study addressed these three primary questions:

1. What impact does participation in the district's CTE internship program have

on students' future career trajectory? (qualitative)

2. How does a CTE graduate perceive internship experiences are best designed and implemented? (qualitative)
3. What are the perceived barriers to high school students choosing CTE pathways? (qualitative)

Significance of the Study

Sparks (2017) in an article published by Education Week discussed male students who participated in the internship program. These male students were 23 percentage points more apt to attend college and 21 percentage points more apt to either have earned an associate's degree or to be 3 years into a degree in a 4-year college or university 3 years after high school.

CTE essential standards in North Carolina state that the CTE internship has a course number of CS97 and state,

> A CTE Internship allows for additional development of career and technical competencies within a general career field. Internships allow students to observe and participate in daily operations, develop direct contact with job personnel, ask questions about particular careers, and perform certain job tasks. This activity is exploratory and allows the student to get hands-on experience in a number of related activities. The teacher, student, and the business community jointly plan the organization, implementation, and evaluation of an internship, regardless of whether it is an unpaid or paid internship. (Public Schools of North Carolina, 2019, p. 20)

The local CTE department wishes to make data-informed decisions on the

internship program. A program evaluation of the internship program will provide the necessary data to further develop this program into its intended purpose, to help students explore career choices. The program evaluation will clear the path for any high school student to smoothly select an internship that ties to their interests and that will help develop that student's ability to embark on a path that leads to a successful and fulfilling career.

Limitations of the Study

The limitations of this study were identifying contact information for students who fit the desired profile. These students have graduated high school and moved on to either colleges or the workforce. It was exceedingly difficult to find either phone numbers or email addresses so interviews or surveys could be performed. It was the desire to continue sampling the population of students who have participated in CTE internships until we reached a level of saturation.

Definition of Terms

Apprenticeships

An agreement between two parties where one person learns an art, trade, or job under the other (Merriam-Webster, n.d.).

CTE

The practice of teaching job-related skills used in careers across the nation to students from middle school through postsecondary institutions (Schultz, 2022).

Cooperative Education

A method of bringing together education based in the classroom and paid, realistic, and useful experience in the workforce that also provides academic credit for

this experience (Georgia Institute of Technology, n.d.).

Internship

The position of a student or trainee who works in an organization in order to gain work experience or satisfy requirements for a qualification, sometimes without pay (Lexico, n.d.).

Program Evaluation

The evaluation of a program's value (worth or merit) based on identification, clarification, and application of defensible criteria (Fitzpatrick et al., 2011).

Conclusion

An article from the Community College Daily from 2020 showed that the students who started school in 2009 participated in a CTE course within their first 3 years at a rate of 77% of America's high school students, and only 37% of those students chose to concentrate in a CTE program of study (Ashford, 2020). In North Carolina, that number has been declining since 2016 (Perkins Web Portal, n.d.). There is a push with *Perkins V* to increase these numbers. Administration in this district sees the need for data to inform critical decisions on the future of the internship program. I am working with the director of CTE. He has asked for research to collect the needed data (see Appendix A). This study analyzed the current program and collected data to guide the program in the near future. This program evaluation into the internship program provided information that can be used by the administration to install programs that will make this process a smooth process.

Chapter 2: Literature Review

Overview

The purpose of this study was to give insight into the administration of the school system. The district's CTE director wants to know what steps are needed to move forward and make the high school internship program the best it can be. Students often participate in internships but do not follow the career path for reasons I am looking to discover. This chapter looks at what the research says about internships throughout history and how it applies to CTE in high schools.

History of Internships

The modern-day internship got its start in the 1920s when it was determined that an internship with a practicing medical team would benefit medical students (Taylor Research Group, 2014). However, the history of internships does not start there. Modern-day internships are an evolution from the guild system that was strong in the Medieval Period. The origin of the word guild comes from the Saxon word *gilden*, which means "to pay" or "yield." The guilds were like trade unions, and members were expected to contribute to their overall finances or give a monetary contribution (Cartwright, 2018).

Guilds during the medieval time were set up to protect the merchants and craftsmen. These towns were outside the political, military, and social system in medieval Europe, so there were no laws or anything that governed the economy. Each town created a guild including the craftsmen and the merchants within that town. All of the economy was regulated by the guild. They even governed the social sector by establishing schools, promoting the Catholic church, and hosting the social clubs (Sparkes, 2016).

In the next few centuries, guilds specializing in crafts began to appear. These

guilds were handling quality control over the goods being created, regulating the member's working hours, and approving new members. These members made up three classes. There were the masters, who were the skilled craftsmen; the journeymen, who owned and operated the shops; and the apprentices, who worked for room and board while learning the trade. They hoped one day to move up the ladder and eventually become masters (Sparkes, 2016).

Early apprentices in colonial New England were assigned to work with a master who oversaw their training as well as taught them basic reading, writing, and grammar. These apprentices were incredibly young poor children who were indentured to their mentors. As the economy improved during the industrial revolution, legislation helped standardize apprenticeships. The Pennsylvania Railroad started a graduated wage scale in 1865 for their apprentices (NC Community Colleges, 2017). States began regulating apprenticeships in 1911 with Wisconsin being the first (U.S. Department of Labor: Employment and Training Administration, 2004; Wisconsin Apprenticeship Advisory Council, Bureau of Apprenticeship Standards, 2011). The Fitzgerald Act was established in 1937, and it brought apprenticeships under the federal government umbrella to be regulated by the U.S. Department of Labor. This act provided for the states to register and administer the apprenticeship programs (JFF, n.d.).

Internships have evolved over the last century. The word intern was used first in the 1920s to describe medical students (Taylor Research Group, 2014). The Fair Labor Standards Act of 1938 (FLSA) established the right to a minimum wage, and overtime was established (Waxman, 2018). FLSA established the rules employers were to follow when determining whether or not an intern was to be compensated. The "primary

beneficiary test" has been identified by the courts as the seven factors the employer must consider when deciding on the compensation for the intern (U.S. Department of Labor: Wage and Hour Division, 2018). These seven factors are

1. The extent to which the intern and the employer clearly understand that there is no expectation of compensation. Any promise of compensation, express or implied, suggests that the intern is an employee – and vice versa.
2. The extent to which the internship provides training that would be similar to that which would be given in an educational environment, including the clinical and other hands-on training provided by educational institutions.
3. The extent to which the internship is tied to the intern's formal education program by integrated coursework or the receipt of academic credit.
4. The extent to which the internship accommodates the intern's academic commitments by corresponding to the academic calendar.
5. The extent to which the internship's duration is limited to the period in which the internship provides the intern with beneficial learning.
6. The extent to which the intern's work complements, rather than displaces, the work of paid employees while providing significant educational benefits to the intern.
7. The extent to which the intern and the employer understand that the internship is conducted without entitlement to a paid job at the conclusion of the internship. (U.S. Department of Labor: Wage and Hour Division, 2018, para. 3)

However, courts have ruled this to be a flexible test and that no one factor determines if a

student or intern is an employee and therefore subject to FLSA's rules of compensation (Pardoe, 2016; Rosenbaum, 2015; Schroeder, 2017).

FLSA established some interns must be paid as an employee, whereas some are unpaid as a student. As an employee, the student is entitled to all the rewards and benefits of an employee.

Internships offer a vast variety of opportunities to students in high school in a host of fields. The New York Times (2017) listed in their Education Life section the top 20 fields for internships. The top 10 fields included in order were business operations; marketing; engineering; sales and business development; media, communications, public relations; data analytics; finance; I.T. development; arts and design; and project and program management (The New York Times, 2017).

Importance of Internships

Importance to Students

Internships can greatly help pre-college students gain experience and give a competitive advantage to these students when seeking full-time jobs. In January 2014, a survey was conducted that included 4,769 high school and college students and more than 300 employers from across the U.S. The results of this survey showed that 60% of employers agreed that students who wish to compete for internships and jobs in the future need to start focusing on their careers in high school. Ninety percent of those surveyed agreed that internships can help students get into better colleges (SHRM Online Staff, 2014).

For a high school student about to be a college student, paid internships are important. Paid internships help students be prepared for the future without the burden of

financial strain (Sharma, 2016). Oklahoma City University has an internship budget worksheet. One student participating in an internship in New York City estimated even with a $1,000 stipend provided by the employer and internship funding from the university, they would still have to work from the end of the spring semester until the start of the internship as a full-time server at a local restaurant to earn enough for the difference (Oklahoma City University, n.d.).

Depaty (2019) listed four benefits of internships: (a) learning about oneself, (b) finding opportunities in the job market, (c) building a professional network, and (d) stepping into real life. Through an internship, students will find areas that work for them and areas that do not. In applying for internships, students realize how many possible job opportunities there are and which ones might fit their personality. An internship will help students build a base of contacts who will reach out to the intern if they have a position and believe the intern is a good fit. An internship will also let students see what real life is like after starting a full-time job (Depaty, 2019). Internships can benefit students by giving them valuable work experience they can then include in a resume or college application. Internships can help identify what the students like to do and what they do not like to do. Being able to make clear decisions can have a financial benefit by saving money invested in obtaining a degree in a career student does not like. There is tremendous educational benefit from an internship by hands-on experience as well as feedback from supervisors and coworkers. Internships allow students to create a network of contacts who may help them when finding a job. Some internships can also provide financial compensation (Hussein, 2018; Salpeter, 2014). Interns can land a job at the same company after completing their college education or at least find a good mentor in

that career field (Keaton, 2018).

Importance to Businesses

Businesses listed the top reasons for providing internships to high school students were to support local high schools (46%), find new ideas (23%), and locate college interns in the future (18%; SHRM Online Staff, 2014). One key to a successful business is to have engaged and satisfied employees. It is important to hire and retain the talent necessary in order to be successful in this digital age (Levine, 2018). Investing in an internship program allows a company to find future employees by creating a pool of possible employees to fill needed positions. The interns who come through the building allow a company to "test-drive" the talent prior to investing in an employee who just does not work out (Chegg Internships, 2019). Genesys Works, a national workforce development nonprofit company says, "Young people ages 16 to 18 are digital natives who innately understand the latest technologies" (Jones, 2019, para. 7). High school students are still trying to navigate their ships toward success. They are longing for the surest vessel for the journey (Koenig, 2022).

Importance to the School

Successful CTE programs are designed to interest the students. The U.S. Chamber of Commerce Foundation said that in a well-designed, successful CTE program, "students have lower dropout rates, higher test scores, higher graduation rates, higher postsecondary enrollment rates, and higher earnings than students who do not enroll in CTE offerings" (D'Alessio, 2017, para. 4). The best CTE programs create partnerships with industry and invite members to participate in their advisory committees. Through these partnerships, they are able to provide a variety of internships (Mumm, 2018). High

schools that provide internship opportunities for their students give the students a pathway to discovering what they want to do with their lives. The students learn the pros and cons from the professionals in the career. They can boost their resumes by earning experience before college. During and after college, having a network to support career goals is a valuable tool for a student. Internships help students achieve these benefits. Students also earn the respect of adults (Larracilla, 2021).

What was an alternative education model to linkages to the world of work through experienced-based instruction in the 1980s (Treadway et al., 1980) has transformed to become the mainstay through CTE. New standards in California high schools include a CTE pathway as a measure for college or career preparedness (Khudyakov, 2019).

CTE History

CTE began early in the development of the United States. The earliest New England vocational schools were established to promote the vocation of ministers (Ogden, 1990). The Old Deluder Satan Act of 1647 prepared the way for public schools in America. This act required levels of education based on the number of families. Towns with fewer than 50 families had to employ and maintain a teacher who would teach reading and writing. Towns with 100 or more families were obligated to maintain a grammar school for which its main purpose was to prepare students to attend Harvard College (Carleton, n.d.; Hazlett, 2011). Budgeteer (2011) said this act was our forefathers' legislated version of their own "No Child Left Behind" Act. Vocational education continued through the use of apprenticeships, allowing the masters to train the apprentices in the trade industry.

Teaching people in slavery to read was forbidden in the 1830s in the southern

states (Education Broadcasting Corporation, 2004). Apprenticeship programs were being used to circumvent these laws. Slaves learned the skills that allowed them to work for former slave owners (Smith, 2015). The Tuskegee Institute and the Hampton Institute were established to enable African Americans to follow this path. Booker T. Washington was in support of vocational education, which he felt would be a pathway for African Americans to integrate into U.S. society.

Booker T. Washington walked from Malden, West Virginia to Hampton, Virginia, where he was trained at the new Hampton Institute which was established by Samuel Armstrong after the Civil War with the purpose of educating freed slaves. Washington continued there 2 years after graduation as a member of the faculty (Frantz, 1997). At that same time, a former slave named Lewis Adams and a former slave owner named George W. Campbell started the Tuskegee Institute and invited Washington to be the first principal (O'Connor, 2009). Tuskegee Institute started as the Normal School for Colored Teachers but later became the Tuskegee Normal and Industrial Institute modeled after Washington's Hampton Institute experience (O'Connor, 2009). Washington closely coordinated the academic classes with occupational training, including foundry, printing, shoemaking, and sawmilling (Frantz, 1997).

The American Federation of Labor, which was formed in 1886 by a grouping of smaller craft unions (ushistory.org, 2020), gave approval to the National Association of Manufacturers' promotion of trade instruction schools (Gordon, 2018). President Woodrow Wilson was led by Congress, through the urging of the National Association of Manufacturers in 1914, to appoint a commission to see if there was a need for federal funding to support vocational education (Gordon, 2018). The Commission on National

Aid to Vocational Education with Senator Hoke Smith as the chairman was organized in 1914. In a 500-page report, the commission presented its findings to Congress. These findings recommended a federally aided system of vocational education based on state aid and cooperation (Blunk, 2010b). This report led to the passing of the Smith-Hughes Act of 1917, which was the first federal funding provision for vocational-technical education (Hayward & Benson, 1993).

The Smith-Hughes Act of 1917 originally provided $1.7 million for 1917-1918 and promised continued support. This amount grew to $7.2 million by the 1925-1926 year (Friedel, 2011). The Smith-Hughes Act mandated states to set up a state board of vocational education. This mandate caused some states to create a second board governing public schools, creating a separation of vocational education from mainstream education courses (Friedel, 2011; Ritchie, 2009). The provisions separated vocational funds from curriculum, education students, teacher training and professional development, and student organizations (Friedel, 2011).

The George-Reed Act of 1929 extended and amended the Smith-Hughes Act of 1917. The George-Reed Act increased vocational education funding by $1 million yearly between 1930 and 1934 as well as added an independent division for home economics (A New Association is Born, 2002). The George-Ellzey Act again increased funding for vocational education by $3 million annually for 3 years. In 1936, vocational education services received authorization for $12 million by the George-Deen Act (Blunk, 2010b). The George-Deen Act prompted President Roosevelt to appoint the advisory committee of 24 members with Dr. Floyd Reeves as chairman to study vocational education (Dass, 2014).

The George-Barden Act of 1946, otherwise named the Vocational Education Act of 1946, appropriated $34 million for the items included in the George-Deen Act. It also included appropriations for state boards of vocational education to fund the state director's salary and expenses, vocational counselor's salary and expenses, programs used for training and work experience, and out-of-school youth programs and travel expenses such as the New Farmers of America and the Future Farmers of America (Blunk, 2010b).

Vocational education was further expanded in 1963 with the Vocational Education Act. This act widened the definition and included programs for business and commerce as well as services for disadvantaged and disabled students (Gordon, 2018). Further expansions were made in 1968 and 1972. Title IX of the Education Amendments of 1972 made it illegal to discriminate on the basis of sex in any federally funded education program or activity, which included vocational training (U.S. Department of Education, 2021).

President Ronald Reagan's National Commission on Excellence in Education issued The Nation at Risk: The Imperative for Educational Reform. This report led to the Carl D. Perkins Vocational Education Act of 1984 (Friedel, 2011). The Perkins Act through five revisions is still in place as of this writing with Perkins V.

The first Perkins Act continued to focus on access for women, minorities, and special needs students (Kister, n.d.). Perkins II, in 1990, expanded the job-related efforts of the federal government. Perkins II expanded to include "applied technology" in the name (Blunk, 2010a).

The third amendment to the Perkins Act was in 1998 and designated as Perkins

III. Perkins II added accountability; however, Perkins III substantially enhanced performance appraisal language to the bill requiring states to assess how effective the states are in achieving progress in vocational and technical education. The core indicators of performance were negotiated between the secretary of education and each state. The core indicators included student attainment of skill proficiencies, student attainment of credentials, student continuing on through postsecondary education, and student participation in programs leading to nontraditional training and employment (Skinner & Apling, 2006).

In 2006, the Carl D. Perkins Vocational and Technical Education Act of 1998 was reauthorized and revised again. This time it included a name change. The new act of 2006 was named the Carl D. Perkins Career and Technical Education Act of 2006, better known as Perkins IV. Perkins IV reinforced accountability by adding performance measures that require grantees to meet at least 90% of their adjusted levels or implement an improvement plan. This act linked CTE funding to academic standards required under the Elementary and Secondary Education Act (ESEA). Perkins IV was authorized from 2007 through 2012 (Dortch, 2012).

On July 31, 2018, President Trump signed into law the next reiteration of the Carl D. Perkins Act of 1984. Perkins V strengthened CTE for the 21st century and continued the commitment to CTE providing nearly $1.3 billion annually (Perkins Collaborative Resource Network, n.d.). Perkins V required states to include indicators of program quality into their measures of performance of secondary school CTE concentrators. These indicators included postsecondary credits and credentials relevant to CTE or participation in WBL experiences (Smith & Boyd, 2018).

The picture of CTE looks different depending on individual states. The Perkins V Act gave each state the flexibility to develop their own CTE programs to suit their needs and align with job needs in each state. There are built-in accommodations for current industry trends and needs, as well as individual community needs (Canney, 2018). The North Carolina state plan for CTE splits the funds with 66.67% going to the secondary program (including fifth- through eighth-grade middle schools), and 33.33% going to the postsecondary program. The goals for North Carolina, in its strategic plan that went into effect in 2020, are by the year 2025 to have eliminated the opportunity gaps between students, improved school and district performance, and increased educator preparedness to meet the needs of every child (Career and Technical Education, 2020). The North Carolina CTE vision states, "Every public school student in North Carolina will be pushed to accept academic challenges, prepared to pursue a fulfilling pathway after graduating high school, and encouraged to become lifelong learners who will engage in a globally collaborative society" (Career and Technical Education, 2020, p. 7). One key component in the implementation of North Carolina's CTE plan that exists in all areas is WBL, such as job shadowing, internships, and apprenticeships. WBL is also one of the components listed in the comprehensive local needs assessment that is used to show evidence of positive student impact (Career and Technical Education, 2020).

Current Trends in CTE

In 1994, school districts, parents, and students from five low-wealth rural counties sued North Carolina and the State Board of Education, in *Leandro v. State*, arguing their students were not receiving a sufficient education (WestEd et al., 2019). The Supreme Court of North Carolina ruled that every child in the state has a constitutional right to a

sound, basic education. This court case has been in and out of court for over 20 years. In 2018 the courts appointed WestEd to recommend specific action needed by the state to comply with *Leandro v. State* (Kinlaw, 2020). WestEd's 301-page report was released in 2019 (WestEd et al., 2019).

With extensive research from multiple areas, WestEd et al. (2019) collected and coded interview data from more than 60 public-sector leaders, seven county-level administrators, and six NCDPI staff members. Focus groups were organized and included five Regional Education Service Alliance directors, 33 local school board members, and 50 local school district superintendents, as well as the chief financial officers of 12 North Carolina school districts. They performed three case studies of schools in advantaged and disadvantaged communities. The data were compiled along with the data collected through NCDPI and created an action plan that summarizes the findings and describes the challenges in meeting the requirements of this case. This report provides specific recommendations the state needs to take to move forward (WestEd et al., 2019).

Currently in North Carolina, there is a push to further integrate CTE course pathways with traditional pathways. One of the measurements for college and career readiness is students completing a CTE program or earning industry credentials. High-quality CTE coursework is included with the college preparatory coursework accountability model. CTE instructors are encouraged to follow the same "best practices" that all teachers perform throughout the state. Career and Technical Education (2019b), through the CTE Curriculum and Instructional Management, provides schools with a computerized system that can be used to

- Understand the essential standards for the courses;

- provide instructional techniques and ideas teach the essential standards;
- provide all assessments;
- create documentation on all student achievement and growth;
- provide accountability data;
- use data to complete instructional planning;
- assess students' achievements using 21st century technology methods;
- use aggregated and disaggregated reports by student, by class, by teacher, by school, by LEA, and by state;
- encourage community involvement of business, administrators, and teachers; and
- participate in professional development.

NCDPI has provided the following components:

- development of the essential standards with validation by business and industry;
- course design and development;
- new course design and revision using the Revised Bloom's Taxonomy;
- over 100 course blueprints containing 21st century content developed by teachers and reviewed by business and industry;
- electronic classroom and secure test item banks and performance assessments aligned to essential standards for courses; and
- curriculum guides developed or adopted for use containing instructional activities and instructional support materials. (Career and Technical Education, 2019b).

The North Carolina CTE state assessments provided by NCDPI are used to meet the requirements of North Carolina's CTE federal plan under the Perkins Act, to meet Standard 8 of the school executive evaluation process, and to provide EVAAS data for Standard 3 of the North Carolina teacher evaluation process (Career and Technical Education , 2019b).

These CTE curriculum criteria are far different than the vocational education offered 20 years ago. Vocational education consisted of woodworking, home economics, and auto mechanics. These were all good skills for students to obtain coming out of high school. CTE courses lead students to complete their high school graduation, higher education, and meaningful middle class jobs in skilled trades and applied sciences and technology (Weingarten, 2015). CTE is pushing to overcome the vocational education or "Voc Ed" stigma that has been around for many years. Voc Ed was for students who were not in the college prep pathway. Voc Ed was considered academically weak, specific skills imparted, and jobs were most often low-wage and low-skill (Holzer & Baum, 2017).

Impact of CTE on the Labor Market

Employers are looking for more than employees who are just trained for one specific job. Boston Consulting Group posted their research looking at online job postings collected from Burning Glass Technologies for the year 2018, which showed that the skill mentioned the most, 6,181,000 times, was for potential employees to have basic customer service (Strack et al., 2019). Customer service skills are often considered soft skills (Indeed, 2020). Soft skills are said to include critical thinking, strategic thinking, ethical awareness, professionalism, leadership, time management, teamwork,

problem-solving, communication (verbal, listening, and writing), and influencing others (Viviers et al., 2016). The need for soft skills has been around for a while. In a 2011-2012 American Community Survey, job postings for jobs traditionally open to both those with a degree and those without show strong evidence that employers are desiring potential employees to have a bachelor's degree (Burning Glass Technologies, 2014). Employers were hopeful that having earned a bachelor's degree will also translate to having learned soft skills. That is not necessarily the case.

More and more corporations are looking for skills that can be obtained with nontraditional education (Connley, 2018). Industry is looking for workers who have soft skills that do not go out of date, as well as technology skills (Schroeder, 2019). College degrees are no longer the certification employers are looking for. Employers are trying to overcome the skills gap by looking at credentials. There are new companies that sell digital products to help build these credentials in skills that employers are wanting. These credentials are both in technology and soft skills. There are numerous places that issue postsecondary credentials, the question is, "Which ones count" (Blumenstyk, 2015)?

CTE is attempting to address these issues. With Perkins V in place, CTE instructors are having to step up their game. They are combining the technology instruction with the higher order thinking skills required (Career and Technical Education, 2019a). Through North Carolina's CTE program in the school year 2018-2019, there were 276,114 credentials earned by high school students. Table 2 shows the top five areas certifying students in technical skills as well as soft skills (MacDonald, 2020).

Table 2

Top Five Credentials Earned by NC High School Students 2019-2020

Credential	Counts
Microsoft Office Specialist 2016 or above Word	11,721
Microsoft Office Specialist 2016 or above PowerPoint	9,451
Conover Credential Workplace Readiness	7,319
EverFi	6,097
CPR/AED	3,926

Note. WorkKeys was not assessed due to COVID restrictions and is a career readiness assessment published by ACT given to students who are identified as CTE concentrators. Conover Credential Workplace Readiness is a research-based soft skills assessment and training system to better prepare individuals for the workplace.

Nationally, CTE consists of 79 career pathways within 16 different career clusters for college and career ready graduates. States have the flexibility to configure their own programs. Table 3 shows the career clusters offered in North Carolina along with information about each of those clusters.

Table 3

North Carolina CTE Career Clusters

Cluster	Information
Agriculture, food, & natural resources	The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, and natural resources.
Architecture & construction	Careers in designing, planning, managing, building, and maintaining the built environment.
Arts, audio/video technology, & communications	Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.
Business management & administration	Careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.
Finance	Planning and related services for financial and investment planning, banking, insurance, and business financial management.
Government & public administration	Planning and executing government functions at the local, state, and federal levels, including governance, national security, foreign services, planning, revenue and taxation, and regulations.
Health science	Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.
Hospitality & tourism	Preparing individuals for employment in career pathways that relate to families and human needs such as restaurant and food beverage services, lodging, travel and tourism, recreation, amusement, and attractions.

(continued)

Cluster	Information
Human services	Preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care, and consumer services.
Information technology	Building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.
Law, public safety, corrections, & security	Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.
Manufacturing	Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing process engineering.
Marketing	Planning, managing, and performing marketing activities to reach organizational objectives such as brand management, professional sales, merchandising, marketing communications and market research.
Science, technology, engineering, & mathematics (stem)	Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.
Transportation, distribution, & logistics	Preparing, management and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment, and facility.

Note. Adapted from West Shore School district, New Cumberland, PA, Career Fields, Clusters & Pathways, Information Sheet 2020.

Career pathways in North Carolina are designed to help students achieve basic

skills in reading, writing, and mathematics, along with the ability for the student to work as part of a team as well as independently, use creative thinking, be problem solvers, and use 21st century technology (Career and Technical Education, n.d.). The most effective CTE programs have business partnerships that provide authentic work opportunities (both as internships during high school and full-time jobs after graduation) for students, a strong tie between academic subjects and the technical fields, and well-prepared educators with externship opportunities for professional development (Weingarten, 2015). Internships provide opportunities for students to apply classroom knowledge and skills in a realistic environment while learning about a particular industry or occupation (Career and Technical Education, 2019b).

Internships give employers a pool of applicants with whom they already have a relationship. Employers can take advantage of these internships by using them as a cost-effective recruiting strategy. This pool of applicants allows the employers to screen trainees, looking for those who have the skills necessary to perform the duties required for the job (Pologeorgis, 2019). Internships for high school students can be paid or unpaid, can have high school credit or not have high school credit, and can lead to full-time employment or not. It all depends on the situation. Unpaid for credit internships must show that the intent is educating the intern rather than receiving free labor along with the other six parts of the primary beneficiary test (U.S. Department of Labor: Wage and Hour Division, 2018).

Currently, onsite, hands-on internships have been put on hold due to the COVID-19 pandemic restrictions. U.S. News reports that 41% of employers shortened their internship lengths and 46% are shifting their internship programs to a virtual format

(Friedman, 2020). However, having an intern work remotely will test a student's ability to be resourceful and work with distributed teams, their communication and problem-solving skills, and their initiative during this time of remote activities (University of Michigan University Career Center, 2020).

Knowledge and Experience

When students go out into the real world and experience their education rather than observe it as a bystander, the knowledge gained through the experience is valuable (Jones, 2010). High school is sometimes tough to navigate. It would help with that navigation if a student could just go out and sample all the career choices that are available, something like sampling the fudge at the local fudge shop. Sampling a career does not work that easily, but there are avenues that can help. Knowledge is a powerful thing; the more we get, the more power we have. Knowledge is one benefit of a high school internship.

The benefits of being involved in internships during high school can be broken down into four categories: leadership and skill development, career exploration, networking and establishing mentors and references, and building a resume (Depaty, 2019). For a high school student, the benefit of narrowing down the wide vast of career fields is significant. High school students, through internships, can learn all the ins and outs of a career from the inside, working alongside a professional in the field. They can make sure the workplace matches their personality (Maio, 2021).

Students who participate in internships gain leadership and skill development that fit the career. These students are enlightened to the understanding of how the curriculum they learned in high school fits in the real world. A student working alongside

professionals in the field can gain a skill set that is most valued by employers but difficult to learn in high school. As stated above, one of the most needed skill sets to have in the workforce is soft skills. Through working in an internship, students are able to learn and practice their soft skills (Sun, 2018).

Early in their time in high school, students have the daunting task of deciding if they are going to work toward college or career. Traditionally, students had to choose either or. With CTE, students can prepare for both at the same time. The old adage, "It's not what you know, but who you know," may not be totally true but does hold some significance. Who a person knows related to their career is important. Students need to know people who will help them along their journey to adulthood. Students who participate in internships while in high school get a head start on building their network of contacts (The College of St. Scholastica, 2018).

Internships in the late 1970s were not as readily available as they are some 50 years later. Students gained experience only when someone was willing to take a chance on their ability. Starting salaries for fresh out of high school, or even college, students were extremely low compared to those who have been in the career a while. Employers would promise advancements quickly if performance was up where it needed to be. Internships can provide students the experience, sometimes paid, that builds resumes and creates a path for their future (Sun, 2018).

Internship Struggles

There is a group of people who exist in our society who struggle to work in groups, need quiet to concentrate, take time making decisions, and use their imaginations to work out a problem, among other things. This group of people are introverts (Ellis,

2020; Maher, 2019). This population comprises nearly half of the people in the United States (CAPT, 2003). Sometimes, they are considered shy. Networking for these students is a struggle. There are, however, strategies that can help overcome this hurdle to having a successful internship and make the most of networking opportunities. Monikah Schuschu (2017), a senior blogger for the CollegeVine blog, a one-stop shop for information for college-bound students, listed these strategies to make the most of networking opportunities:

- **Start where you are.** Use the relationships you already have and work first on developing the sorts of connections that naturally present themselves in your life.
- **Practice identifying and describing your interests and goals to others.** The more those around you know about what you are invested in, the more they will be able to offer suggestions and help you make useful connections.
- **Come prepared.** Keep an accurate, professional-looking, up-to-date resume on hand. Create and maintain a LinkedIn profile, as we discuss in our post "How to Make An Effective LinkedIn Page", which can help you to identify potential networking opportunities as well as create a positive web presence linked to your name. (As a bonus for introverts, a well-crafted public profile creates lower-stress opportunities for you to get noticed by potential connections.)
- **Play to your strengths.** When you have a choice, choose methods of communication and self-promotion that make it easier for you to maintain confidence, communicate effectively, and demonstrate your strengths.

- **Stay organized.** Keep personal records of who you have talked with, what they do, and what was said in your conversation, including any suggestions your connection made. If you promise to send someone your resume or check in again in a month, leave yourself a note or set a reminder on your phone to actually do it. Compounding introversion with procrastination will only make it more difficult for you to build working relationships with others.
- **Rehearse networking interactions.** Rehearsing how to act when networking may sound silly, but it can actually help to practice with friends or family. You can even write down your intended introduction and explanation of your interests and refer to that document when rehearsing — which can help you refine your approach and hit all the important points. (This type of introduction is sometimes referred to as an "elevator pitch.")
- **Challenge yourself with specific, measurable goals.** Do not expect to become an expert overnight — instead, set appropriate intermediate goals and work on them regularly. If you only manage to email one possible connection the first month, that's better than nothing, and it's a step in the right direction! (Schuschu, 2017, Section 3)

Schuschu said, "Being introverted or shy can definitely make networking harder, but at the same time, networking is a skill that can be learned" (para. 16).

Indecisiveness is a trait of high school seniors (Germeijs et al., 2006). Argyropoulou et al. (2007) said, "There are four factors that contribute to career indecision: absence of structure, need for career guidance, diffusion of interests, and personal conflict" (p. 1). There are some high school seniors who know what they want

to do and have not wavered since they were young. On the other hand, there are those who are still in college and cannot make up their mind. In a data point published by the National Center for Education Statistics (NCES, 2017), there was an average of 32.4% of college students who had originally declared their majors and had changed majors at least once by the time they were juniors. Some areas had higher percentages than others; 35% of the students who had declared their major to be in the STEM area had switched. That included an average in natural sciences, mathematics, engineering and engineering technology, and computer science, with mathematics being the highest at 52% (NCES, 2017). Internships can help students decide which fields they do not want to enter, however deciding which ones they do want to enter is a bit more difficult.

Internships would be much more successful if students had guidance from research as to what fields they wanted to pursue, but that just does not happen. One of the benefits of high school internships is that they help the student make choices. Unfortunately, that is also one of the struggles in having a successful internship.

Each high school in this study has a CDC on staff. Their job is to help the CTE students with the path they need to take to develop the career of their choosing. As stated above, one of the issues is knowing what career they are choosing. The CDC contacts local employers early to identify those willing to partner with the educational system to ensure strong candidates are available when they need employees. More businesses are willing to partner with local schools and offer opportunities for youth than for youth with disabilities (Carter et al., 2009). Data collected from previous interns will help guide the CDCs in their guidance.

One of the struggles in getting employers to commit to a partnership is the

employer's training costs along with wages for the intern and the time and effort of supervisors and mentors (U.S. Congress, Office of Technology Assessment, 1995). The School to Work Opportunities Act (1994) established a national framework for states to use to develop school-to-work opportunity programs. The School to Work Opportunities Act provided $300 million in federal grants to states for developing their programs and plans. This money is distributed to each of the states and all U.S. holdings upon request as funding to support programs within the states to support, along with other school-to-work opportunities, students' navigation of ways to obtain productive and progressively more productive and worthwhile roles in the workplace (School-to-Work Opportunities Act, 1994). The beginning of the 21st century showed in a particular study that three of six firms showed positive net benefits, and it was suggested that the others' net costs could have been outweighed by long-term benefits (Bailey et al., 2000). Bailey et al. (2000) went on to say the costs associated with internships included the overhead cost of administration and supervisors' and mentors' time, the salaries of the intern, and other costs such as tools and materials. These costs can be a struggle for the companies participating in the student-to-work programs such as internships. CDCs, armed with past intern data, can help the partnering companies make decisions regarding offering internships.

One challenge for CTE programs is to build a network of employers who are willing to accept the cost of an intern as a recruitment cost. Businesses with a strong partnership with local schools can strengthen their brand and enhance their image. Accepting interns can be a sound business practice. Employers can pay interns to work as part-time employees, eliminating the costs of certain benefits of a full-time employee.

The employers can build a pool of potential hires whom they have already vetted for the job (SHRM, 2020). There is a benefit to partnering with local schools and providing opportunities for students to get a feel of a career field prior to graduating high school. The issue is getting them to understand that.

The process of determining the career interest of high school students can be quite daunting. The struggles to prevent a student from clearly identifying their interest can be two-fold. Career decisions are present although not considered to be related to indecision because career decisions can play a role throughout their career and not just during education. Educational decisions play a significant role. More specifically, it is educational barrier-coping efficacy that is related to indecision (Fort & Murariu, 2018). It is up to the entire educational system to build a student's ability to cope with educational barriers.

In 1995, employers were stating some of the issues with becoming involved with WBL were legal issues with insurance and child labor and safety laws (U.S. Congress, Office of Technology Assessment, 1995). Employers can offer paid internships, counting the intern as a regular employee, or unpaid internships following the federal regulations on Fact Sheet #71's six criteria listed under FLSA (Parrott, 2017). As a regular employee, the intern is covered under both the company's liability insurance as well as their unemployment insurance. The company does need to make sure they follow the federal child labor rules established by FLSA. Federal guidelines under FLSA are enforced by the wage and hour division. Employers not only have to follow these but also must follow the state guidelines. Under the federal guidelines, 16- to 17-year-old students may work unlimited hours as long as the overtime rules are followed and they are not performing a

job listed as a hazardous job. Students under 20 who are eligible for minimum wage can be contracted for the first 90 consecutive calendar days for as little as $4.25 per hour as a youth minimum wage under the federal guidelines.

In North Carolina, the minimum wage for learners, full-time students, messengers, and apprentices is 90% of the minimum wage as established by FLSA. Further criteria for youth under 18 years of age exist in North Carolina as they must have a youth employment certificate and are restricted from working between 11 p.m. and 5 a.m. if they have school the next day. This rule can be exempted for 16- and 17-year-old students if the employer obtains written approval from the youth's principal and the parent or guardian.

There are some exclusions in the North Carolina law. Wage and Hour Act (2017) states that youth can be exempt from the stated rules found in Subsection B as long as they are at least 16 and are participating in a practice experience in an occupation that is supervised by the employer. They must be enrolled in a school, either public or nonpublic, and that school must be partnering with an employer that offers supervised practice experience toward that occupation. The employer must submit to the commissioner of labor the written agreement between the employer and the public or nonpublic school. This agreement must include at least these five items:

1. The work is incidental to the youth's supervised, practice experience for the occupation.
2. The work occurs occasionally and for short amounts of time.
3. The work is completed under direct close supervision of a qualified and experienced person.

4. Safety instructions and training are given to the youth before performing the work by the employer.
5. A schedule of organized and progressive work processes to be performed by the youth has been created by the employer and given to the youth (Wage and Hour Act, 2017).

Summary

CTE has come a long way since the guild system from old England. The importance of worker training has not changed much. We still find importance in training our youth for a career of their liking. Internships help in finding the interests of the student by eliminating fields in which they are not interested or finding the exact fit. Internships are just a piece of the whole CTE program. Students who are concentrators are taking multiple classes in a specific area. They will know by the end if that is something they will want to be doing in 40 years, maybe. A high percentage of students still are changing their minds by their junior year of college. Internships allow the student to become involved with the career field prior to investing time and money in earning a degree in that field that they may not like in the end.

Employers who partner with high schools to offer internships must be willing to invest in the intern. This investment can be a worthwhile investment compared to other recruiting efforts that fall short. CTE departments across the country are working hard to recruit employers who are willing to make the commitment to partner with high schools and their students in work programs. These partnerships can include job shadowing, guest speakers, internships, and apprenticeships. It depends on the size of the commitment. Some companies are all in and see the partnership as a pool of potential employees.

Others are more reluctant and just test the water a bit first. Companies that are willing to host an intern must consider the legal issues that go along with internships. Internships can be paid or unpaid. If they are not willing to pay an intern, the company must make sure the program is an educational program for the student.

CTE departments are working hard to advertise and promote internships and the benefits they have for both the students and the businesses hosting them. There is still much to be done. American Student Assistance is a nonprofit that works to give students opportunities to gain experiences (Arundel, 2022). American Student Assistance surveyed 840 high school students in 2020, and 79% said they were interested in an internship but only 3% were able to experience one. Data from the survey also relayed that only 33% of the students had even heard about the opportunities (Arundel, 2022). Campaigns to build the visibility of CTE and its programs do work. In 2015, the American Federation of Teachers (2021), a union of professionals, used its innovation fund to invest in CTE efforts in four communities across the U.S. In Pittsburgh, the partnership set five goals: improve recruitment, communicate the vision, open a new emergency response technology program, create and build partnerships with the community, and collect and analyze CTE demographic and marketing data. For 3 years the CTE's image grew. There are 15 half-day programs in six high schools that offer a 3-year course sequence. These programs have approximately 500 students enrolled. There are over 3,900 students who are taking CTE electives to build foundational skills and discover new career paths. Certifications earned by these students rose from 319 in the 2017-2018 school year to 574 in the 2020-2021 school year. It dropped some during the 2019-2020 school year due to the COVID-19 pandemic but bounced right back the next

year (“Supporting Career and Technical Education in Peoria and Pittsburgh,” 2021).

All the efforts the school system in Pittsburgh put forth took time and collaboration of all involved. It took a team of people, including the mayor, the city council, the community businesses, the education union, the school board, the school administration, the CTE teachers, the parents, and the students.

This is just one example of what concentrated efforts in promoting and building a CTE program can provide. It takes collaboration to promote and build the CTE program and, in particular, internships. Making the successes more visible and known in the community builds the program. The more the community of businesses knows and the more the community of parents knows about CTE programs, the more they will want to be involved.

Chapter 3: Methodology

Internships are a crucial part of the CTE curriculum and are backed by support from the federal government through the Perkins V Act passed in 2018 (Perkins Collaborative Resource Network, n.d.). The problems arise when the internships are for high school students who are unsure of what their life goals are and are placed with companies who are unsure of their role. This study is designed to evaluate the internship program in one North Carolina school district's CTE department so the leadership may make informed decisions that affect the program. The data collected from this study may be used by the staff so they may be able to help guide future interns in having a successful internship and continuing in that field as a career. Through these data, I was able to identify the impact these internships have on student career choices and education paths after high school.

This chapter identifies the methods that were used to collect the data and analyze them to find answers to the research questions. This study was designed to use qualitative research methods to identify students, past and present, who have experienced the internship process. Once identified, subjects were contacted through an emailed survey, and data were obtained in the subject's own words that pertain to their internship.

Research Setting

This research comes from a school district in western North Carolina. This district has six traditional high schools, one alternative education high school, one early college, and two designated as cooperative innovative high schools. There are seven middle schools, four intermediate schools, and 21 elementary schools. There are 51.2% males and 48.8% females; 70.6% of the students are White, 16.2% are Hispanic, 6.8% are

Black, 4.3% are multi-racial, 1.3% are Asian, .4% are Native Hawaiian/Pacific Islander, and .3% are American Indian. The academically or intellectually gifted program makes up 14.2% of the population starting with third graders. The district employs 55.3% licensed employees and 44.7% non-licensed. There are 294 National Board classroom teachers and 83 other licensed staff with National Board certification. The county had 53.9% of the students receiving free or reduced lunch.

The CTE department had over 3,200 students earn industry-recognized credentials and 1,100 high school students earn articulated credits through the Regional Articulation in Career and Technical Education program. Over 850 middle school students, teachers, and staff visited area businesses, industries, and governmental agencies during Students@Work week and established a new apprenticeship program with the North Carolina Department of Labor and the school system. Departments joining the efforts are school nutrition, transportation, and maintenance, and support career and technical student organizations like DECA, FCCLA, and TSA. CTE thrives in the county with a 98% graduation rate for the CTE concentrators.

Research Questions

This research addressed three research questions:

1. What impact does participation in the district's CTE internship program have on students' future career trajectory? (qualitative)
2. How does a CTE graduate perceive internship experiences are best designed and implemented? (qualitative)
3. What are the perceived barriers to high school students choosing CTE pathways? (qualitative)

Research Design

The purpose of this qualitative research program evaluation was to determine if the district's CTE internship program's implementation is meeting the goals. The goal of the program is for all students to learn from their experiences while developing critical soft skills. Students should be able to build a network of adults in the field that interests them who can become mentors as their careers build. It is the intention that students will be better suited to decide on future career paths as a result of the internship. A qualitative data collection method using a logic model to determine cause and effect was used to determine results related to the program's impact on the student.

Program evaluations have been around for many years, becoming popular with educational programs in the late 1800s (Fitzpatrick et al., 2011). The logic model gives a conceptual map of the outcomes that are expected as well as the inputs necessary to produce these outcomes (Alter & Murty, 1997). The logic model used in this research was created by interviewing the CTE staff and determining the whole process of the internship program. The inputs were derived from the list of stakeholders given and the outputs and outcomes were developed from the goals of the program.

By using the logic model, it allowed me to evaluate the program based on the program outcomes (Fitzpatrick et al., 2011). The evaluation looked at the outcomes and what the students responded in their survey to determine what was happening in the program and to determine the success or failure. Each survey question was tied to one or more research question so an overall image of the data could be viewed. Data analyses and an interpretation of the data are tied to the research questions (Fitzpatrick et al., 2011).

Role of the Researcher

I am a public high school CTE educator in the district being studied. I have been teaching in this district since 2004 and have been in CTE for the last 4 years. Prior to that, I taught mathematics in the middle school setting. Programming computers for 20 years as a previous career, I see the importance of students becoming involved in workplace learning in the field they wish to pursue. Students who are able to learn through hands-on methods really learn skills that last a lifetime. The research questions were designed to determine if this experience while in high school gives the students focus on their educational direction and helps eliminate unnecessary time and money spent and subsequently to determine student perceptions of the design and implementation as well as any barriers that might exist.

Participants

The population being studied is high school students who participated in an internship in District ABC schools in North Carolina through the CTE program. I chose to focus data collection on students whose contact information could obtained and who participated in internships while in high school within the last 5 years. I first obtained an email list from the CTE director of students who fit the bill. First, he sent me current students who have taken an internship. The issue with that was some were under 18 years of age. He then sent me a longer list of students who graduated between 2016 and 2021 and participated in an internship. Data were collected by first contacting the parents of the students for whom I had an email address. I asked them for their child's current email and sent the survey out to all whose emails I had obtained. My goal was to collect a sample size of 100 students. When I did not get enough emails from the parents of past

students, I sent a survey out to current seniors who have taken an internship and are over 18.

Instrumentation

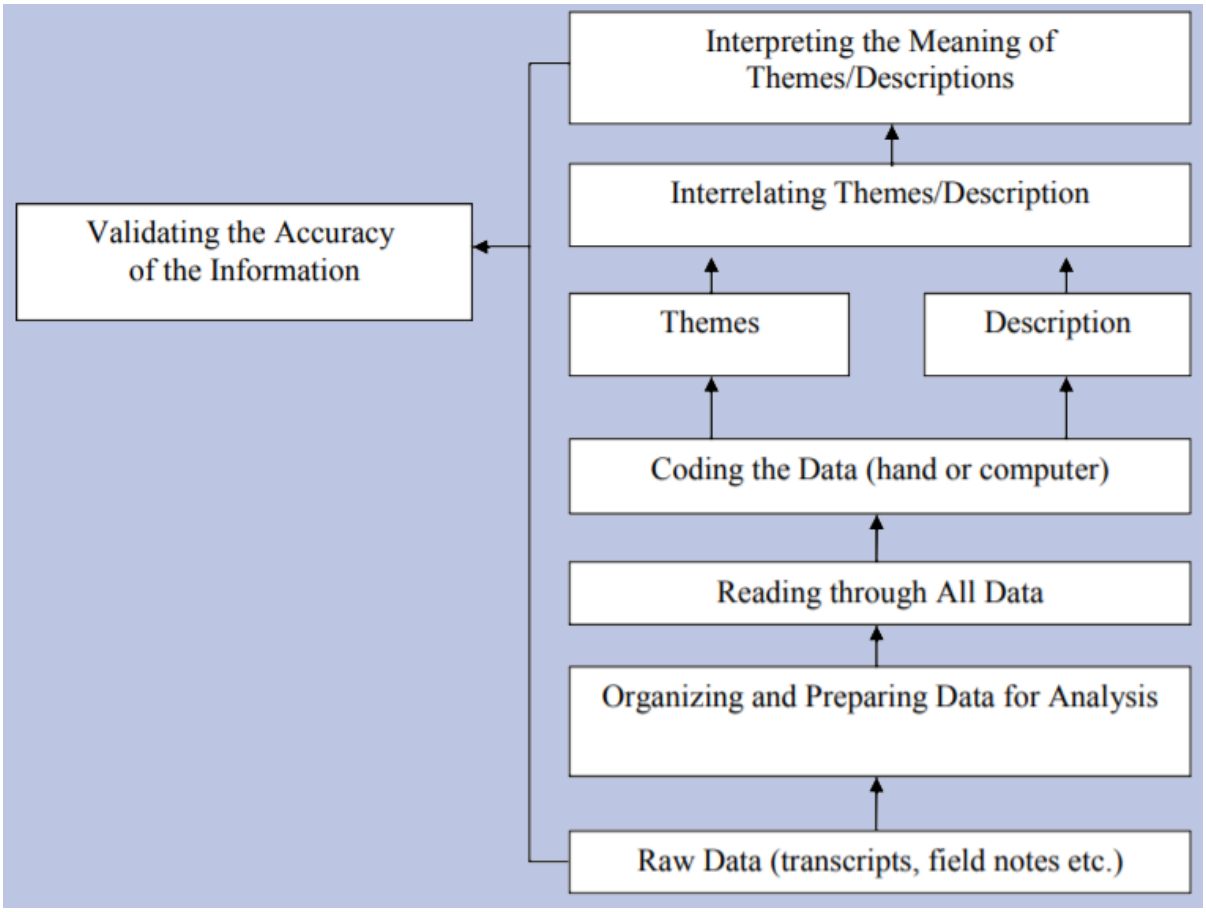
I sat down with the CTE director of District ABC and discussed the survey instrument I would be using. I had him review the questions, and we discussed the medium. From this, I was able to create the survey I used to collect the data. This survey could be administered either verbally over the phone as an interview, through electronic means as a survey, or through the U.S. postal service as a survey. See Appendix B for the survey instrument. The first nine questions are about student background and the quality of their internship. Survey Question 10 asked whether they went to college or university or if they went straight to the workforce. Depending on the interviewee's answer to that question, Questions 11-13 are geared for those students who took the college or university path, and Questions 14-16 are geared for those who skipped the college or university path and went straight into the workforce. Question 17 is reserved for those who have chosen a different path after school.

Data Analysis Plan

Data analysis in a qualitative study requires breaking down the data collected and organizing it by theme (Creswell, 2014). Creswell (2014) said that qualitative data analysis should follow these six steps from the specific to the general which includes analysis at different levels. Figure 3 shows the analysis process through these steps.

Figure 3

Data Analysis in Qualitative Research



Note. Image adapted from (Creswell, 2014).

Step 1 is to organize the data and prepare it for analysis. This process requires the researcher to transcribe all data and arrange it into type categories that depend on the source of the information (Creswell, 2014). Step 2 is to get an image of all the organized data in order to find a general sense of the data collected and to get a picture of what the participants are relaying (Creswell, 2014). Step 3 is to code the data. This process is organizing the data into chunks and categorizing the chunks (Creswell, 2014). Step 4 is using the coding process to generate themes that are derived from the data. These themes then can be used to derive the theoretical model (Creswell, 2014). Step 5 is to use a

narrative to describe the themes and the findings of the analysis (Creswell, 2014). Step 6 is to narrate what the lessons learned were (Creswell, 2014). These six steps allow the researcher to navigate through the data from the initial review of the data through the conclusions. The data collected from the survey instrument allow the researcher to focus on specific items and answer the research questions. Table 4 shows how the data collected align with the research questions. Survey Questions 1 and 2 were asked to obtain background information to determine the student's age when completing the internship.

Table 4

Data Collection Alignment With Research Questions

Research question	Alignment
1. What impact does participation in the district's CTE internship program have on students' future career trajectory? (qualitative)	Survey Questions 12, 13, 14, 15, 16, 17, 18, 19, 20
2. How does a CTE graduate perceive internship experiences are best designed and implemented? (qualitative)	Survey Questions 4, 5, 8, 9, 10, 11, 15,
3. What are the perceived barriers to high school students choosing CTE pathways? (qualitative)	Survey Questions 3, 4, 5, 6, 7, 9, 10, 15, 16, 17, 18, 19, 20

All items on the survey instrument align directly with the research questions and give a larger scope for analysis of the perceived barriers to students choosing CTE pathways.

Data Management

Data collected from this research study are completely anonymous and kept

confidential. Data were entered directly into the electronic database by the participants in the form of a survey. No identifying information was maintained and stored. The online electronic database, some with Qualtrics and some with Google Form, will be kept on a secure, password-protected computer.

Threats to Validity

Internal

A major internal threat to this research was the number of available samples from students who have graduated from high school and moved on. Contact information for these students was limited, and extensive research was completed to try to obtain email addresses for these students. Unfortunately, in this day and age of cyber security issues, parents were reluctant to give out their child's current email addresses. This made data collection difficult.

External

The research was conducted in a suburban school district with six traditional high schools and four alternative high schools. That sample area is minor compared to the high school internship program in the United States. The procedures of administering the internship program in this district may be different in other districts and states. The varying practices cause the results of this research to only apply to this district.

Summary

The CTE program has been around for a long time. The benefits of CTE programs are well respected and desired as indicated by Congress's reauthorization of the Perkins V Act in 2018 to provide nearly $1.3 billion annually for the nation's youth and adults (Perkins Collaborative Resource Network, n.d.). A key component of high school CTE

programs is WBL. WBL includes both internships and apprenticeships. Internships in high school provide students with insights into career and education decisions that they must make when they graduate. Successful internship programs not only allow students to give careers a “test drive,” but they also give valuable academic training that can be used to advance either in a career straight out of high school or to advance in coursework for educational opportunities.

Today’s school districts rely on CTE programs to reduce the dropout rates as well as to help prepare students to become college and career ready. Using a qualitative method, I will be reporting the results of this research to one district’s CTE administrators and showing areas they can concentrate on to make their program the most successful it can be.

Chapter 4: Results

Introduction

In 2018, President Donald Trump signed into law the reauthorization of the Perkins IV Act of 2006, which is now titled the Perkins V Act. This reauthorization emphasized the commitment to CTE in the United States. In the current *NC CTE Course Inventory and Essential Standards* book, the word internship appears 322 times within the 182-page document (Career and Technical Education, 2021). This shows that internships are a major part of CTE. In the 2015 Public Perception of Manufacturing Report, it was reported that on average, 43% of all CTE students plan to pursue a career in the CTE field in which they were studying (Manufacturing Institute, Educational Research Center of America, Skills USA, 2015). When asked what data he needed, the CTE director of District ABC told me he wanted to know any barriers that would prevent students who have taken a CTE internship from pursuing a career in a CTE field.

CTE has been in operation in public schools since the first federally funded provision for vocational-technical education was passed in 1917 (Hayward & Benson, 1993). The focus has always been on providing hands-on applicable education in fields that are important to the local communities (Career and Technical Education, n.d.).

To get started collecting data, I asked the director for a list of students who have graduated and completed an internship. This seemed to be a difficult question. The director went to his staff and asked for the list. The first list I received had 100 students who were currently juniors or seniors who had taken an internship. I went back to him and explained that in order to complete the study, I needed to survey students who have moved on from high school to see what they are doing now. The second list I received

had 218 students who graduated from 2016 to 2021 and completed an internship. This list had student names and parent contact information only. I had a few parent emails and phone numbers but not more than 25%. I was able to first send out an email to 50 of the 218 parents to request their student's email addresses. I expressed the importance of this study and my role as a researcher and teacher in the district. I received two responses with email addresses from the 50 I requested. I then found a service that for a fee would text a mass text to a group of phone numbers. Current data show that less than 40% of household phones are landline phones (Richter, 2021). That means of these 215 phone numbers I had, approximately 129 were mobile phones capable of receiving text messages. I sent a text to all 215 phone numbers asking for their student's current email addresses so I could invite them to complete my survey. I received more do not contact responses than I did actual email addresses. In all, I received a total of 10 student email addresses.

I emailed a survey invitation to all 10 of these students. I had one student actually go in and start the survey. They answered what high school they attended and when they graduated but none of the information data questions. After all this, I had 0 data points. I even had one parent express that my contacts were boarding on harassment and to stop contacting her. This all leads to the limitations of the research, which are addressed in Chapter 5.

Another avenue I tried was contacting all the high schools' CDCs. I asked them if they had any contact information for any of the students who had graduated. Of the six CDCs in the county, I received responses from two. One of the responses was from someone who has been at three different high schools as their CDC over the last few

years. She did not have any contact information for past interns. The other response stated that they had the parent's phone numbers but that was all. I already had that information; it did not help.

I also contacted the CTE director and stated that I needed his help. I told him about the struggles of getting student contact information. He said that when they conduct the concentrator survey, they run into the same issues. He could not help finding student information.

Linkedin.com is the world's largest professional network, which is now owned by Microsoft (LinkedIn, n.d.). I went into LinkedIn and searched for everyone on my list of past graduates. I was able to find the profiles of 26 of the 218 students on my list. Unfortunately, when I reached out to the 26 profiles to connect, only a few connected, and none of them completed my survey.

Data from my list of students and contact information showed that I had found 18% of the students' LinkedIn information and 5% of their emails and received 3% "do not contact" responses.

After the bust with this list, I went back to the current students and surveyed the seniors who were over 18. The data in this research come from those.

Research Questions

Internships are an important part of the CTE program. Finding data to drive the programs of the internship, I gathered data from the result of these three questions:

1. What impact does participation in the district's CTE internship program have on students' future career trajectory? (qualitative)
2. How does a CTE graduate perceive internship experiences are best designed

and implemented? (qualitative)

3. What are the perceived barriers to high school students choosing CTE pathways? (qualitative)

Student Survey

The student survey instrument is designed to collect qualitative data. All but one of the questions after the demographic information are open-ended questions. After discussing the information needed with the CTE director, I transferred the survey to the Qualtrics distribution system so the data could be completely anonymous. Qualtrics is a survey distribution software that allows researchers to build and distribute anonymous survey questions. It then controls the data subjects' data entry and compiles the data (Qualtrics XM, n.d.).

In order to increase the population of this study, the original current student list was reexamined; 53 of the 99 students were seniors. The current survey through Qualtrics was designed for students who had already graduated from high school and had already moved on into their pursuit of a career either through the workforce, college or university, or another avenue. In order to use this survey with the 53 students, I needed to modify it slightly to accommodate students who were currently seniors or who had just graduated and not moved on. The logistics of modifying the Qualtrics survey required the faculty of the university to own the edits and share them with me to distribute.

I decided then that I would simply convert the Qualtrics survey into a Google Form with which I had experience and send the request for data to these students using their current school email. The original Qualtrics survey was then converted into Google Forms with some slight modifications. See Appendix C for the survey instrument. The

survey now asked the students what their plan was after graduating from high school. This data can still be valuable information.

After the data collection was completed, I invited 64 students to complete this survey, either the Qualtrics or the Google Forms (N=64), and received only seven responses. The research's data on population and participation are seen in Table 5.

Table 5

Survey Population and Participation

Survey recipients	Surveys distributed	Survey responses	Percent participation
Students who have already graduated high school	7	1	14.3%
Students who are currently seniors	53	6	11.3%
Total population	60	7	11.7%

Table 5 shows that overall, only 11.7% of the population actually participated in the study. However, based on response percentages, the students who had already graduated had a 3-percentage point higher response rate than those who were currently seniors. Students were given a month to respond and received a reminder email after 1 week. I collected the qualitative data and began compiling the data based on the methodology outlined in Chapter 3 and analyzing the results, looking for common trends and themes. The data were then viewed through the lens of the logic model.

Results From Student Survey

There were two surveys that were slightly different. The later survey distributed by Google Forms added a first question to qualify the respondents. That question was

designed to make sure all data points were from students who were over 18 and had graduated from the district being studied (see Appendix C). The rest of the questions were basically the same as the Google Forms version asking the students what they did or plan on doing, and the Qualtrics just asked what they did (see Appendix B for Qualtrics survey).

Survey Items 1, 2, and 3. The first three questions asked from which school and what year they graduated and when they participated in the internship. Students needed to be from the district being studied and to have graduated within the last 7 years. The data from these questions are shown in Table 6.

Table 6

Survey Question 1 Includes School Where Internship Was Taken

School	Total number (n)	Percentage (%)
High School A	1	14.3%
High School H	4	57.1%
High School I	2	28.6%

Of the seven responses, 14.3% were from High School A, 57.1% were from High School H, and 28.6% were from High School I. Data show that all the participants were from District ABC.

Table 7 includes information from survey data derived from Survey Question 2. This question asked the students what year they graduated from high school. This, along with the first question the students were asked (Are you over 18?), was a way to make sure the sample population was over 18 to adhere to the IRB.

Table 7

Survey Question 2: Graduation Year

Graduation year	Total number (n)	Percentage (%)
2016	1	14.3%
2022	6	85.7%

The data show that 14.3% of the respondents graduated in 2016, whereas 85.7% were seniors and graduating this year.

Table 8 shows the breakdown of when the students completed the internship. Some of the students completed more than one internship, so the number of samples is a little higher for this one.

Table 8

Survey Question 3: Schedule of Internships

Grade	Fall	Percentage (%)	Spring	Percentage (%)
Sophomore	0	0	1	7.7%
Junior	1	7.7%	2	15.4%
Senior	6	46.2%	3	23.1%

Note. (N=13) Some students completed more than one internship.

As shown in Table 8, the sample size of this table is slightly larger than the others. Two students participated in more than one internship. One student participated in five. Those are included in the table, increasing the total count to 13. Most students were in their senior year when completing the internship. The one student who completed five

internships started in the spring of their sophomore year and participated each semester throughout their high school career. Only one other student completed an internship outside their senior year; it was in the spring of their junior year.

Qualitative Data Analysis

The rest of the questions in the survey were open-ended questions pertaining to the internship, how it affected their career choices, and what choices they have made. It asked how prepared the student felt, what their duties were, how supportive the staff at the internship were, and if they thought the internship was a valuable experience. Each question asked for supportive data for their answers. The qualitative analysis approach for collecting and analyzing data was used in order to give the participants a voice and to gather and understand the meaning individuals or groups attribute to a particular social problem (Creswell, 2014). I collected all the data and then organized it according to the questions. The data were then analyzed by question to identify any relationships there may have been between any of the variables.

Findings of Research Question 1

Research Question 1 stated, "What impact does participation in the district's CTE internship program have on students' future career trajectory?" This question ties to Survey Questions 12-20. All the responses but one stated they have already or plan to attend a college or university after their high school graduation. The one student was planning on continuing working for the same company they completed their internship with and taking a gap year from college for their mental health and would hopefully return to higher education soon. Based on the structure of the survey instrument, this student was not able to answer the questions pertaining to how the internship affected

their career trajectory.

Question 12 asked the students what they did or what they plan on doing after high school. Table 9 shows the results of that question.

Table 9

Student Responses to Survey Question 12

Participant	Student response	Key ideas
Student 1	I attended or plan on attending a college or university	Higher education
Student 2	I attended or plan on attending a college or university	Higher education
Student 3	I attended or plan on attending a college or university	Higher education
Student 4	I followed or plan on following another path	Gap Year
Student 5	I attended or plan on attending a college or university	Higher education
Student 6	I attended or plan on attending a college or university	Higher education
Student 7	I attended or plan on attending a college or university	Higher education

The latest valid data from the American Community Survey data are from 2019. The Census Bureau recommends against using the American Community Survey data from 2020 due to the effects of the COVID-19 pandemic. These data say that in North Carolina, 41% of people aged 18-24 are enrolled in a postsecondary institution (MyFutureNC, 2019). This is up from 38% in 2006.

Data in Table 9 show that most of the responses either did or plan on attending a college or university following their high school graduation. However, caution must be taken when drawing conclusions about the effect internships have on students continuing to a college or university. The limitation of this study is the small percentage of

responses. Those students who chose not to participate in the study could be the students who did not go on to a college or university.

Survey Question 13 asked students what degree they either pursued or were planning on pursuing in college or the university. Students were only able to get to this question after they answered Survey Question 12 saying they were going to a college or university. This question was designed to tie the student's career trajectory to their internship in order to see if they were planning on following the same career as their internship. Table 10 shows the student responses to this question.

Table 10

Student Responses to Survey Question 13, Question 5, and Question 6

Participant	Student response	Internship	Department
Student 1	BA in communications and American sign language, master's in business management	Sim Group Consulting Engineers	Administration
Student 2	Biological and agriculture engineering	Heritage Farm Supply	Sales
Student 3	Fashion design/costume design	Sugar Cane Studios	Sewing
Student 5	Instrumental music education	North Windy Ridge Intermediate School	Band assistant
Student 6	Psychology	MAHEC & Mission Hospital	Multiple departments
Student 7	Fine arts or animation	A local pottery studio	Assistant potter

Analysis of this question as compared to the career associated with their internships showed that all of the students who either went or planned on going to a college or university either did major or plan on majoring in a field closely associated with the same field as their internship. State data for this information do not seem to exist. Most data that were found associate internships with college internships. The data do not extend to high school students; therefore, there is no data that we can compare.

The next survey question asked the students what career they followed after their college or university graduation or what career would they like to follow after they graduate college. Table 11 shows the response data for this question.

Table 11

Student Responses to Survey Question 14 and Question 6

Participant	Student response	Internship
Student 1	Assistant registrar at a small liberal arts institution	Administration
Student 2	AG engineer	Sales
Student 3	Fashion designer	Sewing
Student 5	High school band director with a focus on marching band	Band Assistant
Student 6	Pre-Med student attending an accredited medical school	OB-GYN, Family Medicine, Dental, Internal Medicine, Cardiac Care
Student 7	Career in the arts	Assistant potter

Data from Table 11 show that all of the students who are planning on going to or went to a college or university pursued a career that was in line with the internship they took while in high school. SkillsUSA, a career and technical student organization reported that 43% of all CTE students said they will be following a career that aligns with their current field of study (SkillsUSA, 2015). This does not translate to a percentage of students who participated in internships. They also reported that even though work-study programs and internships are first-rate methods to raise interest in the manufacturing field, fewer than 10% of the SkillsUSA members have had an industry mentor, completed a co-op study program, or completed an internship (SkillsUSA, 2015).

Question 15 asked students to state in their own words how they felt their experience in their internship helped guide their plans after graduating from their college

or university of choice. The purpose of this question was to tie all the previous questions into Research Question 1. Table 12 has all the responses to Survey Question 15.

Table 12

Student Responses to Survey Question 15

Participant	Student response	Coded responses
Student 1	The high school internship was invaluable. I learned new skills that would carry into my college career and beyond: I have a greater sense of professionalism, was able to utilize my networking/connections for future job recommendations, I established a confidence in the world of work, and experienced the pros and cons of customer service. My high school internship helped me realize I wanted to work with people, promote the transformative power of education, and manage my own department or small business.	• Invaluable • Sense of professionalism • Confidence • Utilize networking • Know good and bad
Student 2	It helped open my eyes no new career opportunities.	• Discover careers
Student 3	My internship was by far the best way to prepare me for future work and study in the field. This course let me find out what I wanted to pursue in life without wasting time.	• Prepare for future • Not wasting time
Student 5	The internship, along with being a drum major in the fall, allowed me to have a "test run" of what a career in music Ed could look like. Helped solidify my decision to pursue it as a career.	• Test run • Solidify decision
Student 6	My internship helped me discover the careers that I liked and the ones that I didn't like. It helped me discover what medical careers looks like behind the scenes and the hardships they've had to go through in order to get there.	• Know good and bad • Discover careers
Student 7	I will be taking ceramics courses now due to my sparked interest.	• Discover careers

The data from this question show that all of the respondents who went or were planning on going to a college or university responded positively that their experiences in their high school internship did in fact guide their plans after graduation. The key phrases that came out of that question were that the students felt the internship helped them to discover the career they were interested in, and it also helped them to discover careers they did not like so much. Completing an internship is a method to explore different careers due to the hands-on experience and the possibility of observing many careers (Sarikas, 2022).

Survey Question 20 completes the questions related to Research Question 1. This question asked those students who chose a different path what they plan on doing. The purpose of this question was to see if those students who are not choosing or did not choose to go to a college or university had a career trajectory and if it was connected to their internship. Table 13 shows the student responses to this question.

Table 13

Student Responses to Survey Question 20

Participant	Student response	Internship
Student 4	Continue working with my work, take a gap year for mental health, and hopefully return to higher education soon.	Educating and designing at Destination SPACE

There was only one student who fit this category. This student completed their internship with a company when they were a sophomore in high school and continued that work throughout their senior year. They stated that their plan was to continue working at the same company for another year and take a break from studying and

education. Their plan is to return to the classroom in a year or so.

There were no responses to Survey Questions 16-19, meaning none of the responses were students who went directly into the workforce. Six students, representing 86% of the responses, responded that they felt the internship helped them to define their career goals. The results from these survey questions show that student participation in internships does indeed have a positive impact on the future career trajectory of students.

One change for future research would be to include Survey Questions 13-15 even though they chose an alternative path. The one student who is taking a gap year could have valid data in these questions.

Findings of Research Question 2

Research Question 2 stated, "How does a CTE graduate perceive internship experiences are best designed and implemented?" This question was designed to elicit information about what the administration is doing correctly and what needs improvement. Survey Questions 4, 5, 8-11, and 15 are relative to this question. To get a better look at this information, Survey Question 8 is a Likert scale question with data ranging from 1 to 5. The question asked how well the student felt prepared when they started their internship. The values were 1–extremely unprepared, 2–unprepared, 3–slightly prepared, 4–well prepared, and 5–extremely well prepared. I analyzed this using a Fisher's Exact test 2 x 2 to test for an association between CTE courses students had taken prior to the internship and how well they felt they were prepared. Data from this question are shown in Table 14 as a 2 x 2 matrix. While gathering and coding the data, it was suspected that there was a relationship between the CTE courses taken and their degree of feeling prepared for the internship. To analyze this relationship, I used a

Fisher's exact test to determine if there was a significant relationship between these two variables. After completing the Fisher's exact test, it was determined there was not a statistically significant association between the two variables (two-tailed p = 0.1429). The data shown are organized in a 2 x 2 matrix so the Fisher's exact test can compare all the probabilities that would occur for each category.

Table 14

Descriptive Statistics Table

	Preparedness 1-3	Preparedness 4-5
Had CTE courses	0	4
Had no CTE courses	2	1

These data show that five of the seven students believed they were well prepared for their internship experience. Four of these students who felt prepared had taken CTE courses, while one of those who felt prepared did not. One thing that does come from this table is that two students, representing the students who felt less prepared, had not taken any CTE courses.

Survey Question 4 asked the students what CTE courses they had completed prior to taking their internship. This question's purpose was to see if there was a relationship between students who were more prepared by taking CTE courses and those who felt they had a successful internship. CTE closes the span between high school and post high school plans. The CTE curriculum includes training in career skills where students prepare for college or work (ASVAB, n.d.). The training for work is beneficial when a student is preparing for an internship. Table 15 shows the data collected for this question

from the student surveys.

Table 15

Student Responses to Survey Question 4

Participant	Student response	Key ideas
Student 1	Marketing Sports and Entertainment Marketing I Hospitality and Tourism Computer Science	• CTE courses matched internship
Student 2	AG 1+2 Animal Science 1+2 Drafting 1,2+3	• CTE courses matched Internship
Student 3	Introduction to Engineering and Design, Principles of Engineering, and Civil Engineering	• CTE courses matched internship
Student 4	Introduction to Engineering and Design, Engineering Design and Development, Principles of Engineering	• CTE courses matched internship
Student 5	No CTE. Took a band course cluster	• No CTE courses
Student 6	n/a	• No CTE courses
Student 7	none	• No CTE courses

The data from this question show that for those students who had taken CTE courses, a majority of the students completed internships that matched the courses taken. However, previous questions did show that the other students did complete internships that were aligned with their career interests.

Data for student responses to Survey Question 5 were included in Table 10 so it could be analyzed alongside Survey Question 13. The same data are also shown in Table 16 so it can be analyzed by itself and the coding from the responses can be shown.

Table 16

Student Responses to Survey Question 5

Participant	Student response	Key ideas
Student 1	Sims Group Consulting Engineers, PC	Matched student interest
Student 2	Heritage Farm Supply	Matched student interest
Student 3	Sugar Cane Studios	Matched student interest
Student 4	Destination SPACE	Matched student interest
Student 5	A local Intermediate School	Matched student interest
Student 6	MAHEC & Mission Hospital	Matched student interest
Student 7	At a pottery studio	Matched student interest

Survey Question 5 asked the students where they completed their internship with the intention of tying the CTE courses, the internship location, the department for the internship, the plans after high school, and the plans after college together in the analysis. The data from Table 16 show that all of the sample population completed an internship in a company that fits the student's interest.

Survey Question 9 asked the respondents if they had an on-site supervisor to whom they reported and if so to describe their experience under their leadership. Table 17 shows the data collected from this question.

Table 17

Student Responses to Survey Question 9

Participant	Student response	Key ideas
Student 1	Yes, my site supervisor was the office manager for Sims Group. She was friendly, supportive, and engaging.	• Yes - Good Experience
Student 2	No	• No
Student 3	Yes, they were amazing at helping me find and secure an internship	• Yes – Good Experience
Student 4	Personal, mutually beneficial, respectful, collaborative	• Yes – Good Experience
Student 5	Yes. My band director served as site supervisor. He gave useful tips on how to manage a classroom as well as helped me learn to create a lesson plan.	• Yes – Good Experience
Student 6	Yes	• Yes
Student 7	Yes, the potter she was very kind and helpful	• Yes – Good Experience

The data show that not all the internships had quality supervisors to whom the interns reported. Nazareth College (n.d.) published a document titled Professional Internship: Program Internship Supervisor Responsibilities. In this document, Nazareth College listed the responsibilities of the internship on-site supervisor. A supervisor needs to make sure that the internship experience is meaningful for the student. A supervisor must train the intern and provide them with the resources they may need for their position. A supervisor creates learning goals and objectives along with the student. A supervisor monitors the intern, making sure they are completing their tasks and staying

busy. A supervisor must evaluate the progress of the intern and provide feedback. A supervisor must allow for and provide opportunities for the intern to pick up more responsibilities, and a supervisor must communicate issues or changes in relation to the internship to the manager of the internship program (Nazareth College, n.d.).

One of the responsibilities of the supervisor listed above was that a supervisor must make sure the internship is a meaningful experience. Survey Question 10 asked the students to describe their duties and responsibilities during their internship. The data from the samples are listed in Table 18.

Table 18

Student Responses to Survey Question 10

Participant	Student response	Key ideas
Student 1	I worked with the company engineers, providing blueprint plans to architects. Organizing, filing, and pulling print plans for company meetings. Taking notes for engineers during meetings with architects. Basic Office Duties - Filing, answering phones, cleaning/organizing, greeting office guests.	• Engaging duties • Variety
Student 2	I ran a cash register, organized special order items, stocked shelves, completed yearly inventory, placed orders, answered customer and dealer phone calls	• Engaging duties • Variety
Student 3	Greeting, consulting, Cashiering, Hand sewing, Beading, Patterning, Cutting, Machine sewing and cleaning	• Engaging duties • Variety
Student 4	Mentoring students in space camps, designing robotic teaching kits and curriculum, assisting in financial decisions, and providing technical solutions.	• Engaging duties • Variety
Student 5	Room setup, leading musical sections, leading classes, organizing music	• Engaging duties • Variety
Student 6	To observe, ask questions	• Appropriate duties
Student 7	I was made to mix clay, clean, mix glazes, photograph the pottery, and help run her website	• Engaging duties • Variety

Coding the data collected from this question revealed that all of the students had internships that had engaging and appropriate duties; most of the respondents reported

that their duties had the appropriate duties to keep the internship fresh and exciting.

The survey asked the respondents if they felt their internship was a good experience and to give reasons they felt the way they did. Survey Question 11 collected these data. Table 19 shows the data from the samples.

Table 19

Student Responses to Survey Question 11

Participant	Student response	Key ideas
Student 1	Yes, the internship was a wonderful opportunity. In fact, I felt incredibly prepared applying for jobs and having the internship listed on my resume. I had employers ask about my experience and it was a positive talking point during the interview process in college.	• Good experience • Prepared for job
Student 2	Yes I was able to make some money while learning a ton about customer service and the feed business.	• Good experience • Learned a lot
Student 3	YES. This was real world experience and work that let me see what working in the field of fashion is really like. I was able to work closely with experienced professionals who taught and coached me on skills I couldn't learn anywhere else.	• Good experience • Learned unique skills
Student 4	My internship was a good experience because I was given the opportunity to develop technology platforms and provide meaningful opportunities to less fortunate communities.	• Good experience • Contributed to company
Student 5	Positive experience. Gave valuable insight into the "behind the scenes" of band directing.	• Good experience • Learned valuable insights
Student 6	Yes, I got to experience and learn about things that truly interest me in a way that I wouldn't have able to before.	• Good experience • Learned unique skills
Student 7	Yes, ceramics required lots of machinery that I would not be able to use or learn about without this experience	• Good experience • Learned unique skills

Data from this question show that overall, the internships these sample students

participated in were good learning experiences. They reported they learned unique skills they could not have learned anywhere else which resulted in a positive experience.

The last question related to Research Question 2 applied to both Research Question 2 and Research Question 1. Table 12 shows the data responses collected from the students. The results were that all of the students reported that their internship helped guide their career plans.

Research Question 2 asked, "How does a CTE graduate perceive internship experiences are best designed and implemented?" From the data collected from the survey questions for this research question, it is determined that the high school internships as they are being implemented over the last 7 years are successful. However, with a small sample size, it is hard to determine a definitive outcome. It is possible that those who had a not-so-positive experience chose not to respond to the survey and therefore did not participate in the study.

We found in the literature review from the EF Academy Blog that the four benefits of internships are you learn about yourself, you find opportunities in the job market, you build a professional network, and you step into real life (Depaty, 2019). The data suggested that all these four benefits were present in the students data. Table 12 showed that from Survey Question 15, that the students reported that they had discovered opportunities that would not have been available had they not completed the internship. When asked if they feel their internship was a good experience, all of the students reported that they feel they did have a good experience and that learning about careers they were interested in gave them insights into those careers. Based on the EF Academy Blog, we have successfully shown that the implementation of the internship program is

working, and students are reaping the four benefits.

Findings of Research Question 3

Research Question 3 asked, "What are the perceived barriers to high school students choosing CTE pathways?" This question is the main question the CTE director asked that this study determine. Data pertaining to this question are inconclusive. This question looked at the overall data from the survey. There were three questions on the survey that pertained to this question that had not been addressed in previous research questions. Survey Questions 3, 6, and 7 asked about when, within their high school career, the student participated in the internship; to what department within the company the student reported; and the length of the internship. Table 8 shows when the students participated in the internships. The number of internships is larger than the number of responses due to several students participating in more than one internship.

Table 20 shows the results of Survey Question 6 and Survey Question 7, which asked what department within the company and the duration of the internship for each data point. The importance of these questions is they build a background for the quality of the internship.

Table 20

Department and Duration of Internship

Participant	Internship department	Duration of internship
Student 1	Administration	1 year
Student 2	Sales	1 year
Student 3	General sewing	1 semester
Student 4	Educating and designing	3 years
Student 5	Band assistant	18 weeks
Student 6	OB-GYN and family medicine	1 semester
Student 7	Assistant potter	1 semester

All the data showed that the participants were able to work within a department in which they were interested. The data also showed that the students were in an internship that was long enough to be impactful. The shortest internship given was 18 weeks as a band assistant. Data also showed that in general, there is no association between the length of the internship and the success of the internship due to all respondents showing that all internships were successful. These data also showed that being that all internships were successful, there are no perceived barriers to students choosing CTE pathways.

Themes of Qualitative Data

The themes found when analyzing the qualitative data are relatively the same within each of the survey questions. The themes show the students had a good experience and that the internships were very beneficial to the college and career trajectories of the students.

Conclusion

The research shown in this study examined high school internships and how effective they are in helping students determine their future. There were three research questions these data were designed to answer. The first question asked, "What impact did the participation in the internship program have on students' future career trajectory?" Data presented in Table 12 from Survey Question 15 showed that all of the participants who went to or were planning on going to an institution of higher learning had a positive experience in the internship and that this experience had in fact helped to guide their plans after graduation.

The second research question that was to be answered asked, "How a CTE graduate perceives internships are best designed and implemented?" The data showed that for the last 7 years, by all indications, the internship program has been successful. For the program to be successful, based on Depaty's (2019) EF Academy Blog, there must be four benefits to a successful internship. First, the intern must learn about themselves. Second, the intern must find opportunities in the job market. Third, the intern must build on professional networks. And fourth, the intern must experience life's independence (Depaty, 2019). Data from the participant surveys showed that the interns had success in all four of these benefits.

The third research question asked, "What are the perceived barriers to high school students choosing CTE pathways?" Data presented in Table 8 show when in the students' high school careers they had internships. This goes to show the students' maturity while in the internship program. The official newspaper of Chamblee High School, The Blue & Gold, posted a research article on which grade level was the most mature. Powel (2021)

defined maturity as knowing the right time to be heard. Also, maturity is knowing how to act in a hard situation. Maturity is just being a good person.

Each student answered six questions with how much they agreed with a statement, and the range could be 1 to 5, with 1 being the most mature answer. The individual scores could range from 1 to 6. The averages could be anywhere from 6 to 30. The results were as expected: Seniors were the most mature with an average score of 11.82, juniors were second with a score of 13.92, sophomores came in third with a score of 14.82, and freshmen came in last with a score of 15.29 (Powell, 2021).

The data from Table 8 showing the maturity of the students when they took the internship could have had an impact on the success of the internship. However, all the students who participated in the study were seniors when they completed the internship. There were a couple of them who also took an internship earlier on, with the earliest being the spring semester in their sophomore year. Due to the participants all being at the same grade level, this question was irrelevant.

Another impact on this research question was the number of participants. A survey was distributed to 64 students who had completed an internship while in high school. Parents of students who had already graduated high school were uncooperative in sharing contact information for their children. This could be from several factors facing families in America today. Parents are cautious about cyber security with everything going on. In February 2021, Sophos Home, a company that protects millions of users and over half a million organizations, commissioned a research team to survey more than 1,000 households with school-age children; 94% of these households had children attending school of some sort. They asked the parents about their greatest concerns about

their children being online and what they had done to keep them safe. The survey discovered that 67% of the parents worry about cyberattacks and over half believed they are more at risk now than a year ago (Sophos Home, 2021). These concerns have had an impact on this study and Research Question 3.

After the original attempts to distribute the survey resulted in such a low number of responses, an original list of current high school students was utilized by slightly modifying the survey and including student plans after high school. Six of the seven responses were from that group of students. Qualitative research methods were used to analyze the data.

Chapter 5 interprets these findings as they apply to the logic model. Research limitations and my recommendations for more study as well as suggestions for the CTE department administration are included.

Chapter 5: Discussion

Introduction

Ever since 1906 when the University of Cincinnati established its internships as a way to give students financial assistance with their education while engaging them in professional programs, internships have been an important facet of technical education in the United States (Thiel & Hartley, 1997). CTE was started in 1914 by President Woodrow Wilson led by Congress by developing a commission to investigate to see if federal aid was needed to support vocational education (Gordon, 2018). The commission, in a 500-page report, recommended to congress they pass a federally aided system of vocational education (Blunk, 2010b). The Smith-Hughes Act of 1917 became the first vocational-technical education federally funded (Hayward & Benson, 1993).

There is a strong push from state officials to increase the collaboration of schools and businesses. The NC Chamber Foundation's Institute for Workforce Competitiveness has been holding meetings that include business and education leaders from across the state. Their goal is to solidify their long-term investments. It was agreed that it is extremely important for employers to commit time and resources to workforce development efforts that include the educational system. Employers are wanting to increase the opportunities for internships and apprenticeships (Chamber Updateds, 2022).

The businesses report a shortage of qualified employees where the schools report that only a third of their students are seeking career certifications within six years after graduation. To fix this, NC Superintendent of Public Instruction Catherine Truitt met with NC Chamber president Gary Salamido in hopes to align public education with industry needs. Truitt is calling 2022 the year of the workforce. Her goals include helping

students and parents become informed about career options, ensuring all students are part of real-world learning opportunities, and teaching workforce expectation skills to the students so they will be better suited to benefit the companies (Kummerer, 2022).

Internships are a key ingredient in a successful CTE program, as this study has shown. They are equally important as a piece to help build the relationships between the educational systems and the workforce. The purpose of this qualitative study was to evaluate the CTE program to find barriers that might keep CTE students from pursuing a career in a CTE field within District ABC.

Research Questions

There were three primary questions guiding the research.

1. What impact does participation in the district's CTE internship program have on students' future career trajectory? (qualitative)
2. How does a CTE graduate perceive internship experiences are best designed and implemented? (qualitative)
3. What are the perceived barriers to high school students choosing CTE pathways? (qualitative)

The entire study was qualitative in nature, and the survey instrument was, for the most, all open-ended in nature.

Interpretation of Findings

Impact on Students' Future Career Trajectory

The first of the research questions asked, "What impact does participation in the district's CTE internship program have on students' future career trajectory?" This

question was addressed using qualitative questions asking the students what their plans were after high school. They selected a choice of attending a college or university, joining the workforce, or following another path. The last choice was intended to identify anyone who went into the military. The following questions were divided by the option they chose. They were asked about the program of study they were planning to study, what they planned to do after college graduation, and how they felt their experience in the internship guided their plans after graduation.

All the data stated that they were choosing the college or university path except for one student. They were taking a gap year and going to continue their education later. The students who were choosing the college path all said that their internship was invaluable toward setting their college and career goals. They had an exceptional experience in their internship, and the field was in their field of interest. The Hechinger Report, a nonprofit newsroom, focuses on education. They reported that an internship program's Number 1 goal should be a quality and meaningful experience for the intern (Hillestad, 2017). From the data presented, it was easy to conclude that a CTE internship had an impact on the student's career path thus meeting the Number 1 goal of a quality and meaningful experience. However, caution must be given to the fact that so few students participated in the study. This could indicate that only a few students who had good experiences participated and that the students who had bad experiences chose not to participate.

Student Perceptions of Implementation

The second research question asked the students, "How does a CTE graduate perceive internship experiences are best designed and implemented?" Data from the

survey items related to this question revealed that the students were all placed in internships that fit their career goals. The companies that hosted the interns were professional, and the students worked in areas where they could experience success and feel they were an asset to the company and not just someone to run errands and do menial tasks. They were productively involved in the business.

The same Hechinger Report article also included six ways to build a quality internship program (Hillestad, 2017). These six components included students being properly trained, a life-changing internship, programs that have been established and are long-term, students being supported through a mentoring program, a career coaching component in place, and compensation for work is a must (Hillestad, 2017).

The data collected from the surveys stated that all the internships were good experiences and helped the students develop their career desire. This would make for a life-changing internship leading to a good program.

The data from survey questions tied to this research question led to a conclusion that the current procedures of assigning interns to host companies and the commitment of the host companies are right on track with what was needed for a successful internship.

Looking at the data, the conclusion attained was that the CTE administration needs to enhance the advertising of the program's benefits and the good experiences students have had.

Caution must be taken with this question as well, as it is possible that only the students who had a positive experience participated in the survey. There could have been a number of students who did not have a positive experience due to some failure in the implementation.

Barriers to Students Pursuing CTE Careers

The third and last question asked, "What are the perceived barriers to high school students choosing CTE pathways?" Perceived barriers could be anything from the internship did not fit the student's interest, to the staff of the host company did not treat the intern as an employee but as an errand person, to finding out this career is not what the student wants to do. There is a wide range of possible issues during the time of an internship. The logic model used to evaluate the program will help with this question by analyzing the inputs to the program and seeing where there might be a breakdown.

The data relating to this question first asked when in their high school career they took the internship. This question was designed to determine the maturity of the student when they participated in the internship. Their answers were to check all the circles for fall or spring during their freshman, sophomore, junior, and/or senior year. The next few questions were geared at finding out how prepared the student was for the internship. The questions asked about the classes that led to the internship, where they completed it, what department it was in, how long it lasted, was there an onsite supervisor, what duties and responsibilities they were charged with, and did it help guide their career goals. There were other questions that asked for similar information from students who went directly into the workforce. However, there were no students in this category who participated in the survey.

The first look at the data says there were no perceived barriers to the students pursuing a CTE career. The application of the logic model below gives more information.

Applying the Logic Model

In Chapter 1, I created a logic model that separated the inputs; the outputs |

activities; the outputs | participants; and the short-, medium-, and long-term outcomes. This logic model is a graphical representation that shows the relationship and how the inputs affect the outputs (Family and Youth Services Bureau, n.d.)

To apply the data to the logic model to evaluate the outcomes requires taking each input, activity, and output and evaluating them compared to their short-, medium- and long-term goals. The short-term goals of the internship programs as listed in the logic model (see Figure 2) are that the students will learn their capacity for a particular career, obtain the necessary medical immunizations and tests, and develop critical soft skills. The medium-term goals of the internship programs are that the students will become better suited to decide on their future career paths and build a network of professionals in a particular profession, while the long-term goals include students deciding on a long-term career choice and learning the education required to follow that choice. Another long-term goal is that the employers gain a valuable, experienced employee with lower training costs.

The data from the participants in the survey showed that students are learning from their internships their capacity for a particular career (see Table 12). All participants stated that they had discovered career desires through their internship meeting the first short-term goal. Students reported they were able to participate in internships in the medical field which requires immunizations and TB tests; therefore, the second short-term goal was met. Students also reported that they learned skills needed when dealing with employers and customers. This meets the third short-term goal.

Medium-term goals were also reported to have been met from the data. Students answered that they developed and discovered the careers that interested them to follow

after high school. This met the first medium-term goal. Students also reported they had started building their network of professionals through their internships. Again, this goal was met.

Because of the limited number of responses and there being no data for Survey Questions 16-19, it is difficult to determine if the long-term goals are being met. Yes, students reported they have developed a career interest, but further data would be required to determine if their developed career interest was long-term. I was also not able to determine if the employers were gaining a valuable, experienced employee. There was no data that extended to the students after they had completed their education and started their careers.

The final determination of the program evaluation of the CTE internship is that according to the data collected, the short-term and medium-term goals are being met. More research and information are required to determine the status of the long-term goals. It is my recommendation that the CTE staff collect post-internship data that include a personal email contact that is not a school email. That would allow the staff to follow up with the interns at set intervals to determine the outcomes of these goals.

Limitations of the Study

When this research project was started, the target population was set at 100 surveys returned. The first list of students who fit the criteria was a list of 100 current students taking internships. The second list of students was a list of 218 students who had graduated between 2016 and 2021, making them all over 18. The limitation to this list was that it was made up of the students' parents and their contact information. There were 50 students who had parents with emails listed. There were 215 parents who had valid phone numbers. Current data show that less than 40% of household phones are landline phones (Richter, 2021). Based on those calculations, of the 215 phone numbers, 129 of them should have been cell phones with texting capabilities.

The first attempt to obtain students' current email addresses was to email the 50 parents and request their student's email addresses. This first request resulted in three student emails, one "do not contact me again" response, and one "did not take an internship" response.

The next request for students' email addresses was through text messages sent using TextMagic software (TextMagic, n.d.). This software allowed the sending of 215 text messages to a list of phone numbers. The result of this effort was three people unsubscribed, four sent email addresses, one said it was a wrong number, one did not know what CTE was, one said to stop bothering them that it was bordering on harassment, and one forwarded the text to her son who never responded.

The third attempt was again sent through email after the heading and subject were updated. This resulted only in one do not contact, and two who did not participate in an internship.

One last attempt was made by posting a request on the high school's social media for alumni pages. This resulted in one email address of someone who did complete the survey.

At this point, I went back to the original list of 100 students who were current students in district ABC's high schools who have taken an internship. The school email format for all these students is the same, so a formula was entered into the spreadsheet that built the email address. Sending this email resulted in six students who completed the survey.

Other limitations to this study included natural occurrences that were beyond anyone's control. Governor Cooper issued an executive order #117 on March 14 due to COVID – 19 that said as of March 16, 2020, all North Carolina Schools were to be closed for students for two weeks (Governor of North Carolina, 2020). On March 23rd, Governor Cooper extended that order with executive order #120 until at least May 15, 2020, unless extended beyond that date (Governor of North Carolina, 2020). On May 5th, 2020 Governor Cooper issued Executive order #138 that declared that schools would not reopen for in-person instruction for the remainder of the academic year (Governor of North Carolina, 2020).

The district's school board voted that the beginning of the year 2020-2021 would open with a two-week period where students were introduced to their classes in a rotational basis. After the two period, all students were remote only for the next six weeks. At the end of September, the school board voted that the students were in need of in person learning. They voted to have students split into two groups. Group A, who elected not to stay remote, attended classes on Monday and Tuesday and Group B

attended Thursday and Friday with Wednesday a remote day for all. Students who were not remote on that given day were assigned work at home. In December of 2020 the board voted to return to school wearing face masks for those students who choose to not stay remote four days a week on a regular schedule with Wednesdays remaining an asynchronous learning day.

Students did not return to regular schedule five days a week until the 2021-2022 school year began. A large portion of the district's students had been learning remotely for a year and half. Students had forgotten what it took to be a student socially, emotionally, and academically (Prothero, 2021). It was up to the teachers to attempt a rebuild.

This school year was a year to try to get back into what felt like a normal routine after being quarantined for 2 years at home. Students had fallen behind in social and emotional learning skills as well as academics. Teachers and CDCs were focused on closing the learning gaps and supporting the students' social-emotional health problems created by COVID-19. When the data were being collected, staff were focused on end-of-course testing and making sure that COVID-19 gaps were eliminated. Teachers had been asked to do more and more to close these gaps. They were burnt out from all the added tasks before them.

In summary, parents are so inundated with junk emails they are accustomed to sending them all to junk. An email, even from their child's former school system, did not hold any importance to them. The small sample size of students limited the study greatly. The students who chose to return the survey were all happy with their internships. Their internship helped them to decide on their future direction. A larger sample size may have

produced the second side to the story.

Also, the school's staff are tired from a long year of recovery. Completing this study at another time may have also produced more samples and a more detailed image of the internship program.

Recommendations for Future Research

If I were to replicate this study, I would include in the data collection process collecting data from the companies hosting the students as well as trying to get student information. These data could come from the Chamber of Commerce, NC Works (NC's workforce development system), or the companies themselves. This was suggested by the CTE director after I could not get student information. Unfortunately, this would require some major changes in the proposal of the study and time did not allow for this to happen. To use the logic model and apply it to the actual study, you need to use an evaluation framework or data collection matrix (Barrington, 2010).

Recommendation 1: Collect Data When Students Exit the Internships

For future research on this topic, it is recommended that the CTE department collect data as the students complete their internship and include a personal email address. Washington State University from their Office of Assessment for Curricular Effectiveness published a quick guide to completing senior surveys (WSU Office of Assessment for Curricular Effectiveness, 2020). They suggested using both surveys and focus groups to collect data on the program (WSU Office of Assessment for Curricular Effectiveness, 2020). The collection of the data should be completed through an exit interview-type meeting that can include both surveys and focus groups. The interview information can be coded and then put into a database for future research. Once students

have graduated from the system, it is very difficult to find their contact information and entice them to participate in any data-gathering attempts. If personal emails had been collected while the student was still a student within the district, this would not have been as difficult to get student responses. The research questions are important ones for the administration to know the answers to so they can direct the future of the CTE internship program. Retaining exit survey data that include their views of the internship experience will help make this a possibility.

Recommendation 2: Examine the Other Interested Parties

The logic model includes some stakeholders who were not included in this original research. This research only targeted the students. Other interested parties who are part of the input to the logic models include the CTE district and teaching staff as well as site staff. These interested parties could be interviewed or surveyed to complete the logic model.

Implications for Practice

Recruiting

Internships need to be more widespread throughout the district. Data showed that for the students who responded to the survey, their internships were major tools in helping them to decide on their future career paths. The internship helped them to find their college of choice and degree majors. In order to expand the program, the district needs more corporate sponsorships that are willing to take in interns, train them, and give them the chance to experience the real world. Paid internships would be even better to give students the chance to earn some money to apply toward their freshman year of school.

Advertising

These opportunities need to be shared with students and their families. Students need to know that they have the choice to take on an internship and the benefits of that experience. There needs to be a clear, advertised, and easily accessible procedure that allows students to find an internship and apply. This helps the students, their families, and their schools.

Administrative Support

The internships need to be organized so students not only can earn money for their internships but can also earn credit toward graduation. Some students take time away from school so they can participate in an internship. Students should be credited for their efforts. Time in the student's schedules through flexibility in the master schedule would allow students to schedule an internship with fewer conflicts, allowing more students to participate.

Conclusion

The Perkins V Act tells the importance of CTE courses for students and how they can impact a community. A big part of CTE is hands-on experiences, which include onsite internships. One high school student said that internships for high school students provide them with opportunities to create connections, discover job opportunities, learn about themselves, and step into real life (Depaty, 2019). Lyons (2017) wrote an article posted on the Southern Utah University website which listed five reasons for high school students to get an internship. First is to see if this career is going to fit your interest. Second is that you gain important experience that starts with the basic work skills and then builds on that into an experience that can translate into other fields. Third is to build

your network and connections that can turn into a job offer. Fourth is to improve your resume or your applications. Having participated in an internship can greatly enhance your resume when applying for a job or your application when applying to get into a college. Fifth is to load up on opportunities. Internships are not running errands and grabbing coffee. Internships are where you enhance your knowledge of a career in a specific period. It can also be your first paid experience (Lyons, 2017).

This study evaluated the internship program within the CTE department at District ABC. Much effort was taken to collect the data and answer the three research questions. Data that were collected showed that the internship program is a valuable tool for students looking for ideas and direction for their future. Data show that the CTE department should consider ways to advertise and expand the internship program so more high school students can benefit from the experience of an internship.

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Appendix A

Email Request From CTE Director

County Logo Removed

Randal Hylemon <randal.hylemon@[redacted]

Re: Urgent Question and Favor

1 message

Taylor Baldwin <taylor.baldwin@[redacted]
To: Randal Hylemon <randal.hylemon@[redacted]

Wed, Jun 3, 2020 at 2:35 PM

With everything going on we could really benefit on some research with internships? It would be great to see how many of the students actually continue on with the workforce beyond internship or if there is another barrier that we have not tackled. Hope this helps.
Thanks,

Taylor

On Wed, Jun 3, 2020, 2:14 PM Randal Hylemon <randal.hylemon@[redacted] wrote:

> Taylor,
>
> I just got off of a Zoom meeting with my new dissertation chair from Gardner Webb. She thinks I only have until August 1 to defend my proposal for the dissertation. That is the first three chapters. I have been procrastinating for a long while. My goal is to do something with [redacted]. She suggested I contact you and ask you what specific information would help you for me to research in the county concerning STEM and CTE. Is there any specific information that I can do research on that will be helpful to you and [redacted]Counties CTE program? Specifics are good.
>
> Looking forward to your ideas...
>
> Thanks,
>
> --
> Randal Hylemon, NBCT M.Ed.
> [redacted]
>
> The function of education is to teach one to think intensively and to think critically. Intelligence plus character - that is the goal of true education.
>
> Martin Luther King, Jr.

Appendix B

Qualtrics Survey Instrument

Dear Participant,

I invite you to participate in a research study entitled: The effect internships in career and technical education have on student's education and career choices. I am currently enrolled in the Doctoral program at Gardner Webb University in Boiling Springs, North Carolina and am in the process of writing my dissertation. The purpose of the research is to determine the impact that participation in the district's CTE internship program has on student's future career trajectory.

Your participation in this research project is completely voluntary. You may decline altogether or leave blank any questions you don't wish to answer. There are no known risks to participation beyond those encountered in everyday life. Your responses will remain confidential and anonymous. Data from this research will be kept under lock and key and reported only as a collective combined total. Only the researcher will know your individual answers to this questionnaire.

If you agree to participate in this project, please complete the questionnaire as best you can. It should take approximately 20 minutes to complete. Please return the questionnaire as soon as possible either in the enclosed business reply envelope, or email to rhylemon@gardner-webb.edu. There are no benefits associated with participation in this study. The study may help us to understand the scope at which high school internships affect a student's path in life. The Institutional Review Board at Gardner-Webb University has determined that participation in this study poses minimal risk to participants. You will receive no payment for participating in the study.

You have the right to withdraw from the study at any time without penalty. If you choose to withdraw from the study, your data will be destroyed. If you wish to withdraw from

the study, simply send an email to rhylemon@gardner-webb.edu, with the word "withdrawal" in the subject line, requesting removal.

If you have any questions about this project, feel free to contact Randal Hylemon by email at rhylemon@gardner-webb.edu or by phone at XXXXX.

Thank you for your assistance in this important endeavor.

Sincerely yours,

Randal Hylemon
Student Role (EdD Candidate)
School of Education, Gardner-Webb University
XXXXX
rhylemon@gardner-webb.edu

Faculty Advisor: Katherine Propst, Ed.D.
School of Education, Gardner-Webb University

Questionnaire:

Background information:

1) What High School were you attending when you participated in the CTE Internship?

___ High School A

___ High School B

___ High School C

___ High School D

___ High School E

___ High School F

___ High School G

___ High School H

___ High School I

___ High School J

___ High School K

2) What year did you graduate?

___ 2016

___ 2017

___ 2018

___ 2019

___ 2020

___ 2021

3) When you completed your internship, what semester (fall/spring) and what year (Freshman, Sophomore, Junior, or Senior) were you?

4) Please list some of the CTE courses you had already completed prior to participating in the internship program.

5) Where did you complete your internship? *(i.e., What company?)*

6) What department within the company did you complete your internship? *(i.e., accounting, sales, human resources, administration, manufacturing floor, etc.)* If you worked in multiple departments, please list all.

7) How long did your internship last?

Quality of internship

8) How well do you feel you were prepared when you started your internship?

9) Did you have an on-site supervisor to which you reported? If so, describe your experience under their leadership.

10) Describe your duties and responsibilities during your internship.

11) Do you feel your internship was a good experience? Please explain why or why not?

12) After you completed high school, what were/will be your next steps?

Currently attending a college or university:

13) What program of study are you or did you pursue? (i.e., Certification or degree being sought)

14) What are your plans after graduation or if you already graduated, what have you been doing?

15) In your own words, how do you feel your experience in your high school internship guided your plans after graduation?

Currently in the workforce – never attended a college or university

16) What is your current job title?

17) Do you plan on continuing to pursue this line of work?

18) Has your internship experience in your high school helped you to obtain your current line of work?

19) Do you plan on furthering your education to advance in this line of work?

Another Path

20) Please describe your pursuits after high school.

Appendix C

Google Forms Survey Instrument

Good afternoon,

I am desperate. I am working on my doctorate dissertation which is a program evaluation of the CTE internship program. I have a survey that I need completed. I must complete my dissertation by the end of July and I am having trouble getting data. The study is focusing on students who completed an internship, **over 18**, and graduated or will graduate between 2016 and now. I have been trying to get contact information for students who fit this profile for 4 months now and their parents are reluctant / refuse to give me their students' email addresses. I only have 1 response to my survey as of now. Here is the link to my survey: https://forms.gle/mA26VZdRNhTz29jL6

Please read the following letter requesting your participation.

Thank you

Dear Participant,

I invite you to participate in a research study entitled: The effect internships in career and technical education have on student's education and career choices. I am currently enrolled in the Doctoral program at Gardner Webb University in Boiling Springs, North Carolina and am in the process of writing my dissertation. The purpose of the research is to determine the impact that participation in the district's CTE internship program has on student's future career trajectory.

Your participation in this research project is completely voluntary. You may decline altogether or leave blank any questions you do not wish to answer. There are no known

risks to participation beyond those encountered in everyday life. Your responses will remain confidential and anonymous. Data from this research will be kept under lock and key and reported only as a collective combined total. Only the researcher will know your individual answers to this questionnaire.

If you agree to participate in this project, please complete the questionnaire as best you can. It should take approximately 20 minutes to complete. Please return the questionnaire as soon as possible either in the enclosed business reply envelope, or email to rhylemon@gardner-webb.edu. There are no benefits associated with participation in this study. The study may help us to understand the scope at which high school internships affect a student's path in life. The Institutional Review Board at Gardner-Webb University has determined that participation in this study poses minimal risk to participants. You will receive no payment for participating in the study.

You have the right to withdraw from the study at any time without penalty. If you choose to withdraw from the study, your data will be destroyed. If you wish to withdraw from the study, simply send an email to rhylemon@gardner-webb.edu, with the word "withdrawal" in the subject line, requesting removal.

If you have any questions about this project, feel free to contact Randal Hylemon by email at rhylemon@gardner-webb.edu or by phone at (828) 275-1972.

Thank you for your assistance in this important endeavor.

If you have questions about the study, contact:
Researcher's name Randal Hylemon
Researcher telephone number: XXXXX
Researcher email address rhylemon@gardner-webb.edu

Faculty Advisor name Katherine Propst
Faculty Advisor telephone number XXXXX
Faculty Advisor email address kpropst1@gardner-webb.edu

Dr. Sydney K. Brown
IRB Institutional Administrator
Telephone: 704-406-3019
Email: skbrown@gardner-webb.edu

Clicking the link below to continue on to the survey indicates your consent to participate in the study:

If you are not 18 years of age or older or you do not consent to participate, please close this window.

--

Randal Hylemon, NBCT M.Ed.

[redacted]

R Hylemon dissertation Survey Instrument

Survey for Information on your experience in the CTE Internship program.

Qualifying Question up front*

Mark only one oval.

I am/was a student with ABC County Schools and am over 18 years of age.

I am under the age of 18 or was not a student in ABC County schools.

Section 2 if Over 18 and BCS student

1. What High School were you attending when you participated in the ABC county CTE Internship? *

Mark only one oval.

High School A

High School B

High School C

High School D

High School E

High School F

High School G

High School H

High School I

High School J

High School K

2. What is your year of graduation *

Mark only one oval.

- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022

3. When you completed your internship, what semester (fall / spring) and what year (Freshman, Sophomore, Junior, or Senior) were you? (If you participated in more than one, please complete the survey for each internship) *

Check all that apply.

	Fall	Spring
Freshman		
Sophomore		
Junior		
Senior		

4. Please list some of the CTE courses you completed prior to participating in the internship program. *

_____

_____

5. Where did you complete your internship? (i.e., What company?) *

_____

_____

6. What department within the company did you complete your internship? (i.e., accounting, sales, human resources, administration, manufacturing floor, etc.). If you worked in multiple departments, please list all. *

_____

_____

7. How long did your internship last? (i.e., 10 weeks, 1 semester, 1 year, etc.) *

_____

_____

8. How well do you feel you were prepared when you started your internship? *

Mark only one oval.

1 2 3 4 5

Extremely unprepared ⬭ ⬭ ⬭ ⬭ ⬭ Extremely well prepared

9. Did you have an on-site supervisor to which you reported? If so, describe your experience under their leadership. *

_____

_____

10. Describe your duties and responsibilities during your internship. *

_____

_____

11. Do you feel your internship was a good experience? Please explain why or why not? *

_____

_____

12. After you completed high school, what were/will be your next steps? *

Mark only one oval.

I attended or plan on attending a college or university.

Skip to question 13

I joined or plan on joining the workforce.

Skip to question 16

I followed or plan on following another path.

Skip to question 20

Attending a college or University

13. What program of study are or did you pursue? (i.e., Certification or degree being sought) *

_____

_____

14. What are your plans after graduation or if you have already graduated, what have you been doing? (i.e., What career are you pursuing?) *

_____

_____

15. In your own words, how do you feel your experience in your high school internship guided your plans after graduation? *

_____

_____

Joining the Workforce

16. What is your current job title? *

_____

_____

17. Do you plan on continuing to pursue this line of work? *

_____

_____

18. Has your internship experience in your high school helped you to obtain your current line of work? *

_____

_____

19. Do you plan on furthering your education to advance in this line of work? *

_____

_____

Another Path

20. Please describe your pursuits after high school. *

_____

_____

* Required