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Career and Technical Education Students Advancing to Higher Education Through Faculty Mentoring

Joneane P. Davis
University of Massachusetts Global, davi9109@mail.umassglobal.edu

Career and Technical Education Students Advancing to Higher Education Through Faculty Mentoring

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Joneane Davis

University Of Massachusetts Global

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Committee in charge:

Carlos V. Guzman, PhD, Committee Chair

Jeffery Lee, EdD

Jalin B. Johnson, EdD

UNIVERSITY OF MASSACHUSETTS GLOBAL

Doctor of Education in Organizational Leadership

The dissertation of Joneane Davis is approved.

Carlos V. Guzman, Dissertation Chair

Carlos V. Guzman, PhD

Jeffery Lee, Committee Member

Jeffery Lee, EdD

Dr. Jalin B. Johnson, Committee Member

Jalin B. Johnson, EdD

Patrick Ainsworth, Associate Dean

Patrick Ainsworth, EdD

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ABSTRACT

Career and Technical Education Students Advancing to Higher Education Through Faculty Mentoring

by Joneane Davis

Purpose: The purpose of this phenomenological study was to identify and describe the career technical education (CTE) mentoring experiences of adult learners who completed an allied health certification and subsequently went on to pursue higher education such as a bachelor's degree, from the lens of Zachary's four phase mentoring model.

Methodology: Semi-structured interviews were conducted with adult former CTE learners who advanced to higher education. Through purposeful sampling, 10 participants were selected to participate in the interviews. The interviews were recorded and the recordings transcribed. The data were coded and analyzed for common themes.

Findings: The data analysis resulted in four key themes. Important elements of the mentoring experience included: relationship building, career opportunities, supportive connections, and career objectives. These were interpreted as relationships, learning, influence, and opportunities.

Conclusions: Four conclusions were drawn from the data. First, CTE students who develop trusting mentoring relationships are better prepared to compete in higher education. Second, CTE students must have appropriate opportunities and means of support to overcome challenges that arise in and out of the learning environment. Third, CTE learners need a fully engaged, supportive mentor to have an enhanced learning experience. Fourth, CTE faculty mentors help students refine their career objectives through their own experiences and expertise.

Recommendations: Further researcher still needs to be conducted on the importance and efficacy of faculty mentoring in the CTE setting, taking student populations, socioeconomic factors, and other distinctions into account. Replication of this phenomenological study should focus on the need for funding specifically allocated to CTE faculty mentoring programs, implementation of faculty-student partnerships, and the evolution of coursework to match industry shifts.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I: INTRODUCTION

Learning occurs through a variety of approaches. Individuals have distinct differences in their approaches to learning and educational aspirations. Educational attainment is necessary for a healthy economy and related to the fortitude and abilities of the current and future workforce (Radcliffe, 2019). Based upon socioeconomic issues, intellectual challenges, and other dissimilarities, every learner's journey is unique to his or her circumstances. Given how one decides to attain educational goals is multifactorial, it would be advantageous for educators and lawmakers to work in concert toward ensuring students of all ages are prepared for college and successful careers.

Not all students are equipped or able to attend a traditional college following high school. Some high school students may seek out career and technical training as a means to build a career, and adult learners may do so to improve or change careers. In some cases, individuals need to enter the workforce in a timely fashion to support their families or gain independence (Paun & Van Loo, 2011). Others desire a career that does not require a bachelor's degree, such as an allied health certificate or a license available through a career and technical education (CTE) program (formerly known as vocational education). A CTE program is often a viable option and, in many cases, a steppingstone in the interim of an individual's long-term goals (Ratway & Moore, 2014). Faculty fostering constructive relationships with students who enroll in career-oriented programs is a critical component to student success. Sustained student achievement is a long-term effort for all educational levels (Cortese, 2003). Faculty dedicated to the diverse learners and their unique needs serving in the CTE setting convey industry-based knowledge and expertise while encouraging holistic development.

CTE programs offer disciplines such as medical assisting, dental assisting, massage therapy, welding, plumbing, culinary arts, criminal justice, and cosmetology. These courses can typically be successfully completed in a time span of 9-12 months, allowing attendees to quickly enter the workforce and begin earning money (Oates, Flores, & Weishaw, 1998). For many learners, attending a CTE program is a more practical and appropriate option to obtaining a marketable trade in a timely manner (Gough, 2010). Despite CTE programs being a viable option for career opportunities, little research examined the completion rates of students who attend CTE programs or their transition to traditional colleges to further their education.

CTE often serves as a bridge to higher learning and traditional college while creating a sustainable career path (Carnevale, Cheah, & Hanson, 2015). At any given time, approximately 50,000 Californian students are enrolled in CTE courses across 15 industry sectors representing 58 different career pathways (California Department of Education [CDE], 2018). According to the CDE (2018), just under 80% of these learners go on to pursue higher education. For CTE students to achieve successful outcomes in their coursework and tactile training, faculty who facilitate the curriculum must be adequately trained and well-equipped to convey the content to support the diverse student populations they serve. Faculty relationships with students are critical because teachers have the power to build students up or tear them down (Banks, 1994). Myers (2007) indicated teachers directly affected the attitudes and behaviors of students. Faculty can nurture or negate the innate curiosity students bring with them into the classroom. Ultimately, it is up to the teacher whether students see school as a place in which to thrive

or a place to be feared. Effective faculty get to know their students, understand their needs, and proactively plan to address those needs (Stronge, n.d.).

It is critical for faculty to foster constructive relationships with students who enroll in career-oriented programs to achieve student success (Stead, 2005). Sustained student achievement is a long-term effort on all educational levels (Cortese, 2003). The positive connection between faculty and their students leads to engaging and sustained work (Douglas, Lewis, Douglas, Scott, & Garrison-Wade, 2008). When students sense a personal connection between themselves and the teacher, the classroom dynamic changes. Given the hands-on nature of CTE coursework, faculty roles shift from simply delivering content to equally caring about student academic contributions and pursuit of their aspirations and dreams (Lemov, 2010). Given this, CTE faculty are uniquely positioned to plant the seed of higher education and create a pathway to success for CTE students. Yet there has been little research conducted to understand the faculty mentoring experiences of former CTE students who went on to pursue higher education.

Background

People learn differently and have different educational aspirations (Lazerson & Grubb, 1974). Historically, completing high school was a significant academic accomplishment and sufficient to obtain a career. However, some careers require additional training without the need for a college degree. To fill this need, vocational education (now known as CTE) was introduced and the Smith-Hughes Act of 1917 became the first law to approve federal funding for vocational education programs in U.S. schools (Prentice Hall, n.d.). Although vocational education was available for decades, the 1990s introduced a push for all students to attend college in anticipation of

21st century careers and for K-12 schools to prepare students for college. These aims were a core tenet of the No Child Left Behind Act of 2001 (U.S. Department of Education [ED], 2001). This push for college increased competition to enter universities, drove up the cost of tuition, and resulted in trillions of dollars in student loan debt (Sanchez, 2014). After college, many graduates experienced difficulty finding jobs and struggled to pay back student loans (Goodman-Scott, 2013). Additionally, the push for everyone to attend college resulted in decreased enrollment in CTE programs, creating shortages in fields such as nursing, dental assisting, and commercial welding (Sanchez, 2014). Attending a CTE college is a viable option for higher education outside of traditional college. CTE students typically obtain targeted training, leading to a career faster and at a lower cost than those attending traditional college, making it a strong alternative to traditional college pathways (Jacob, 2017).

Career and Technical Education Programs

CTE is a term applied to institutions and educational programs focused on skilled trades, applied sciences, modern technologies, and career preparation (Gewertz, 2018). CTE was formerly and is still frequently referred to as *vocational education*; however, the term fell out of favor with most educators who preferred the focus denoted by CTE. CTE programs typically offer academic and occupational-oriented courses, and most provide students with the opportunity to gain work experience through internships, apprenticeships, on-the-job training, and industry-based certification opportunities (ED, 2017). Although CTE programs vary greatly in size, configuration, focus, mission, and purpose, they provide a broad base of learning experiences aimed at career pathways in skilled trades such as automotive technology, construction, plumbing, welding, nursing,

and physical therapy. CTE programs include a diverse range of fields, including agriculture, architecture, culinary arts, fashion design, filmmaking, forestry, engineering, allied healthcare, personal training, robotics, and video gaming design (Los Angeles County Office of Education, 2016).

CTE programs may be offered through high schools, public community colleges, or private affiliates offering specialized certification programs for high schoolers as well as adult learners (Zhao & Frank, 2003). CTE programs are now offered at many high schools for students who already decided on or are interested in exploring potential career paths. At the high school level, CTE was traditionally provided by Regional Occupational Programs (ROPs) that served students from multiple schools or districts; although many ROPs still exist, recent changes in funding shifted CTE programs from regional centers to the district and school levels (CDE, 2015). Regardless of the educational setting, both high school and adult learners can access the classes.

ROP and high school CTE programs offer a range of services and fields. For example, Baldy View ROP (BVROP) in San Bernardino County in southern California services a network of 20 secondary schools offering CTE to more than 6,000 students throughout the county each year. BVROP offers applied courses that train high school and adult students for employment and post-secondary education. Classes are free for high school students in BVROP's participating districts. Adult learners can enroll in courses to be trained to earn higher wages, re-enter the workforce, or focus on a career change. Many counties throughout California provide similar regional centers or statewide networks as part of the public school system (Bronfenbrenner, 1977). CTE

programs are often provided by regional structures such as ROPs to serve students throughout multiple school districts and adults looking to gain hands-on training.

In some cases, CTE is provided through a high school, where it may be embedded in the school's standard academic program (Association for Career and Technical Education [ACTE], n.d.). Students may also attend separate CTE institutions for part of the school day, such as an off-campus career training center where students take both academic and CTE courses. In other cases, CTE programs may take the form of a distinct school-within-a-school, such as an industry-based magnet or charter school offering an interdisciplinary or career-oriented program in which academic coursework is aligned with specific career paths (e.g., nursing, culinary arts, dental office, pharmacology; ACTE, n.d.). Strong evidence suggested CTE programs for at-risk students improved high school graduation rates and provided students with marketable skills (Campbell & Wilson, 2011).

In addition to high school programs, CTE programs are offered across a variety of other settings, including community colleges and privately owned for-profit institutions. In the past, CTE training was often perceived as placements for students unsuccessful in traditional academic courses. However, the industry evolved, creating more rigorous curricula and requiring CTE programs to produce students who can compete in higher education settings, who are well-prepared to meet challenges as competent contributors to society, and who help drive a workforce that participates in a local and global economy (Gordon, 2014).

For-profit CTE establishments are another option to attain a marketable trade in a timely manner. However, for-profit trade schools can be expensive. These schools

usually offer more options for students who still need to work or raise a family while attending classes and learning a trade. These trade schools usually allow students to attend early morning or evening classes to avoid the standard 16-week semester of traditional schools. Although some trade schools offer job-placement services, a CTE certificate or license does not automatically equate to gainful employment. The same is true for any educational endeavor. Realistically, there is no guarantee and one's success depends upon his or her effort and other factors (Bishop et al., 2004). This creates a unique opportunity and need for CTE faculty to fill this void through mentoring relationships. Ultimately, for-profit trade schools may be the perfect fit for a learner uninterested in the academic aspect of schooling who desires to focus on a limited set of skills for a specific career choice, but those students also need faculty guidance to leverage their education into viable employment. When done correctly, CTE has the potential to improve educational and employment outcomes at postsecondary levels, especially for disadvantaged or minority students (Bonilla, 2019).

The Need for CTE

Crucial conversations with students about career pathways may be a difficult exchange. Often, students lack a realistic concept of their options; they hear about the push to go to college but may feel overwhelmed with how to choose a school and consider a major (Kolko, 2013). Students raised in homes with family members who attended college have an advantage over students without that history. However, the college admissions process changed tremendously over the last few decades; it has become challenging for many students to navigate the multiplicity of information available, which often leaves students without a clear sense of direction (Moore, 2018).

Often, CTE students are faced with uncommon challenges and tactile learning environments are a more appropriate option for students who require a more practical, real-life approach to gaining a marketable set of skills (Moore, 2018).

Different cross-sections of the population have diverse needs that CTE programs are well positioned to address. Attendance in a CTE program more than doubles the rate of college entrance for minority students (Irvine Foundation, 2011). According to the CDE (2018), high-risk students are eight to ten times less likely to drop out in their junior and senior year of high school when enrolled in a CTE course. CTE programs can be the best option for students from economically disadvantaged backgrounds who cannot afford traditional college, students with intellectual challenges who may struggle with the academic rigor of traditional college courses, and students with other dissimilarities compounded by stressful life circumstances (Kolko, 2013). CTE programs are also good options for students looking to enter the workforce quickly or who desire a career path that does not require a bachelor's degree. CTE programs equip students with tangible skills required by organizations and industry leaders to address the expanding skills gap and ever-evolving workforce, making a CTE education a viable option for adults seeking to gain more marketable skills or to increase their income.

One of the most impactful benefits CTE can provide is industry-based certifications (Hansen & Leuty, 2012). These certificate programs integrate relevant coursework with hands-on training to further validate student mastery of learned concepts and prepare them for jobs in the field. Through CTE programs, students quickly learn a trade and enter the workforce, which is beneficial to them and the economy (Gordon, 2014).

Teaching through Mentoring

Mentoring has an extensive history. It is commonly inferred as one experienced professional sharing resources with a less competent protégée (Zachary, 2000). This relationship is a learning connection and thus influenced by the beliefs or conjectures the mentor and the mentee contribute to the learning relationship. A strong mentoring relationship focuses on both academic and career success.

Mentors approach their work as facilitators of learning. Learning is the fundamental process and primary purpose of mentoring (Zachary, 2000). During the learning connection between mentor and mentee, a learning alliance is formed by which both participants progress and grow. It is critical this relationship cultivates significant elements of connection and lay the groundwork for a constructive and fruitful learning relationship. The mentoring connection is maintained by effective communication. Zachary (2000) suggested strong mentoring interactions encompass active listening, periodically checking assumptions about what is going on, sharing thoughts and feelings candidly, maintaining sensitivity about the mentee's personal and learning needs, discussing accountability, following up regularly, reflecting on the learning taking place, and focusing on the mentee learning goals.

Mentoring is commonly misidentified or used interchangeably with coaching. Though closely related, they are distinctly different. A mentor may coach; however, a coach is not considered a mentor (Feiman-Nemser, 2003). Mentoring is based on relationship building and personal development, whereas coaching is more functional and focused on completing a fundamental task. Mentoring focuses on the individual and his or her path for fulfillment (Feiman-Nemser, 2003). Faculty who mentor students

encourage them to talk about their personal values, find emotional balance through their individuality, and find meaning in life by creating a picture of the future so they can see who they want to become (Bowers et al., 2016). Faculty mentoring spans personal, academic, and career topics, regardless of the age of the student. Teaching through mentoring requires committed faculty to gain the trust of the student through one-on-one support to benefit the student's educational and career endeavors.

The research identified multiple benefits of mentoring. Mentors help students overcome socioeconomic disadvantages, intellectual challenges, and other dissimilarities (Brown et al., 2005). Students who need extra support benefit from mentors devoted to their success in the learning environment. High levels of faculty mentoring in the classroom setting helps cultivate positive thinking, thus yielding favorable student outcomes. Anderson and Ackerman-Anderson (2010) stated, "Transforming mindset is a prerequisite to sustained change and culture" (p. 19). Faculty members serving as mentors can help students transform their mindsets and help them succeed through ongoing encouragement and guidance.

Faculty Mentoring in the CTE Setting

CTE faculty teach in a setting requiring the amalgamation of academic and occupational instruction, integrating theoretical learning and practical, hands-on skills while working with a unique and diverse student population with distinct learning objectives and needs. CTE faculty must possess industry-based experience and comprehensive content knowledge pertaining to a specific discipline. This is critical in the vocational classroom; however, they often lack a formal educational background

(Kerna-Jamerson, 2012). Rather, CTE faculty often bring years of experience in their field and receive ongoing training to keep their skills current (Kerna-Jamerson).

CTE faculty members who are earnest about mentoring their students benefit their institutions, students, and other faculty. Faculty connecting with students cultivate relationships focused on fostering a student's choice of program and career development (Penner, 2001). Students with mentors are less likely to fall prey to poor personal or professional choices or moral failure because of the benefit of being in an open, caring relationship with a mentor. Effective mentors are active listeners, supportive of their students, and lead by example (Penner, 2001). Such faculty relationships with CTE students can encourage and motivate students to move beyond their comfort zones, promoting independence, balance, and higher aspirations.

Faculty mentoring is a principle component in the CTE classroom environment. In a CTE mentoring relationship, the faculty member and student work together to identify and build the student's abilities toward a successful career path (Rosenberg & Heimberg, 2009). A faculty mentor acts as a teacher, sponsor, guide, and counselor, and often provides moral support and encouragement (Rosenberg & Heimberg, 2009). The most important role of the faculty mentor is to assist and facilitate the realization of the dream of the CTE learner (Rowley, 1999). Such commitment is an innate and organic process rooted in the belief mentors can make a significant and positive impact on the lives of their students. This belief is not grounded in conceptions of what it means to be a mentor; rather, it is grounded in the knowledge mentoring, though at times a challenging endeavor requiring significant investments of time and energy, is worth the process to

help students reach their fullest potential (Rowley, 1999). As such, mentoring in the CTE field deserves additional research to better understand the student's experiences.

Theoretical Framework

Zachary (2000) developed a four-phase mentoring model that suggested mentoring relationships move through each of the four phases sequentially, similar to the seasons of the growth of a plant:

- Preparing (tilling the soil before planting)
- Negotiating (planting the seed)
- Enabling (nurturing growth)
- Coming to closure (bringing in the harvest)

Preparing. The four-phase model suggests the preparation stage starts with the mentor developing self-awareness as they reflect on their own personal learning journey. The model cautions the mentor to avoid mentor cloning (projecting one's own experience onto the mentee) and to understand the mentor's role in facilitating effective learning relationships. Zachary (2000) suggested the mentor needs to explore his or her motivation for and readiness to be a mentor. During this stage, the mentor assess his or her mentoring skills to identify areas of needed learning and development. The aim of the preparation stage is to evaluate the viability of the prospective relationship. During this stage, it helps to have an initial conversation with the mentee to determine how the mentoring relationship might be developed.

Negotiating. The negotiation phase of the model is equated to the business phase of the relationship, where the mentor and mentee agree on learning goals, content, and processes. During this phase, the ground rules are developed. Jointly, the mentor and

mentee must clarify expectations, assumptions, goals, and needs, and should establish norms for confidentiality, boundaries, and limits. Details like when and how to meet, responsibilities, criteria and milestones for success, accountability, and how to bring closure are spelled out in a mentoring agreement.

Enabling. Under Zachary's model (2000), during the enabling phase the learning relationship is implemented. In this phase, it is crucial for the mentor and mentee to build a level of trust and effective communication leading to a quality mentoring relationship. The nurturing of the mentee's growth is encouraged through establishing and maintaining an open and affirmative learning climate; providing thoughtful, timely, candid, and constructive feedback; and monitoring the learning progress and process to ensure the mentee's learning goals are met. This phase is also vulnerable to many potential obstacles that need to be addressed.

Coming to closure. Zachary's model (2000) further suggested closure protocols should be established when the mentoring agreement is developed in the negotiating stage. Best practices in this model include evaluating, acknowledging, and celebrating achievement of learning outcomes. This serves as an opportunity to evaluate personal learning and apply the learning to other relationships and situations.

Statement of the Research Problem

The need for diverse and technically trained candidates in the U.S. labor force continues to grow (Walpone, McDonough, Bauer, Gibson, Kanyi, & Toliver, 2005). However, traditional two- and four-year college and university degree programs are not always the best or preferred option for many competing in the current job market. Carnevale, Smith, and Strohl (2013) indicated approximately 36 million American

workers who attended college did not complete their degree. However, certifications and licenses can be achievable through CTE programs that offer training and support a successful career plan. Postsecondary CTE programs could help fill workforce priorities, especially in fields where there is a current shortage such as allied health (Carnevale et al., 2013).

CTE is a broad term with varying perspectives ranging from workforce education to technical education to vocational education, and available in both secondary and post-secondary settings (Rojewski, Asunda, & Kim, 2009). However, the U.S. Congress (P.L. 109-270, 2006) defined CTE as organized educational activities offering a sequence of courses that provide individuals with coherent and rigorous content aligned with challenging academic standards. They further noted CTE learning environments include relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions (CDE, 2015). CTE prepares students for the workforce, teaching both technical and soft skills. It also teaches general employment skills and skills required for specific occupations or careers (CDE, 2015). Within the space of CTE certifications, it is important to document the returns associated with human capital investment, such as mentoring (Jepsen, Troske, & Coomes, 2014).

In addition to offering a quicker option for entering the skilled workforce, CTE programs can serve as a steppingstone in the pursuit of higher educational aspirations. Vaughn and Fletcher (2012) expressed it was time for CTE to understand its impact on students' long-term educational and career trajectories. The content and how it is taught exert tremendous influence on student performance and learning (Camp, 2011). With positive faculty-student relationships, emotional deposits are made to the student,

emotional withdrawals are avoided, and students are respected (Payne & Huffman, 2005). Cultivating caring mentoring relationships between faculty and students is essential and could mean the difference between achievement and failure for CTE learners. However, few studies have examined the faculty mentoring experiences of former CTE students who went on to pursue higher education. Bratter and Gorman (2011) found consensus that training programs need more program evaluation and better research to identify their returns on investment. Similarly, McIlveen, Brooks, Lichtenberg, Smith, Torjul, and Tyler (2011) noted a need for CTE programs to review their growth areas and processes to assess the needs for the population served.

Mentoring enables faculty to make personal connections with those they are instructing in specific disciplines. CTE organizations and institutions are not yet fully equipped or structured to support the variety of learning needs of CTE students, which results in some learning groups in the CTE classroom setting being left behind. The essential component of CTE faculty effectively mentoring the learner is conspicuously absent throughout current literature. However, substantial literature supported the positive impact on students when faculty mentoring practices are included in traditional learning environments.

Purpose Statement

The purpose of this phenomenological study was to identify and describe the career technical education (CTE) mentoring experiences of adult learners who completed an allied health certification and subsequently went on to pursue higher education such as a bachelor's degree, from the lens of Zachary's four phase mentoring model.

Research Question

The following research question guided the study: What are the faculty mentoring experiences of former CTE students who went on to pursue higher education?

Significance of the Problem

More viable educational and career pathways are needed, especially given the diverse populations in communities across the nation. Over the years, vocational education experienced sizable changes in meaning and scope, and was rebranded as CTE (Brewer, 2011). In general, CTE is distinguished from traditional education by teaching employable skills students can apply in the workplace within a short period. Throughout history, apprenticeships were the common standard of passing on vital work skills to others (Keller, 1948). Barlow (1974) defined apprenticeships as a form of education where a master or expert provides direct instruction of a skill to a student, also known as an apprentice. This concept translated into modern CTE programs in which students learn a specific trade.

This study investigated the faculty mentoring experiences of former CTE students who went on to pursue higher education. Keller (1948) described how relationships are a key component of apprenticeships, helping students learn new skills and motivating them into a career. A core value of mentoring is the relationships forged between the mentor and mentee (Keller, 1948). With the evolution from apprenticeships to vocational education to CTE, it is important to understand the mentoring experiences of former CTE students who went on to pursue higher education.

An area that often distinguishes CTE from traditional educational is the level of faculty mentoring. The role of CTE faculty in mentoring students and directing them

toward career paths is an important element of CTE programs; many students enter CTE programs with little understanding of the landscape relating to the career path or occupation they are considering (Stead, 2005). Additionally, student career goals evolve over time and good faculty mentors guide their students through their academic and professional journey. Mentoring is important because it allows students to gain knowledge and skills and because it provides professional networking and personal support to facilitate success in and outside the classroom (Stead, 2005).

Quality faculty mentoring can mean the difference between a student's success or failure (Rosenberg & Heimberg, 2009). CTE class settings are designed to resemble the industry discipline they represent. Therefore, faculty supporting students in this environment are considered experts in their field and as mentors, they can convey their knowledge base and experience in a professional, nurturing, and supportive manner, much like that found in a healthy workplace. Lemov (2005) found seemingly small, deliberate changes in teacher words and actions could produce dramatic improvements in overall student performance in any learning environment. The current study expanded upon the work of Lemov by highlighting the need for mentors who can encourage students and help them gain valuable job skills.

Successful mentorship is vital to career success and satisfaction for both mentors and mentees (Straus, Johnson, Marquez, & Feldman, 2014). Although the literature consistently suggested faculty mentoring is an essential component to successful student outcomes, little is known about mentoring in a CTE environment and how it contributes to students continuing their education and advancing their skills. More research is needed to fill this gap and better understand the connections between CTE and higher education.

This study sought to explore the faculty mentoring experiences of CTE students who went on to pursue higher education. Information from this study could be used by practitioners and policymakers to guide implementation of CTE programs, help with the recruitment and selection of CTE faculty, and inform training programs for CTE faculty so they can most effectively mentor their students.

Definitions

Apprentice. A person learning a trade from a highly skilled individual, having agreed to work for a fixed period at low wages.

Career and Technical Education (CTE). Defined by ACTE (n.d.), CTE is education promoting the teaching of procedural knowledge to prepare trainees to become career ready for a specific trade, occupation, or vocation.

Higher Education. Formal education after the completion of high school leading to an academic degree or certificate, also called postsecondary education.

Mentee. The younger, less-experienced person who benefits from working with a mentor.

Mentor. A more experienced person who serves as a trusted and reliable source of advice, counseling, and support.

Pedagogy. The method and act of teaching, especially as an academic subject or theoretical concept.

Vocational Education. Educational training providing practical experience in a particular occupational field such as agriculture, home economics, or allied health.

Delimitations

This study was delimited to former CTE students who pursued higher education. The study was further delimited to Riverside and San Bernardino Counties, located in southern California.

Organization of the Study

This study is organized into five chapters. The first chapter presented background information relevant to the study, along with the statement of the problem, purpose of the study, research question, significance, definitions, and delimitations. Chapter II provides an in-depth review of the literature pertinent to CTE, mentoring, and higher education. Chapter III details the methodology used to conduct this study, including the research design, population, sample, instrumentation, data collection and analysis procedures, and limitations. Chapter IV presents the data and major findings. Chapter V offers conclusions, implications for action, and recommendations for future research.

CHAPTER II: REVIEW OF THE LITERATURE

This chapter begins with an overview of higher education and the rise of and need for vocational education in America from a historical perspective. This is followed by an assessment of the current trends and challenges faced by institutions of higher learning, including those providing vocational education services. The next section focuses on the current status of vocational education, now referred to as career and technical education (CTE), including the various approaches to planning for future CTE learners, faculty mentoring of students in the CTE classroom, and the role of CTE faculty related to their responsibilities of nurturing student growth and development. The chapter continues with a comprehensive assessment of the concept of CTE students progressing to higher education based on their faculty mentoring experiences in the CTE setting, considering best practices, impact on the learner, an appraisal of some efforts, and crucial nuances about faculty mentoring and challenges faced in both the for-profit and higher education sectors. The researcher developed a synthesis matrix to serve as foundation for the literature review (Appendix A).

Higher Education

Higher education is defined as education beyond the high school level. Higher education is also referred to as postsecondary or tertiary education. This type of learning is typically delivered at a college, university, or technical school, referred to collectively as institutions of higher education. This delineation of higher education may vary based on the laws and cultural norms of a country. In the United States, higher education is considered voluntary; secondary education is not considered higher education because in most states, it is mandatory for all students under the age of 16 to attend high school

(National Center for Education Statistics, 2017). Globally, mandated school attendance concludes at a much earlier age than in the Western world; other countries regard the Western equivalency to high school as a luxury unattainable to most of the population (National Center for Education Statistics, 2017).

Pursuing higher education is important for career and personal development. After attending college, individuals may experience greater career opportunities, earn higher wages, experience greater cultural awareness, and enjoy a fuller life with more choices and possibilities (Queano, 2015). Higher education is intended to broaden one's understanding and experience. Learners complete higher education with official documentation of their achievements recognized by both potential employers and colleagues (Queano, 2015). Higher education consists of both undergraduate (i.e., college) and graduate (or postgraduate) studies. Higher education also includes most technical education that is vocationally orientated in specialized fields of study (Allen, 2020). Vocational education can be configured as secondary or postsecondary education, but not deemed as academic in comparison to traditional higher education (Allen, 2020). Table 1 represents the different education levels and how higher education corresponds.

Table 1

Levels of Education

Stages	Approximate Age	Level
Primary	4-10 years	Elementary School
Secondary	11-18 years	High School
Tertiary*	19-22 years	College
Quaternary*	23+ years	Graduate School

Note. * Higher Education

The world is ever evolving. The aim of higher education in the 21st century concerns providing students with the necessary skill sets to thrive in this new

dispensation and helping them develop the surety to execute those skills (O'Driscoll, Sahm, Byrne, Lambert, & Byrne, 2019). With the abundance of information now readily available to learners via the information superhighway, 21st century skills focus on making sense of data and sharing and applying those data in the most efficient ways. Thus, 21st century faculty may serve as mentors and advisors leading their students, not as well-read superiors postulating about with their knowledge. With such unlimited resources, students have as much access as faculty to information on a variety of subjects and may often be a step ahead in their technology use. Faculty must empower themselves as facilitators and influencers for the learning journey, and in turn encourage and empower their students. This notion suggests faculty must be active listeners who are forward-thinking, pliable, and curious enough to be open to new methods of supporting diverse learners, and further be willing to learn alongside their students (O'Driscoll et al., 2019).

Not all students are prepared or able to attend a traditional college following high school. For some individuals, they need to enter the workforce to help support their families or gain independence (Paun & Van Loo, 2011). Others wish to pursue a career that does not require a bachelor's degree but may require a certificate or license available through a CTE program, formerly known as vocational college. A CTE program is often a viable option and, in many cases, a steppingstone in the interim of an individual's long-term educational goals (Ratway & Moore, 2014).

Sustained student achievement is a long-term effort on all educational levels, whether traditional or vocational (Cortese, 2003). Faculty fostering constructive relationships with students who enroll in higher education is a critical component to

student success. This is especially true in CTE programs in which students learn career-based skills through hands-on experiences guided by faculty experts in the field. Faculty dedicated to diverse learners and serving their unique needs in a CTE setting convey industry-based knowledge and expertise while encouraging holistic development (Braskamp, Trautvetter, & Ward, 2016). CTE programs offer disciplines such as medical assisting, dental assisting, massage therapy, welding, plumbing, culinary arts, criminal justice, and cosmetology. These courses can be successfully completed typically in a time span of 9-12 months, allowing attendees to quickly enter the workforce and begin earning money (Oates et al., 1998). For many learners, attending a CTE program is a more practical and appropriate option to obtaining a marketable trade in a timely manner (Gough, 2010). Despite CTE programs being a viable option for career opportunities, little research examined the completion rates of students who attend CTE programs or their transition to traditional colleges to further their education.

Career and Technical Education

CTE is a term applied to institutions and educational programs focused on skilled trades, applied sciences, modern technologies, and career preparation (Gewertz, 2018). CTE curriculum is deeply rooted in the teaching of higher-order thinking skills, decision-making, and problem-solving skills through collaborative models of applied learning in career-based concepts (CDE, 2015). CTE was formerly and is still frequently referred to as *vocational education*; however, the term vocational education fell out of favor with most educators who preferred the focus denoted by CTE. CTE programs typically offer academic and occupational-oriented courses, and most provide students with the opportunity to gain work experience through internships, apprenticeships, on-the-job

training, and industry-based certification opportunities. Although CTE programs vary greatly in size, configuration, focus, mission, and purpose, they provide a broad base of learning experiences aimed at career pathways in skilled trades such as automotive technology, construction, plumbing, welding, nursing, and physical therapy. CTE programs include a diverse range of fields, including agriculture, architecture, culinary arts, fashion design, filmmaking, forestry, engineering, allied healthcare, personal training, robotics, and video gaming design (ED, 2012).

CTE programs may be offered through high schools, public community colleges, or private affiliates offering specialized certification programs (Zhao & Frank, 2003). CTE programs are now offered at many high schools for students who already decided on or are interested in exploring potential career paths. At the high school level, CTE was traditionally provided by Regional Occupational Programs (ROPs) serving students from multiple schools or districts; although many ROPs still exist, recent changes in funding shifted CTE programs from regional centers to the district and school level (CDE, 2015).

ROP and high school CTE programs offer a range of services and fields. For example, Baldy View Regional Occupational Program (BVROP) in San Bernardino County in southern California services a network of 20 secondary schools offering vocational training to more than 6,000 students throughout the county each year. BVROP offers applied courses training high school and adult students for employment and postsecondary education. Classes are free for high school students in BVROP's participating districts. Adult learners can enroll in courses to be trained to earn higher wages, re-enter the workforce, or focus on a career change. Many counties throughout

California provide similar regional centers or statewide networks linked to the public-school system (Bronfenbrenner, 1977).

In some cases, CTE is provided through a high school, where it may be imbedded in the school's standard academic program (ACTE, n.d.). Students may also attend separate CTE institutions for part of the school day, such as an off-campus career training center where students take both academic and CTE courses. In other cases, CTE programs may take the form of a distinct school-within-a-school, such as an industry-based magnet or charter school, offering an interdisciplinary or career-oriented program in which academic coursework is aligned with specific career paths such as nursing, culinary arts, dental front-office, or pharmacy technology (ACTE, n.d.). Strong evidence suggested CTE programs for at-risk students improved high school graduation rates and provided students with marketable skills (Campbell & Wilson, 2011).

In addition to high school programs, CTE programs are offered across a variety of settings, including community colleges and privately owned for-profit institutions. In the past, CTE was often perceived as placements for students unsuccessful in traditional academic courses. However, the industry evolved, creating more rigorous curricula and requiring CTE programs to produce students who can compete in higher education settings, who are well-prepared to meet challenges as competent contributors to society, and who help drive a workforce that participates in a local and global economy (Gordon, 2014).

For-profit CTE establishments are another option to attain a marketable trade in a timely manner. However, for-profit trade schools can be expensive. These schools usually offer more options for students who still need to work or raise a family while

attending classes and learning a trade (Weiss, 2013). These trade schools usually allow students to attend early morning or evening classes to avoid the standard 16-week semester of traditional schools. Although some trade schools offer job-placement services, a CTE certificate or license does not automatically equate to gainful employment. The same is true for any educational endeavor. Realistically, there are no guarantees and one's success depends upon his or her effort and other factors (Bishop et al., 2004). Ultimately, for-profit trade schools may be the perfect fit for a learner uninterested in the academic aspect of schooling who desires to focus on a limited set of skills for a specific career choice. CTE also has the potential to improve educational and employment outcomes at postsecondary levels, especially for disadvantaged or minority students (Bonilla, 2019).

History of CTE

Historically, vocational education (now CTE) provided learners practical, applied experience to prepare them for the immediate workforce needs of a given time. This concept began centuries ago, as early 626 BC, with the Neo-Babylonian Empire period and its propensity toward apprenticeship-based education (Brush, 2016). Irrespective of its actual origin, today's CTE is a more complex learning system balancing class time and hands-on experience.

Students training for specific vocations began centuries ago, including what is presently consider vocational education and CTE (Kincheloe, 1995). Women typically gained domestic skills from their mothers whereas their male counterparts acquired specific trades by being mentored by skilled professionals in various lines of work. For example, young apprentices learned to repair footwear by shadowing the town's cobbler

or make horseshoes from the blacksmith. These types of hands-on, skills-based learning endured over the course of human history. As society progressed over time, so did the development of learning and career pathways (Kemple & Snipes, 2000).

The most significant development to U.S. vocational education occurred near the beginning of the 20th century. Prior to the Great Depression, society was becoming more industrialized (Lewis, 1998). Agriculture became less profitable and children from rural areas were consistently attending already overcrowded schools. At the same time, these schools were ill-prepared for the influx of immigrants migrating to the United States. Conversely, factory-based industries needed laborers, as did many in-demand trade professions. Many workplaces employed young people, but the United States passed its first child labor law in 1916, which endeavored to limit child labor (Nardinelli, 1990). It was no longer acceptable for children to accompany their parents in the workplace and learn a trade hands-on; many lawmakers considered such practices as harsh and unsafe for children (Stern, Dayton, & Raby, 2000). Subsequently, to aid industries in finding skilled workers and help schools deal with increasing student populations, U.S. high schools began to offer vocational education programs.

The Smith-Hughes Act of 1917 became the first law to approve federal funding for vocational education programs in U.S. schools (Steffes, 2014). This Act acknowledged vocational education as appropriate training for specific prospective learners who did not need to earn an advanced degree to perform their job duties, such as plumbers, mechanics, and factory workers. They completed their training in focused vocational programs associated with high schools and a specific trade (Steffes, 2014).

The formation of these vocational programs theoretically resolved societal issues such as overcrowding in classrooms and the immense need for a skilled workforce (Steffes, 2014). However, these challenges remained. For the most part, students assigned to vocational education programs were often migrants or indigent children from rural areas. These groups were already greatly marginalized and not afforded the opportunity to pursue conventional curriculum as such privileges were reserved for students groomed to go on to college; even if they wanted to, many migrant and rural students were not allowed to academically advance (Prosser & Quigley, 1949). Space in traditional classes at high schools continued to be set aside for middle- and upper-class Caucasian students. Disadvantaged students were limited and discouraged from pursuing anything outside of rudimentary professions and learning the skills necessary to sustain jobs and enter the workforce in a timely manner. If they tried to change career paths later down the line, they often realized they had little or no training in core subjects, which thereby prevented them from returning to college or switching careers.

Although the structure of the national education system continued to advance, states and local educational agencies took on the duty of educating children (Rothbard, 1975). Throughout this era, schooling took on various forms, including classroom instruction, home tutoring, and apprenticeships. As different regions assumed responsibility for their students, more affluent areas with better resources were afforded the luxury of offering their students an enhanced learning experience. The disproportionate distribution of resources from community to community resulted in a persistent inequity (Rothbard, 1975).

In response to educational inequalities related with poverty, in 1965 the U.S. Congress adopted the Elementary and Secondary Education Act (ESEA; Paul, 2016). ESEA served as the groundwork for President Lyndon B. Johnson's *war on poverty* (McLaughlin, 1975). This law brought educational inequities into the forefront of the national conversation on poverty and represented a landmark commitment to equal access to quality education (Jeffrey, 1978). ESEA is an extensive order providing resources for primary and secondary education emphasizing higher standards and accountability. As explicitly outlined in ESEA, funds are allocated for professional career development, instructional materials, means to reinforce educational programs, and encouragement of extensive parental engagement. This legislation was enacted on April 9, 1965, and its mandates were to be carried out over five years. The government has reassessed and recertified the Act every five years since its ratification. Over the course of these reauthorizations, a variety of enhancements and amendments were instituted. This piece of legislation resulted in the establishment of the Vocational Education Act, which focused on employing institutions of learning to cultivate a skilled work force (Rojewski, 2002). Along with a skilled labor force, emphasis was placed on the social importance of meeting economic demands (Rojewski, 2002). One of the significant outcomes of ESEA was the development and implementation of Title I. Title I funds are used to increase student achievement by making education equitable, thus enhancing programs for students who live in low-income areas (CDE, 2014).

The Perkins Act of 1990 strived to resolve continuing issues on inequity. Section 521 of the Perkins Act (P.L. 101-392) defined vocational education as organized educational programs offering a sequence of courses directly related to the preparation of

individuals in paid or unpaid employment in current or emerging occupations requiring other than a baccalaureate or advanced degree. The Perkins Act provides vocational programs to young students as a means for them to approach their educational career objectives with fewer limitations. Currently, students can begin their CTE courses in high school or after obtaining their diplomas or GEDs and leave prepared to either go right into a career or continue working toward a four-year degree.

The Perkins Act was designed to allow Americans to compete in the expanding global economy by funding programs converging the need of earning livable incomes while adapting to a variety of learning styles to prepare students for both postsecondary education and gainful employment. Although a certain stigma about CTE persists today, that no student would choose CTE if he or she had other alternatives, these programs now include school-based and work-based training through valuable community business partnerships (Billett, Ehrich, & Hernon-Tinning, 2003). Many CTE programs employ the use of new technologies and computer-based resources, such as online courses, to allow students to excel in school and the workplace.

To better understand the skills needed by today's 21st century CTE faculty, one must review the landscape of higher education that created the necessity for the development of new and changing faculty mentoring approaches to meet the needs of a diverse student population (Yun., Baldi, & Sorcinelli, 2016). A new breed of students are enrolling in CTE programs. Trade and vocational schools are no longer viewed as repositories for students who cannot handle the academics of traditional high school or learners lacking aspiration, which was long ago the stigma of such programs. Today, trade and vocational schools have more rigorous academics that includes hands-on

training (Mullins & Jolicoeur, 2017). CTE institutions are increasingly viewed as valuable to 21st century employers; as such, institutions are preparing the future workforce for jobs in fields experiencing exponential growth opportunities, including allied healthcare, criminal justice, computer science, and culinary arts (Lynch, 2000).

The relationship between formal and vocational education can be traced back for centuries. Byrd (2001) affirmed the formation of medieval guilds was adopted by early institutions of learning, which consequently gave rise to the current educational systems. This interrelated relationship between education and the need for a skilled workforce was an intricate part of the American fabric throughout the conception of modern society. Validation of such connections become more evident in the current American school system, as evidenced by the 2014 adoption of the Common Core State Standards (CCSS) by most states (CDE, 2014). The CCSS explicitly identify the significance of learners establishing competence in English language arts and mathematics (CDE, 2014).

Historically, vocational education was vast, far-reaching, and in many ways responsible for the formation of society (Epstein, 1998). Antiquity is full of instances of trades being conveyed to societies' youth. Per the Holy Bible, Jesus Christ of Nazareth was trained by Joseph in the family trade of carpentry. Artisans and merchants formed medieval guilds, in which apprentices were developed as a way of controlling and sustaining the guilds practice while supporting the professional advancement of the association (Epstein, 1998). This primitive form of apprenticeship laid the foundation for the mainstreaming of contemporary academic institutions of learning.

CTE programs, often delivered through trade schools, career colleges, and technical colleges, continue to prepare students for careers employing a skills-based

approach (Mullins & Jolicoeur, 2017). Those interested in careers such as allied health occupations, event planning, accounting, graphic design, plumbing, or law enforcement can train at a vocational school. CTE programs typically result in a certificate, license, or associate degree (Texas Education Agency, n.d.). CTE programs provide a series of courses preparing students for the contemporary workforce with comprehensive and relevant material (Lewis, 1998). CTE content is purposefully aligned with appropriate academic standards and applicable technical knowledge and skills essential in preparation for further education and careers in current and emergent industries. Students who complete such programs are then equipped to begin their careers or earn advanced degrees.

The Need for CTE

Crucial conversations with students about career pathways may be a difficult exchange. Often, students lack an authentic concept of their options; they hear about the push to go to college but may feel overwhelmed with how to choose a school and consider a major (Kolko, 2013). Students from homes with family members who attended college have an advantage over students without that history. However, the college admissions process changed tremendously over the last few decades; it has become challenging for many students to navigate the multiplicity of information available, which often leaves students without a clear sense of direction (Moore, 2018).

Compounding the issue, CTE students often face uncommon challenges and preference for tactile learning environments, which makes CTE a more appropriate option for students requiring or desiring a more practical, real-life approach to gaining a marketable set of skills (Lynch, 2000). Frequently, students complete their secondary

education without a sense of direction related to their career paths or postsecondary educational goals. Students may be overwhelmed by all the potential career options now available or unaware of emerging industries that may be of interest. Being involved in CTE programs can act as a compass for future endeavors. At a time when new types of jobs are emerging daily, CTE can be a critical component in introducing learners to new and innovative industries and more current opportunities (Lynch, 2000). Through CTE courses, students may be exposed to unique vocations that pique their interest. Consequently, this type of training provides them with a running start prior to graduation. Further, it is possible for students to learn the original field of study they thought was appealing was not a good fit (Moore, 2018). With early career exposure through CTE, they can focus their attention elsewhere while still attending school.

CTE has become a major component of the American education system over the past several years (ED, 2012). CTE provides students with practical skills often essential to enter the workforce in a timely manner. The National Career Clusters Framework (2019) acts as a structuring device for CTE programs, offering constructs for curriculum design and instruction. The National Career Clusters Framework identified 16 different career fields, representing 79 career pathways to assist learners in navigating their way to successful outcomes relating to career choices and higher education endeavors. The framework also serves as a model in formulating courses of study, thus bridging the gap between secondary and postsecondary education systems and creating distinctive student plans of study for an extensive range of career options. As such, it helps learners discover their interests and passions, and further empowers them to choose the educational pathway more likely to lead to success in high school, college, and career objectives.

CTE Students

CTE students are derived from all walks of life and represent a variety of segments of society. The shifting face of higher education as it relates to vocational education created challenges and opportunities unlike any seen in history (Jaschik, 2014). Different cross-sections of the population have diverse needs CTE opportunities can address. CTE programs can be the best option for students from economically disadvantaged backgrounds who cannot afford traditional college, students with intellectual challenges who may struggle with the academic rigor of traditional college courses, and students with other dissimilarities compounded by stressful life circumstances (Lynch, Engle, & Cruz, 2010). CTE programs are also good options for students looking to enter the workforce quickly or who desire a career path that does not require a bachelor's degree. CTE programs equip students with tangible skills required by organizations and industry leaders to address the expanding skills gap and ever-evolving workforce needs. One of the most impactful benefits CTE can provide is industry-based certifications (Hansen & Leuty, 2012). These certificate programs integrate relevant coursework with hands-on training to further validate students' mastery of learned concepts and prepare them for jobs in the field. Through CTE programs, students can quickly learn a trade and enter the workforce, which is beneficial to them personally and to the greater economy (Gordon, 2014).

CTE students are often faced with unique challenges and require concentrated efforts to help steer them in the direction best suited for their academic and career objectives. Historically, CTE students struggled financially, faced academic difficulties, had issues of low self-esteem, and experienced language barriers or other dissimilarities

exacerbated by hectic or traumatic life events (ED, 2017). However, student needs are not limited to such disparities and many students today simply need guidance as to what career path to pursue. CTE programs equip students with the tangible skills required by organizations and industry leaders to attend to the expanding skills gap and ever-evolving workforce (Moore, 2018). As global commerce and learning environments evolve, being adaptive to a technology-based global domain is key for success (O'Driscoll et al., 2019). As such, CTE programs are becoming more skills-based than ever before. Such workforce progressions caused the CTE industry to re-assess how to best equip learners with the necessary competencies for their careers and possible higher education objectives (Daggett, 2005). CTE certifications can help students stand out in an increasingly overcrowded pool of candidates to jump start the trajectory of their career journey (Hudnett, 2016). Earning a certificate should ideally inspire self-sufficiency, thus further planting the seed of personal autonomy.

Student Self Efficacy

Self-efficacy is one's innate ability to believe he or she can achieve personal goals and the self-confidence to do so (Johnson, 2016). Albert Bandura (2008) characterized self-efficacy as the individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments. It reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment. For educators, this is an important element of human behavior that can be fostered to optimize the students' learning experience. Self-efficacy is the confidence people have in their abilities, specifically as it relates to the capability to face and successfully complete challenges (Bandura, 2008). General self-efficacy refers to people's overall belief in their

ability to succeed, but specific self-efficacy offers many more forms tailored to a skill or behavior (e.g., academic, parenting, sports; Bandura, 2008). High levels of self-efficacy and self-esteem may appear interchangeable; however, self-esteem is comprised of distinctly different features.

Self-esteem. Self-esteem is conceptualized as a general or overall feeling of one's worth or value (Neill, 2005). Whereas high self-esteem is considered a state of feeling one is perfectly acceptable as-is, self-efficacy is more focused on the feeling one is up for and able to accomplish a specific challenge (Manning, 2016). Self-esteem is essential in and outside the classroom. In terms of academic self-efficacy, students are motivated to meet various challenges based upon many factors. Educators, auxiliary faculty, and parents can foster student self-esteem and self-efficacy for certain tasks by accentuating all things positively, avoiding harsh criticism, and maintaining realistic expectations for student outcomes (Watson, n.d.). Dweck (2014), a proponent of the growth mindset approach, argued using a particular goal orientation (e.g., learning goal, performance goal) to base feedback upon was more effective than having faculty praise students in a general sense (i.e., commend the learner's specific effort and technique). For instance, rather than the general phrase "I am proud of you," feedback should emphasize approval on the task or process, such as "I noticed you accurately held the instrument secure with your left thumb for stability."

It is essential to recognize the learning opportunity in mistakes, such as reflecting on mistakes and focusing on what could be gained from the error (Figliuolo, 2017). This allows the learner to concentrate on the positive, not the negative. Supportive faculty must remind and assure students everyone makes mistakes, and it is how mistakes are

handled that makes the difference and governs better outcomes going forward. Thus, errors should be regarded as learning opportunities; powerful learning can often be the aftereffect of a mistake (Figliuolo, 2017). CTE faculty have the potential to nurture a growth-minded classroom. This posture could help with academic performance, support social skills, and encourage students to cultivate and sustain varying types of relationships. As students develop self-esteem, academic competence increases (Manning, 2006). Interactions with peers and faculty are typically more positive with a healthy dose of self-esteem.

Motivation. Although self-efficacy and motivation are closely intertwined, they are two distinct concepts. Self-efficacy is based on an individual's belief in his or her aptitude to achieve, whereas motivation is based on an individual's intimate desire to achieve (Manning, 2006). Those with high self-efficacy more than likely also have high motivation and vice versa, and thus a positive sequence emerges based upon actual occurrences. An individual gains or maintains self-efficacy by experiencing success; however, that success also generally provides a boost in motivation to continue learning and making progress (Mayer, 2010). This relationship can also develop in the appropriate direction to create a sort of success cycle; when people are highly motivated to learn and succeed, they are more likely to achieve their goals, giving them an experience that contributes to their overall self-efficacy (Mayer, 2010). According to Bandura (1997), self-efficacy is related to confidence. Confidence is a nondescript term referring to strength of belief. Perceived self-efficacy refers to belief in one's agentive capabilities that one can produce given levels of attainment (Bandura, 1997). Thus, motivation and

self-efficacy can be simultaneously developed, though they remain distinct constructs (Schunk & Zimmerman, 2007).

Faculty Effect on CTE Students

Instinctively, people understand highly effective faculty have an affirmative effect on the daily lives of students and their lifetime educational and career ambitions (Tucker & Stronge, 2005). People realize empirically such faculty ultimately have a direct influence in enriching student learning outcomes. Tucker and Stronge (2005) asserted effective faculty nurture a student's self-efficacy and mindset about school and learning, and faculty efforts essentially fuel enhanced student achievement. A wide range of individual and professional attributes are associated with higher levels of student achievement. For instance, it is understood communication skills, verbal ability, content knowledge, pedagogical knowledge, certifications, aptitude to employ a vast scope of teaching strategies, and an innate passion for the subject matter or field of study exemplify the most effective faculty (Adams, 2010).

The powerful and transformative impact of effective faculty is something hopefully most people experienced and can appreciate on some level. Most people recall exceptional faculty who made learning an interesting and stimulating experience (Tucker & Stronge, 2005). Such faculty encompassed an authentic passion for the subjects they taught and genuine care for the students they served. Dedicated faculty encourage learners to explore innovative ideas, think deeply about the subject matter, engage in more challenging activities, and pursue professions in a specific field of study (Tucker & Stronge, 2005).

Faculty Mentoring

Mentoring is commonly misidentified or used interchangeably with coaching (Cox, 2001). Though closely related, they are distinctly different. A mentor may coach; however, a coach is not considered a mentor (Feiman-Nemser, 2003). Mentoring is based on relationship building and personal development, whereas coaching is more functional and focused on completing a fundamental task. Mentoring focuses on the individual mentee more holistically and his or her path for fulfillment (Feiman-Nemser, 2003). Faculty who mentor students encourage them to talk about their personal values, find emotional balance through their individuality, and find meaning in life by creating a picture of the future so they can see who they want to become (Bowers et al., 2016).

Faculty mentoring is not solely a matter of delivering curriculum. Mentors are not typically responsible for student schedules, class rotations, or academic progress. As outlined in research from the Women's Center of the University of Dayton (2014), mentors provide the means within a didactic setting for learners to explore and cultivate their individual talents and abilities through a structured approach. This approach integrates the dedication of faculty mentors who possess a high level of expertise and genuine interests in nurturing student development within the learning environment (Johnson, 2007).

In analyzing the literature on mentoring practices, Penner (2001) described the characteristics of mentors in higher education as primarily serving a career or contributory function such as an educator, coach, or sponsor in addition to providing an inherent or psychological function such as a confidant or professional role model. As boundaries are fundamental in all relationships, mentoring in higher education involves

significant grace and appropriate guidelines for both mentors and mentees such that these roles and contributions can easily withstand ethical evaluation (Penner, 2001).

Faculty-student relationships can shape a student's academic and emotional development through mentoring (Johnson, 2016). CTE faculty represent a unique type of leadership in their classroom. Nurturing the diverse needs of CTE learners involves creating connections. Utilizing the resources of time and the development of thoughtful processes in the areas of leadership development, mentorship and professional learning communities focused on vertical alignment ensure successful teacher leaders in CTE (Cox, 2001). Developing well-rounded students holistically is an investment that can potentially yield high dividends in human capital. Studies outlined the various advantages of effective faculty-student mentoring (Johnson, 2016).

Baker and Griffin (2010) asserted mentors provide encouragement ranging from concentrated skill fulfillment to career guidance and affirmation of achievement. They acknowledged several potential roles of the faculty mentor. For instance, the CTE faculty mentor may simultaneously act as an advisor, instructor, employer, and agent of socialization. It was further affirmed faculty mentors may be developers focused on their mentees' future outcomes, endeavoring to cultivate meaningful learning while supporting students seeking to pursue academic and career objectives. Faculty mentors modelled expected behaviors and often provided individual guidance for student development in their chosen areas of study (Baker & Griffin, 2010). Ultimately, such efforts can lead to richer learning opportunities for the faculty and students in their CTE programs (Sinek, 2011). Throughout the spectrum of research, theorists concurred mentoring could be related to a broad scope of positive outcomes for mentees. Mentoring was found to be a

constructive approach for positive youth development and a deterrent of risky youth behavior, and a way to improve academics, retention, and ultimately the success of learners (DuBois & Karcher, 2005).

Teaching through Mentoring

Teaching through mentoring involves committed faculty gaining the trust of the student through one-on-one support beneficial in the student's educational endeavors (Johnson, 2016). Multiple benefits stem from mentoring. Mentors help students overcome socioeconomic disadvantages, intellectual challenges, and other dissimilarities (Brown et al., 2005). Students who need extra support benefit from mentors devoted to their success in the learning environment. High levels of faculty mentoring in the classroom setting helps cultivate positive thinking, thus yielding favorable student outcomes. Anderson and Ackerman-Anderson (2010) stated, "Transforming mindset is a prerequisite to sustained change and culture" (p. 19). Faculty members serving as mentors can help students transform their mindsets and help them succeed through ongoing encouragement and guidance.

A student's prior knowledge and experiences are central to assessing educational outcomes (Kaufman, 2013). Studies relating to this knowledge frequently focused on the difficulties experienced by students while learning, which are often defined as misconceptions. Mindfulness of misconceptions commonly encountered by students can be beneficial to faculty (Kaufman, 2013). For instance, as the designated faculty gain experience, they are believed to gain knowledge of typical student misconceptions (Sadler, Sinner, Coyle, Cook-Smith, & Miller, 2013). This in part can explain improved learning outcomes for students with more experienced instructors (Ladd & Sorensen,

2017). Furthermore, awareness of potential obstacles new learners may encounter can help counteract faculty's expert blind spot where, as qualified experts in the field of study, there can be difficulty in predicting the difficulties experienced by beginners (Guzdial, 2015; Nathan & Petrosino, 2003).

Often, CTE faculty may attempt to identify problems by characteristics of the issue, such as categorizing all problems involving a particular theory. Although the classification of the abilities of experts may be helpful in establishing learning objectives, just cataloging the fact learners have not yet fully mastered a concept can be conveyed in an unconstructive manner and be dismissive of students, which does not contribute to a conducive learning environment that holistically nurtures diverse learners (Willingham, Hughes, & Dobolvi, 2015). A delicate balance must be achieved. As an alternative to this type of grouping, utilizing student prior knowledge serves as a valuable resource for learning, which may facilitate more effective pedagogy. Individuals learn differently. There are different levels of competency in learning based on a variety of factors. In the CTE setting, kinesthetic learning is the principle foundation of all actions. Teaching must be kinesthetic if the learning objective is kinesthetic. If a concept can be practiced using multiple modalities, frequency of exposure can be helpful, but the most significant ideology is relating the content to applicable modalities opposed to matching modalities to student learning styles (Willingham et al., 2015). It is the responsibility of the CTE faculty to conform to the diverse needs of the population they serve.

Faculty Mentoring in the CTE Setting

CTE faculty teach in a setting requiring the amalgamation of academic and occupational instruction, integrating theoretical learning and practical hands-on skills

while working with a unique and diverse student population with distinct learning objectives and needs. CTE faculty must possess industry-based experience and comprehensive content knowledge pertaining to a specific discipline critical in the vocational classroom; however, they often lack a formal educational background (Kerna-Jamerson, 2012). Rather, CTE faculty often bring years of experience in their field and receive ongoing training to keep their skills current (Kerna-Jamerson, 2012).

If CTE faculty members are earnest about mentoring their students, it can be beneficial for the institutions, students, and faculty. Faculty connecting with students cultivates relationships focused on fostering a student's choice of program and career development (Penner, 2001). Students with mentors are less likely to fall prey to poor personal or professional choices or moral failure because of the benefit of being in an open, caring relationship with a mentor. Effective mentors are active listeners who lead by example to support their mentees (Penner, 2001). Such faculty relationships with CTE students can encourage and motivate students to move beyond their comfort zones, promoting independence and balance.

Faculty mentoring of students is a principle component in the CTE classroom environment. In a mentoring relationship, the faculty member and student work together to identify and build the student's abilities toward a successful career path (Rosenberg & Heimberg, 2009). Mentoring combines role modeling, apprenticeship, and nurturing. The faculty mentor acts as a teacher, sponsor, guide, and counselor, and often provides moral support and encouragement (Rosenberg & Heimberg, 2009). The most important role of the faculty mentor is to assist and facilitate the realization of the CTE learner's dream (Rowley, 1999). Such commitment is an innate and organic process rooted in the belief

mentors can make a significant and positive impact on the lives of their students. This belief is not grounded in conceptions of what it means to be a mentor; rather, it is grounded in the knowledge mentoring, though at times a challenging endeavor requiring significant investments of time and energy, is well worth the process to help students reach their fullest potential (Rowley, 1999). As such, mentoring in the CTE field deserves additional research to better understand the process and outcomes.

A constant theme in educational research is that when faculty are setting high standards in the traditional or CTE classroom, this is a reliable device for predicting high achievement with all types of learners (Lemov, 2010). This is still true with learners historically unsuccessful in academic pursuits. Research examined the greatest academic gains of diverse learners through various testing approaches. The drawback from random testing is that it often involves a wide range of procedures, philosophies, and strategies that may exclude some learners. The consistency among effective faculty is their commitment to creating and sustaining high expectations for their students; most students thrive in a high-performing classroom with high expectations for learners who may not yet have the highest expectations for themselves (Lemov, 2010). A fundamental factor to student success is the careful construction of a beneficial classroom culture; faculty who observe exceptional student outcomes establish high expectations as a standard (Amaro, 2018).

Theoretical Framework

Zachary's (2000) four-phase mentoring model suggests mentoring relationships move through four overarching phases, which he equated to the seasons of the growth of a plant:

- Preparing (tilling the soil before planting)
- Negotiating (planting the seed)
- Enabling (nurturing growth)
- Coming to closure (bringing in the harvest)

These phases of mentoring served as the theoretical framework underpinning this study.

Preparing. The four-phase model suggested the preparation stage starts with mentors developing self-awareness as they reflect on their own personal learning journey. Thus, they are preparing themselves to take on the responsibilities of having a mentee For example. the model cautions the mentor to avoid mentor cloning, which was referred to as projecting one's own experiences and goals onto the mentee. Rather, mentors must understand their role in facilitating effective relationships and learning opportunities to help the mentee reach his or her learning goals. Zachary (2000) suggested the mentor needs to explore his or her motivation for and readiness to be a mentor. During this self-reflection phase, the mentor assess his or her mentoring skills to identify areas of needed learning and development, and may pursue opportunities to fill any relevant gaps. The aim of the preparation phase is to evaluate the viability of the prospective relationship and ensure the mentor has the knowledge, skills, and motivation to serve as an effective mentor. During this phase, it helps to have an initial conversation with the mentee to determine how the mentoring relationship might be developed and identify they goals and potential strategies that may be employed to reach those goals. Such conversations can help mentors in their preparation for taking on a mentee and ensure they will be the right match for the mentee.

Negotiating. The negotiation phase of the Zachary's model is equated to the business phase of the relationship, where the mentor and mentee agree on learning goals, content, and processes. This phase was equated with planting the seeds, an initial process required for growth. During this phase, the ground rules for the mentoring relationship are developed. Together, the mentor and mentee must clarify expectations, assumptions, goals, and needs, and should establish norms for confidentiality, boundaries, and limits. It is often helpful to establish a mentoring agreement that details frequency of meetings, steps for communicating between meetings, responsibilities, mutual accountability, criteria and milestones for measuring success, and how to bring closure to the mentoring relationship. Defining these strategies and procedures at the onset of the mentoring relationship helps ensure both parties have a shared understanding of expectations and a document to reference should any issues arise.

Enabling. Under Zachary's model (2000), during enabling phase the learning relationship is implemented. This phase represents a period of growth for the mentee, similar to that of the plant once the seeds take root. In this phase, it is crucial for the mentor and mentee to build a level of trust and effective communication leading to a quality mentoring relationship. The nurturing of the mentee's growth is encouraged through establishing and maintaining an open and affirmative learning climate; providing thoughtful, timely, candid, and constructive feedback; and monitoring the learning progress and process to ensure the mentee's learning goals are met. This is the longest of the four phases and could take months or even years depending on the goals and expectations of the mentoring. During this phase, the mentor may take on a variety of roles, such as coach, confidant, critical friend, reviewer, and trainer. Through these roles,

the mentor listens carefully, provides valuable information, and offers strategies to help the mentee grow. This may include suggesting books to read, classes to take, or simply engaging in conversations where personal stories and experiences are shared. This phase is also vulnerable to many potential obstacles that need to be addressed. As such, it is important the mentor and mentee work collaboratively and uphold a strong working relationship where constructive criticism is welcomed as a learning opportunity.

Coming to closure. Zachary's model (2000) further suggested closure protocols should be established when the mentoring agreement is developed. This phase is equated to reaping the harvest, in which the bounty from the prior phases is realized and the hard work to make it happen is celebrated. The mentoring agreement should detail the steps for evaluating, acknowledging, and celebrating achievement of learning outcomes. Throughout the mentoring relationship, regular meeting should be established to check-in on progress toward learning objectives. Although mentoring may never end because mentors often say in contact with their mentees beyond the formal mentoring arrangement, a closing procedure serves as an opportunity to evaluate personal learning, celebrate success, and identify any follow-up that may be needed. Figure 1 captures the four stages of Zachary's model.

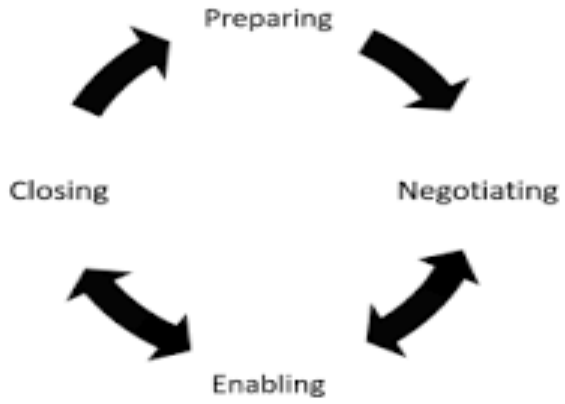

Figure 1. Zachary's four-phase mentoring model.

Summary

The educational history of the nation noted phases where traditional education was combined with CTE, and periodic intervals where subjects were separated and studied in isolation. Various educational advances provided means of improving society by preparing students to be vocationally trained, productive members of society. To gain a deeper understanding of the scope of how students think and learn, it was insufficient to merely consider the cognitive processes involved in learning. Mentoring extends beyond observation and giving advice; it is essential for mentors to consider students' intrinsic motivations and other relative features of their lived experiences that could affect the mentoring relationship and learning goals.

Chapter II provided a review of the literature pertinent to this study. Chapter III presents the methodology used to conduct the study, including the population, sample, data collection and analysis procedures, and limitations. Chapter IV details the findings emerging from the data. Chapter V presents the conclusions drawn from the data, along with implications for action and recommendations for future research.

CHAPTER III: METHODOLOGY

Chapter I presented an overview of the study and background of the research. The chapter provided the research question, significance of the research, definitions, delimitations, and the organization of the study. Chapter II examined and reviewed the literature focused on career and technical education (CTE) students, faculty mentoring, and the connection between education and career progression. The chapter highlighted the deficiency of literature regarding the intersection of faculty mentoring and the progression of CTE into higher education.

Chapter III outlines the methodology used to conduct this research study. It reiterates the purpose statement and research question, then presents the research design, population, sample, instrumentation, data collection, and data analysis plan. The chapter provides the details needed to replicate the study, along with descriptions of the measures taken to increase reliability and validity of the study. It was important to capture the experiences of the participants; as such, a qualitative research approach was used.

Purpose Statement

The purpose of this phenomenological study was to identify and describe the CTE mentoring experiences of adult learners who completed an allied health certification and subsequently went on to pursue higher education such as a bachelor's degree, from the lens of Zachary's four phase mentoring model.

Research Question

The following research question guided the study: What are the faculty mentoring experiences of former CTE students who went on to pursue higher education?

Research Design

The purpose statement and research question best aligned with a qualitative research approach. Quantitative research focuses on numerically measurable categories yielding computed outcomes, whereas qualitative methods allows for field work unrestrained by numerical assumptions (Patton, 2015). Because of the multifaceted nature of the subject matter and the multiplicity of potential variables steeped in the experiences of each individual, a qualitative phenomenological research design was the most appropriate approach for the study.

Within qualitative research, various approaches exist, such as ethnography, case study, phenomenology, and systems theory. When considering the purpose of this study, focused on the experiences of a group of people, phenomenology emerged as the most appropriate method. Patton (2015) described a phenomenological study as "gaining a deeper understanding of the nature of meaning of our everyday experiences" (p. 115). The use of a phenomenological study begins with the presumption all participants shared a similar experience, which was the phenomenon under investigations (Patton, 2015). The use of a phenomenological study allowed for the examination of the experiences of former CTE students who went on to pursue higher education.

The ethnographic viewpoint is typically implicated when the qualitative approach is field-based and the origin of the research is rooted in the examiner's background, which makes it from a personal vantage point based on his or her area of expertise (Patton, 2015). This study focused on the faculty mentoring experiences of former CTE students who went on to pursue higher education. Although the researcher has a background in CTE, the purpose of this study looked beyond her experience into the

connections between faculty mentoring and higher education; thus, ethnography was not the best approach for this study.

Case study research is appropriate to examine and describe how things work or the outcomes of a single group, referred to as the case (Patton, 2015). This method would be good for studying a single CTE center with excellent results. However, the focus of this study was mentoring experiences across multiple CTE centers, so case study research was not the best approach. Rather, phenomenology examines the lived experiences of the people who shared in the phenomenon. As such, it was the most appropriate qualitative approach for this study.

Population

Salkind (2011) described a population as a large group of similar subjects available for a research study. From the larger population, a researcher selects a smaller group, known as the sample, to conduct the research (McMillan & Schumacher, 2010; Salkind, 2011). For this research study, the population consisted of CTE students who went on to pursue higher education. The study was conducted in the state of California because of the vast number and diversity of CTE institutions in the state. In 2017-18, it was estimated 772,350 students were enrolled in CTE programs across the state

Target Population

Creswell (2012) and McMillan and Schumacher (2010) defined a target population as a smaller portion of the larger group the researcher identified based on the same characteristics as that of the total population. For this study, the target population was selected from southern California, specifically Riverside and San Bernardino Counties. This target population was selected because of convenience to the researcher

and being able to travel to conduct the interviews. Riverside and San Bernardino Counties are home to over 50 CTE institutions serving more than 48,000 students annually, providing CTE classes in 15 industry sectors and 58 career pathways. Taking these 48,000 students as a base, it was extrapolated that 25% of these students, or 12,000 students, were adult learners. From these 12,000 adult learners, it was further estimated approximately 1,184 students were enrolled in allied health programs in these two counties. If 79% of CTE students in California go on to pursue higher education, as CDE (2018) suggested, the target populations for this study was estimated as 936 adult learners enrolled in CTE programs, with a focus on allied health, who went on to pursue higher education. This target population was selected because it had ample size to fill the sample, and partially out of convenience to the researcher, as the researcher had a large network in this area.

Sample

McMillan and Schumacher (2010) defined a sample as a group of individuals within the population from whom data are collected. In qualitative sampling, the goal is quality over quantity; thus, a few cases studied in-depth provide meaningful insight about the topic (McMillan & Schumacher, 2010). A sample should be representative of the larger group and sampling is the process by which the sample is selected. For this study, the sample was comprised of 10 former CTE students, from Riverside and San Bernardino Counties, who went on to pursue higher education. To be included in the study, participants needed to meet the following criteria:

- Completed a CTE course of study within the past five years
- Completed a CTE certificate in the allied health field

- Resided in Riverside or San Bernardino County
- Pursued higher education beyond a CTE program

Purposeful and snowball sampling were used to identify participants. Purposeful sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2015). This involves identifying and selecting individuals especially knowledgeable about or experienced with a phenomenon of interest (Creswell, 2012). In addition to knowledge and experience, Tongco (2007) noted the importance of availability and willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner. An initial set of participants was selected based on the researcher's personal and professional network of other CTE instructors and administrators in Riverside and San Bernardino Counties. As an instructor in a CTE program, the researcher asked her colleagues about former CTE students they knew who pursued higher education. These colleagues were provided with an introductory email and text, including information on how to sign up or learn more about the study, that could easily be distributed to former students. Those who were interested were asked to contact the researcher.

Sampling Procedures

Snowball sampling was also used to identify participants. Snowball sampling refers to a nonprobability sampling technique where existing study subjects recruit future subjects from among their acquaintances (McMillan & Schumacher, 2010). Therefore, the sample group is said to grow like a rolling snowball. Thus, at the end of each interview, participants were asked to identify other former CTE students who went on to

pursue higher education that might be interested in participating in the study. For this research snowball sampling was appropriate as the study was its own unique niche; therefore, creating viable contacts through networking was prudent to gain access to the appropriate number of participants. Those identified were invited to participate until a sample of 10 CTE students who went on to pursue higher education was obtained.

Instrumentation

Qualitative research studies typically gather data through multiple approaches, such as interviews, observations, and artifacts. Collecting data through a variety of means permits the researcher to triangulate data and increase the validity of the research (Patton, 2015). For this study, data were collected through semi-structured interviews with open-ended questions.

Phenomenological interviews are used to study the lived experiences of a selected group of participants and are designed to investigate what was experienced, how it was experienced, and the meanings assigned to that experience (McMillan & Schumacher, 2010). As such, the interview process is a critical part of phenomenological research. The researcher used Zachary's model (2000) to generate an initial set of interview questions aligned with the research question. Next, the researcher worked with an expert panel of experienced researchers and experts in CTE to review and refine the list of open-ended questions. In semi-structured interviews, additional exploratory questions are used to clarify responses or to explore unanticipated data surfaced during the interview process (Patton, 2015). As such, the researcher worked with the expert panel to discuss potential probing and follow-up questions that could be asked during the interviews. The final set of interview questions is provided in Appendix B.

Expert Panel

Interview questions were validated by a three-person expert panel preceding data collection. The expert panel confirmed the instrument used in this study made appropriate inquiries. The expert panel assessed the interview questions and substantiated their aptness for the study. The expert panel consisted of three researchers familiar with CTE and qualitative research methods. To qualify as a member of the expert panel, the individual needed to hold a minimum of a master's degree and meet at least two of the following criteria:

- Over five years' experience in CTE
- Holds a leadership position within higher education in CTE
- Previously conducted qualitative research within the last five years

The members of the expert panel consisted of an ROP superintendent with 14 years of CTE experience, who held a doctoral degree and had conducted qualitative research in the last three years; a higher education director with 15 of experience in CTE, who held a doctoral degree and conducted qualitative research in the last three years; and an Executive Director of CTE with 12 years of experience in CTE, who held a doctoral degree and conducted qualitative research in the last three years.

Researcher as an Instrument of the Study

Pezalla, Pettigrew, and Miller-Day (2012) explained in qualitative research, the researcher serves as the primary instrument of the study because he or she developed the interview questions, conducted the interviews, analyzed the data, and presented the findings. Thus, unique researcher characteristics and personal biases can influence the collection of empirical materials. In short, because the researcher serves as the primary

instrument in a study, it is susceptible to several potential biases from the researcher. Managing partiality is of the utmost importance in any research study (Pezalla et al., 2012). During and prior to this study, the researcher was employed at multiple CTE institutions as a health science faculty member, which had the potential to perpetuate a certain degree of bias based on personal experiences in the CTE setting. As such, additional steps were taken to mitigate personal bias and improve the reliability and validity of the study.

Reliability

The researcher is aptly regarded as the primary instrument in a qualitative study (Pezalla et al., 2012). As such, qualitative research is often criticized for its subjectivity and unscientific inquiry approaches (Patton, 2015). In response, Patton (2015) suggested viewing the goal of a qualitative approach as bringing trustworthiness and authenticity to the role of the researcher. This was partially accomplished through applicable interview questions.

Reliability is the degree by which instruments produce stable and consistent outcomes. Reliability describes how an instrument continues to produce similar results when used in different circumstances or over time (Patton, 2015). Thus, reliability assesses consistency of the instrument to accomplish the same results. Reliability is crucial to the research design because it signifies the consistency of the research and the ability to rely on the research findings. Three measures of reliability were utilized to confirm the instruments being used could consistently be applied and yield accurate results.

Internal Reliability of Data

The accuracy of data collection, analysis, and interpretation are critical to internal reliability (Creswell, 2012). Expressly, internal reliability examines whether another researcher could draw similar conclusions by utilizing the same data (Creswell, 2012). Consistency of the data collection, data analysis, and interpretation was crucial to internal reliability. That is to ask, would another researcher draw the same conclusions reviewing the same data. For this study, the researcher employed data triangulation techniques using interview and artifact data collection strategies to strengthen the internal reliability. Internal reliability is the means by which the researcher utilizes various methods of collecting data to triangulate the results to present a broader scope of the topic being examined. By triangulating through various data sources, the researcher significantly augments the reliability of the findings to enhance the credibility of the study (Patton, 2002). McMillan and Schumacher (2010) asserted using different means of data collection allows for triangulation of the data throughout the study as different data collection techniques may yield unique perceptions thus increasing the veracity of outcomes.

External Reliability of Data

External reliability refers to whether another researcher would get the same results or conclusions by replicating the study (Creswell, 2012). External reliability also refers to generalization, or the ability of the findings to be applied to others in the population (Creswell, 2012). This issue of generalizability is less important for qualitative research because of the difficultly in recreating the unique situations, human

behaviors, and interactions experienced (LeCompte & Goetz, 1982). Given the results of this study were not intended to be generalizable, external reliability was less of a concern.

Inter-Coder Reliability

Tinsley and Weiss (2000) defined inter-coder reliability as the extent to which autonomous coders evaluated a characteristic of an interview or artifact and reached the same conclusion. It is for this reason the term inter-coder agreement is often used. Neuendorf (2002) asserted, "Given that a goal of content analysis is to identify and record relatively objective characteristics of messages, reliability is paramount. Reliability is essential; without reliability, content analysis is of no value" (p. 141). For this study, an outside researcher was asked to double-code approximately 20% of the data with the coding being compared to that of the primary researcher. The goal of 90% agreement in coded data was considered ideal and 80% was considered acceptable to ensure accuracy of themes from the coding (Lombard, Snyder-Duch, & Bracken, 2002). The reviewer had a doctorate and more than 20 years of experience conducting qualitative and quantitative research. She received the instrument, study procedures, data analysis process and interpretation to ensure the study was internally reliable and to reduce the presence of researcher bias. The expert researcher who performed the external review of the study was also utilized for the assessment of inter-coder reliability.

Validity

Content validity refers to the degree to which the data collected from the instrument aligns with the research question (Patton, 2014). Validity assures findings from the instrument are accurate and true. As the researcher is the primary instrument for data collection in qualitative studies, validity is predicated on the skill level and

competence of the researcher (Patton, 2014). The researcher managed this possible constraint by employing multiple strategies to safeguard the validity of the data.

Pilot Test

A pilot test using trial interviews was conducted with volunteer subjects prior to the actual collection of data. As the researcher is an instrument of the study, the researcher interview skills may influence the interview process. A mock interview checks for bias in the procedures, researcher, and interview questions (McMillan & Schumacher, 2010). The researcher conducted a mock interview with a person who met the study criteria but was not part of the study. Following a mock interview, the recording was reviewed by the external reviewer for feedback on delivery, pacing, and other interview techniques. This process helped improve and validate the interview skills of the researcher prior to data collection.

Data Collection

Data collection occurred in 2021 with 10 study participants. Special consideration was taken to protect participant rights. Confidentiality is the responsibility of the researcher and refers to the agreement of study participants regarding the handling of their data. To ensure discretion and in consideration of all participants prior to beginning data collection, the researcher gave each participant pertinent information concerning the study, provided the opportunity to consider all participation options, answered questions raised by each participant, and provided each participant with additional information as requested. Written consent was obtained from each study participant prior to conducting the interviews. The following steps were used to conduct the interviews:

- The researcher used her personal and professional network to identify potential participants. Those who qualified and were interested in participating in the study were asked to contact the researcher.
- When potential participants contacted the researcher, they were screened to ensure they met the study criteria. For those who met the study criteria, an interview was scheduled at a date and time convenient to the participant.
- Two to four days before the scheduled interview, the researcher emailed the participant to confirm the interview and provide the informed consent form (Appendix C).
- Prior to commencing each interview, the researcher offered an overview of the study and outlined the participant's rights, which included the right to discontinue or take any needed breaks during the interview process.
- After the participant signed the informed consent form, the researcher conducted the interview following the semi-structured protocol (Appendix B).
- Interviews were recorded using Live Script, a digital audio recording device.
- Following each interview, the researcher graciously thanked the interviewee for his or her contribution to the study and explained the next steps in the process relating to sharing the transcription for review.
- Additionally, early interview respondents were asked to identify other members of their subculture who meet the study criteria and may potentially wish to participate in the study.
- Once the interview was completed, it was transcribed and reviewed by the researcher for accuracy and then prepared for analysis.

Following the interview process, the researcher removed all identifying information to assure confidentiality and safeguard the identity of study participants. All audio files and transcriptions were retained in a locked filing cabinet in a locked office. The researcher alone had access to these items. Upon completion of the study, the audio files were immediately destroyed and the transcripts were kept in the locked cabinet drawer for three years after the study ended and then destroyed.

Data Analysis

According to Patton (2014), it is imperative a researcher gain a sense of the data in its entirety before attempting to separate material into themes and categories. This provides the researcher an aggregate view of the full data (Patton, 2014). The researcher employed a three-step model for analysis of the collected data. In this model, Creswell (2012) outlined the process steps as: (1) organizing and preparing the data, (2) reading and reviewing all the data, and (3) coding the data.

The researcher organized and prepared the data by transcribing the recordings. Transcriptions were shared with the interviewee for evaluation of accuracy, permitting the potential for valuable feedback. Once the transcripts were approved, the researcher read through and reviewed all the transcripts to obtain an aggregate view of the data. Next, the data coding process began using the following approach:

- All transcripts were scanned for themes related to CTE students who progressed to higher education based on their faculty mentoring experience; initial codes were developed based on the themes
- The researcher reviewed each transcript again, assigning codes to segments of text and adding new codes as needed

- The frequency of each code was calculated as an indicator of the potency of a potential theme emerging from the codes
- Codes were analyzed and grouped to develop common themes from the data; these common themes provided a deeper understanding of the faculty mentoring experiences and resulted in the key findings for this study

Limitations

Limitations are aspects of a study that may adversely affect the results (Patton, 2014). The researcher recognized and accepted the intrinsic limitations associated with the research, including the use of purposeful sampling. Every study involves some degree of partiality; therefore, it is crucial for researchers to be open and clear about the limitations of the study design so intentional strategies can be deployed to help strengthen the study (Patton, 2014). Three study limitations were identified.

- The study included a sample of 10 former CTE students who went on to pursue higher education. With this small of a sample, the findings may not be reflective of the larger population and the findings may not be generalizable.
- This study was limited to Riverside and San Bernardino Counties. As such, the findings may not be generalized to other regions of the state or country.
- This study relied on self-report. It is possible participants did not provide full and honest responses or shared information they thought the researcher wanted to hear rather than accurate portrayals of their experiences.

Summary

The purpose of this chapter was to explain how this phenomenological study was conducted. The purpose of this study was to identify and describe the faculty mentoring

experiences of CTE students who went on to pursue higher education. The research question and design helped to focus on the experiences of the participants. The data collection and data analysis procedures were expressed and outlined in detail. Chapter IV presents the findings from this study, and Chapter V provides conclusions, implications for action, and recommendations for future research.

CHAPTER IV: RESEARCH, DATA COLLECTION, AND FINDINGS

Chapter I introduced the study and background to the research. Chapter II reviewed the literature on career and technical education (CTE), student higher education choices, and faculty mentoring experiences, which underscored the absence of such a study in the context of CTE faculty mentoring experiences. Chapter III outlined the methodology of this phenomenological study. This chapter presents a summary of the research methods, data collection process, and data analysis techniques, followed by a comprehensive analysis of the data to encapsulate the study findings.

Purpose Statement

The purpose of this phenomenological study was to identify and describe the CTE mentoring experiences of adult learners who completed an allied health certification and subsequently went on to pursue higher education such as a bachelor's degree, from the lens of Zachary's four phase mentoring model.

Research Question

The central research question guiding the study was: What are the faculty mentoring experiences of former CTE students who went on to pursue higher education?

Research Methods

The purpose statement and research question best aligned with a qualitative research approach. Because of the multifaceted nature of the subject matter and the multiplicity of potential variables steeped in the experiences of each individual, a qualitative phenomenological research design was the most appropriate approach for the study. Although other methods were considered (e.g., case study, ethnography), the intent of this study was to capture and describe the lived experiences of former CTE students

who went on to pursue higher education beyond their CTE certificate of license. Given this purpose, focused on the experiences of a group of people, phenomenology emerged as the most appropriate method.

Population

This study investigated the mentoring experiences of adult learners who completed an allied health CTE course of study and subsequently went on to pursue higher education. This study was also delimited to California because of the vast number and diversity of CTE institutions in the state and the location of the researcher. Thus, the population consisted of former CTE learners in the state of California who went on to pursue higher education. In California during the 2017-18 school year, it was estimated 772,350 students were enrolled in CTE programs across the state (CDE, 2018).

Target Population

The full population was too large to study, so a target population was selected. The population was narrowed to CTE adult learners who completed an allied health certificate and went on to pursue higher education, such as a bachelor's degree. Although CTE data are not presented at this granular level, it was estimated 25% of CTE students in California are adult learners, which equated to approximately 193,087 students (CDE, 2018). It was also estimated 9.87% of CTE students in California were enrolled in allied health programs. Based on this data, it was extrapolated 19,057 CTE students fell within the initial target population criteria. Data further suggested 79% of CTE students went on to pursue higher education in 2017-18 (CDE, 2018). This further narrowed the target population to 15,055 adult CTE students who completed an allied health certificate and went on to pursue higher education. Because 15,055 students across California was not a

realistic population for qualitative research, the target population was further narrowed to Riverside and San Bernardino Counties.

Riverside and San Bernardino Counties are home to over 50 sites offering CTE education serving more than 48,000 CTE students annually. Taking these 48,000 students as a basis, it was extrapolated that 25% of these students, or 12,000, were adult learners. From these 12,000 adult learners, it was further estimated approximately 1,184 students were enrolled in allied health programs in these two counties. If 79% of CTE students in California go on to pursue higher education, as the data suggested (CDE, 2018), the target populations for this study was estimated as 936 adult learners enrolled in CTE programs, with a focus on allied health, who went on to pursue higher education. This target population was selected because it had ample size to fill the sample and out of convenience to the researcher as she had a large network in this area.

Sample

For this study, the sample was comprised of 10 former CTE students with allied health certificates from Riverside and San Bernardino Counties, who went on to pursue higher education. To be included in the study, participants needed to meet the following criteria:

- Be an adult learner
- Completed a CTE allied health certificate within the past five years
- Attended CTE courses in Riverside or San Bernardino Counties
- Pursued higher education beyond a CTE program

Purposeful and snowball sampling were used to identify participants. An initial set of participants was selected based on the researcher's personal and professional

network of other CTE instructors and administrators in Riverside and San Bernardino Counties. As an instructor in a CTE program, the researcher asked colleagues about former adult learner CTE students they knew who completed an allied health certificate and pursued higher education in the past five years. Those who participated in the study were then asked to recommend additional people they knew who met the study criteria and may be interested in participating in the study. This process was used until 10 participants were identified.

Demographic Data

To protect the confidentiality of participants, limited demographic information was collected about the 10 participants. All the participants were former CTE students who earned allied health certificates within the past five years. All 10 lived in either Riverside or San Bernardino County in southern California. For this study, the allied health occupations represented included four from dental assisting, three from medical assisting, and three from emergency medical technician.

Presentation and Data Analysis

The interview data were coded and reviewed for themes. To gain information about the participants' mentoring experiences, they were asked about areas in which mentors provided assistance, how mentors influenced their career decisions, mentor influence on their pursuit of higher education, and the characteristics for their mentoring relationship. The following sections present the findings in these areas.

Preparing: Mentoring Relationships Encompassed Many Topics

To help understand the mentoring relationships experienced, participants were asked about the types of issues for which their CTE mentor provided assistance. Three

themes were common among the participants, indicating the faculty mentoring experiences of CTE students who went on to pursue higher education included assistance with the coursework and developing student skills, general life encouragement and guidance, and job and career advice. Table 2 presents the themes along with the number of respondents who mentioned each theme and the number of references to the theme.

Table 2

Preparing: Areas in which Mentees Received Assistance

	n	Frequency
Grasping knowledge, and developing skills	8	12
Receiving life encouragement and guidance	6	9
Receiving tailored job and career advice	6	8

Grasping knowledge and developing skills The most common theme about areas in which CTE mentors assisted was with course content and developing their knowledge and skills, mentioned by eight of 10 participants, and referenced 12 times. The initial phase is where the connection starts, and the foundation is being set to plant the seed of higher education. Several respondents described having a sense of entering into a professional relationship and environment from the onset. The mentees reported working in concert with their mentors to develop new, marketable skills that they could use beyond the CTE classroom environment. The inception of the mentoring connection is crucial a foundation to set. Participants referenced terms such as experienced, highly competent, and professional in describing attributes of their CTE faculty mentor. Participant responses indicated they acknowledged and embraced how an engaged faculty member in the CTE setting offered more than the basic curriculum of the program. Several participants described being exceptionally led and consistently receiving

individualized guidance in the delivery of curriculum and tactile skills by their mentor. For example, Participant 4 shared about her mentor,

> She was the faculty there to teach the basic fundamentals of dental assisting. I knew that I wanted to be like her because she was very engaging. And she was so knowledgeable about all things dental and made it so interesting and fun every day of learning.

Participant 10 provided another example of how her CTE mentor assisted with coursework, saying,

He would always ask, "Do you need help with anything? Do you need assistance or anything?" His concern was genuine. He was one of those people who would was willing and able to help me with my schoolwork. I would send him my case studies. I would send them to him, and he would proofread them for me, before I turned them in. This became a routine and was so helpful. Participant 7 talked about how meaningful it was for the mentor to effectively translate content knowledge based on experience, sharing,

> I think it is all about being respectful of each other. Professionalism and being able to convey knowledge of the subject being taught. I have encountered faculty who have years of experience but cannot always transfer the information to others. Also, being flexible, trying to make things work, and being positive and supportive in all circumstances.

Receiving life encouragement and guidance. For this study, a CTE mentor was described as an experienced faculty member who also acts as a trusted confidant who provides guidance and support in any number of ways under varying circumstances,

including guidance going beyond academics. This theme was mentioned by six participants nine times. The students explained they were often confronted with situations where sound wisdom and advice from their CTE mentor was essential and appropriate. For example, Participant 3 explained how she felt she could talk to her mentor about anything, regardless of whether it related to the CTE program. This sentiment was highlighted by Participant 6 who said,

> She did live a healthy lifestyle and encouraged me to do the same. She did so in such a way that I was encouraged to try harder than I had in the past with this very personal struggle. I guess she inspired me in and outside of the CTE setting.

CTE mentors also helped prepare their students for life beyond the classroom. For example, Participant 9 who commented,

> It definitely is good that he had me mentally and competently prepared for some of the things I encountered. I witnessed lot of trauma out in the field, but thanks to him being so knowledgeable about so many things, and was so stern and meticulous with me again, with all the details, I was more than ready.

Receiving tailored job and career advice. Six respondents described receiving sound advice on job opportunities and career objectives to work toward. They explained their CTE mentors acted as career counselors, helping them to brainstorm career possibilities, define career goals, and establish action plans to reach those goals. The mentors also served as a source for networking opportunities for novel learners who need guidance. For instance, Participant 5 described,

> My mentor made it easy to be able to find knowledge about so many different fields in healthcare, which helped. It became more self-motivation for me with his guidance and constant encouragement to push yourself beyond your limitations, he would always say, "what are your next steps?" At that point, I have always been interested in learning new things but the idea of going to college when I was barely graduating high school, it was kind of a lot to even consider. Honestly, a bit scary.

Negotiating: Mentor Experiences Influenced Career Direction

The faculty mentoring experiences of participants indicated their CTE faculty mentor was instrumental in encouraging them to strive toward higher education and shared different career options in their chosen field of study. The theme related to mentors encouraging the participants to pursue higher education was referenced seven times by five participants. Additionally, mentors exposing the CTE students to different career options was a second theme that emerged, referenced six times by five participants. During this phase the groundwork has been set and is now time for mentor and mentee to begin the formal learning journey, this is when norms and mores are established and is an opportune time for the seed of higher education to be planted. (Table 3).

Table 3

Negotiating: Mentoring Experiences Influenced Career Direction

	n	Frequency
Mentors pushed mentees into higher education	5	7
Mentors shared career options	5	6

Mentors pushed mentees into higher education. The aim of higher education in the 21st century concerns providing students with the necessary skill sets to thrive in an evolving environment and helping them develop the confidence to execute those skills (O'Driscoll et al., 2019). Often, one of the of the roles of the engaged CTE faculty mentor is to encourage the pursuit of higher learning, which was mentioned by five of the participants. This phase is likened to the professional level of the relationship, as the mentor and mentee work in concert on learning objectives, course content, and procedures. This phase was equated with planting good seed in good soil that was established in the previous preparation phase, planting is an initial process required for growth. During this phase, the ground rules for the mentoring relationship are developed. Together, the mentor and mentee cultivate expectations, establish standards, target aspirations, and needs, and should create guidelines for confidentiality, and appropriate parameters. For example, one participant shared,

> She helped me so much as a student. I was an adult learner and I felt like a fish out of water at first. What is interesting is she decided to go back to school. She was from Iran and was a nurse in Iran but was not allowed to attain her education in Iran. She had to go back to school here in the states, so in going back to school, English was not her first language. I am sure that was difficult. I had to have help and English is my first language. That alone inspired me about her. If she could move forward with the nature of her challenges, I thought certainly I could, and she strongly encouraged me to further my education as well. I helped her with her communication in English and she taught me clinical skills to the point that it became

second nature. It turned out that we were in school together and again we were helping each other as women.

Mentors shared career options. Several respondents mentioned how the CTE mentor willingly shared a variety of career possibilities to consider in their respective allied health fields providing a clearer sense of direction thus the seed of pursuing higher education is ready to be planted. Several participants explained how their CTE mentors inspired them to reach for progressive educational and career objectives. The mentors led by example and provided the appropriate resources for mentees to attain desired ends. As an example, Participant 3 explained what was observed and what opportunities were made available by the mentor, saying,

> She was excellent in giving advice about many different careers that you could pursue within medicine, because she had gone through several different careers over her career, and she had also done a lot of research to help her students. For example, if students wanted to pursue nursing, then she would research all the information pertaining to nursing. If a student inquired about being a physician assistant, she would obtain and share all of the information for that career and so on. Even if a student wanted to pursue medical school, she had all the information for that. She never placed limitations on our dreams and objectives. She made you feel like you could do anything you wanted to if you were willing to put in the effort to accomplish it.

Similarly Participant 4 explained how she was directed toward higher learning, sharing,

> Right after high school, I took her advice and in June, I went in and enrolled and I was in Los Angeles city college. So, it didn't take a break, started right away. I took their program. It was an AA degree. So, I took the prerequisite and then graduated as a dental assistant. And then went ahead to earn a health science degree here in the Inland Empire once moving to this area. I could always hear her in my head encouraging me to keep going. She helped me to stay focused.

Enabling: Mentoring Experiences Influenced the Pursuit of Higher Education

CTE is an educational option providing diverse learners with academic, technical, and marketable skills, and the knowledge necessary to (1) pursue postsecondary training or higher education in the field, and (2) enter a career field while being prepared for ongoing learning and career advancement. Several participants mentioned how the faculty mentoring experience influenced their pursuit of higher education after completing their coursework and CTE certifications. This phase signifies a crucial time of development for the mentee, equivalent to that of the plant once the seedling has taken root. In this cycle, it is essential for the mentor and mentee to build a degree of trust and effectual communication producing a productive sustainable mentoring relationship. The nurturing and monitoring of the mentee's progress is fostered through forming and maintaining an open and affirmative learning environment, providing thoughtful and constructive feedback. This is when the mentor may take on a variety of roles, such as coach, confidant, friend, and guide in many situations. The theme that mentors showed them the connection between their desired career paths and the pursuit of higher

education was referenced eight times by seven respondents. Further, several participants mentioned their mentors were influential and supportive in their endeavors beyond the classroom and went so far as to recommend them for positions and provided them with written recommendations to endorse their career and educational endeavors; this theme was mentioned by five of the participants (Table 4).

Table 4

Enabling: Mentoring Experiences Influenced Pursuit of Higher Education

	n	Frequency
Mentees perceived mentors linked career paths to higher education	7	8
Mentors made college recommendations and wrote recommendation letters for mentees	5	5

Mentors linked career paths to higher education. Learning a trade in the CTE setting can be an option for students to consider if they have an idea about what fields they want pursue, and especially if they are not certain what to pursue. Higher education is not one size fits all and the reasons why individuals choose certain career paths is multifaceted. In today's job market, there is a need for credentialed employees in many allied health fields and a CTE program is often a viable option and, in many cases, a steppingstone toward long-term career goals (Ratway & Moore, 2014).

Mentoring in the healthcare industry can foster growth and serve as a bridge to higher education. Although some allied health positions may be open to high school graduates, positions are more likely be filled by individuals with some post-secondary education. Healthcare support jobs such as medical assistant, nursing aides, home health aides, and emergency medical technicians can open the door to advanced positions that

require higher education. Participant 5 conveyed how the mentor urged her to seek higher education, sharing,

> When I took the class, it was more for the extra credits, curriculum credits. I had no clue I would be starting a career journey. I was 18, an adult. It was time. I think it came down to trying to figure out what was going to be best for me. Even then, when I started working in the medical field after senior year, I was encouraged by him to go right to college. He advised me to go and take general education classes first and that I could figure out from there what to do next.

Similarly, Participant 10 described how her mentor influenced her to pursue higher education,

> I would have to say that doing the emergency medicine and working with the physician that I worked with, who really took the time to take me under his wings, actually helped me to understand that there is a very broad spectrum when it comes to mental health. He said, "You might want to look deeper into that area." I actually started going to school to earn my bachelor's in forensic psychology for that reason. He encouraged me to consider different things.

Mentors made college recommendations and wrote recommendation letters. A letter of recommendation from an esteemed source can encapsulate one's knowledge of a prospect's skill sets, accomplishments, goals, academic achievements, and character. A recommendation for a job or for a college application can carry much weight in the application process. Five participants described mentors who made strong

recommendations for them, helping them land jobs and get into college. For Participant 8, the recommendation opened a new career path, explaining,

> I had no desire to be an instructor whatsoever. But when it came time to hire an instructor, he was the person one needed to provide a recommendation. I was approached a few years after completing my coursework and working out in the field by an administrator from the college informing me that I had been recommended for a teaching position by my mentor.

Participant 2 also discussed how the mentor helped influence her decision to pursue higher education and provided a letter of recommendation needed as part of the college application process. Participant 2 shared,

> I expressed to her that I feel like I can do more than just having a certificate. She agreed, and right away helped me to weigh what options would be best for me and my family. She told me, "You are an example of pushing through against all odds." Then she was kind enough to write me a letter of recommendation for my bachelor's and then I went forward from there.

Coming to Closure: Faculty Mentoring Experiences Enhanced Learning

Mentoring is an important approach for new learners as they navigate their way through the requirements of a course of study and other potential obstacles. The faculty mentoring experiences of CTE students showed mentoring can build the self-confidence needed for mentees to feel assured in their ability to be successful in the program and a subsequent career. Mentors help mentees recognize how they are progressing in relation

to the course requirements while helping them to work toward their highest potential. The notion of mentoring increasing confidence was mentioned 11 times by eight participants and five participants communicated how mentoring enhanced their learning experience (Table 5).

Table 5

Coming to Closure: Faculty Mentoring Experiences Influenced Learning

	n	Frequency
Mentees reported enhanced confidence	8	11
Mentees reported enhanced learning	5	5

Mentees reported increased confidence. CTE learning has evolved over the years based on the changing landscape of the work environment and industry needs, and the acknowledgement of the workplace as a learning environment. It is beneficial to have an expert delivering coursework based on an authentic work experience. Mentoring in this learning environment can provide the level of confidence needed to enhance favorable student outcomes. Eight of 10 respondents detailed how their confidence was bolstered based on their mentoring experience. For example, Participant 10 shared,

> He in fact helped me find my first actual position as a medical assistant. I did not know that was even possible and I was not certain I was ready, after all I was a teenager. My mentor assured me that I was ready. He told me that he would not be risking his reputation on a student that was not ready and that I should be confident in my ability and go for it. So that is what I did. I was nervous at first though. His confidence in me pushed me forward for sure.

Participant 10 also went on to share these sentiments,

> He let me know you need to be confident because this is not a job where you can come in and pretend as if you know how to do everything and just do it. You have to understand what you are doing. You have to feel it; you must have a heart for this type of work. Basically, he told me you simply must be who you are. His words have really resonated with me. I always think of him in my decision-making in my work and in my life.

This sentiment was also highlighted by Participant 7 who described how her mentor helped her gain increased confidence in specific procedures. Participant 7 stated,

> There were times she let me practice on her because my confidence needed a little boost at first with handling needles on actual live subjects. I believe that her allowing me to use her as a pin cushion was above and beyond the call of duty. That meant so much to me.

Mentees reported enhanced learning. Mentoring in allied health disciplines in the CTE classroom can serve as a constructive tool to provide learners with the professional and emotional support they need to achieve the goal of attaining sustainable skills and higher education. By providing useful information, direction, and encouragement, mentors can play a vital role in nurturing student college aspirations, helping them prepare for their short- and long-term endeavors. Mentorship can foster confidence and help students transition to further education or the labor force. Participant 8 expressed the ways being mentored enriched the learning experience, sharing,

> The hands on, the theory, as well as the relationship that was developed made it all worth it. I can confidently say my experience was enhanced in

> a way to where maybe most of the clinical direction was taught by someone that I knew cared. It is just nice to know, very comforting.

Similarly, Participant 7 commented,

> Being mentored most definitely enhanced my learning experience; she made it enjoyable. I mean, we had to go to class every day, I think every weekday for almost a year. The course was more intense than I thought though, and she had high expectations. She made it doable but by no means easy. I knew that I had to be prepared for class, but I was always looking forward to what was coming up next.

Summary

Mentoring experiences can be transformative for the CTE learner. Well-qualified educators are essential to delivering high-quality and effective learning. Collaborative efforts between the educational system, institutions, and industry leaders is imperative to foster growth and opportunities to diverse learners in the CTE setting. Mentorship is not necessarily a concept innate in all who enter the CTE workforce. This environment has the potential to provide effective mentoring that includes the ability and willingness to (1) value the mentee as a person, (2) develop mutual trust and respect, (3) maintain confidentiality, and (4) actively listen both to what is being said and how it is being said.

This chapter presented the findings from interviews conducted with 10 CTE students who went on to higher education. Chapter V presents a summary of the key findings, conclusions, implications for action, recommendations for future research, and concluding remarks.

CHAPTER V: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this phenomenological study was to identify and describe the career technical education (CTE) mentoring experiences of adult learners who completed an allied health certification and subsequently went on to pursue higher education, such as a bachelor's degree. The theoretical framework guiding the study was Zachary's four phase mentoring model, which identifies how relationships move through four phases similar to the seasons of the growth of a plant: (1) preparing (tilling the soil before planting), (2) negotiating (planting the seed), (3) enabling (nurturing growth), and (4) coming to closure (bringing in the harvest). The central research question guiding the study was: What were the CTE mentoring experiences of adult learners who completed an allied health certification and subsequently went on to pursue higher education, such as a bachelor's degree?

The population for this study consisted of former CTE learners in the state of California. The study was conducted in California due to the vast number and diversity of CTE institutions in the state. In 2017-18, it was estimated 772,350 students were enrolled in CTE programs across the state (CDE, 2018). The study sample consisted of 10 former allied health CTE learners who progressed to higher education. Data were collected via in-depth interviews.

Major Findings

Once data were collected, the researcher transcribed, analyzed, and coded the data into themes. Based on the data collected during the interviews, four major findings emerged.

Major Finding 1. Mentoring relationships were forged based on individual needs and circumstances

Mentoring as part of the learning process varied for each learner in the CTE setting. The CTE faculty mentors offered the appropriate support necessary for assessing skills and helping mentors decide on an academic and career path by evaluating the individual mentee's interests, capabilities, strengths, and weaknesses. This major finding was supported by the data showing faculty mentoring experiences included helping students understand the coursework, increase content knowledge, and build skills. This theme, which was mentioned 12 times by eight of the participants, aligned with the preparing phase. The CTE mentors specializing in allied health disciplines provided training focused on critical subject matter. The role of the mentors was to instruct, evaluate, and challenge mentees academically and professionally based on their individual needs.

Major Finding 2. Mentors helped in many areas in and often outside the classroom environment

The CTE students often needed specific supports beyond the core curriculum. Mentors above all were champions for their students, helping diverse learners navigate through difficulties whenever necessary. The mentors fulfilled several roles over the duration of the relationship, which aligned with the negotiating phase. For example, six participants indicated nine times faculty mentoring experiences included broader life encouragement and guidance outside the classroom, and six participants noted mentors offered job and career advice. The faculty mentors cultivated a sense of community with

their students in and outside of the classroom, artfully directing authentic discussions regarding academic and personal challenges.

Major Finding 3. A positive mentoring relationship is inspirational and directs mentees in their educational and career endeavors

The participants described fundamental qualities that characterized their positive mentoring relationships. The mentoring relationship was enhanced by having CTE mentors who were knowledgeable and experienced, and were able to impart their knowledge and experience on the mentee. This theme, which was described by five of the participants, aligned with the enabling phase. Mentors possessed a deep passion for helping others attain their goals and demonstrated good interpersonal and communication skills. The mentors were fully committed to the mentoring process and had a genuine desire to get to know the mentee holistically. The mentors were concerned and responsive to the individual circumstances and needs of the mentees and fostered a sound and stable relationship with the mentee. They were educators who often acted as counselors and trusted confidants. This finding was supported by the data showing mentees described their mentors as professional, experts in their field, respectful, and motivational.

Major Finding 4. CTE mentoring relationships influenced learning, fostered confidence of the mentee, and enhanced the learning process

This finding was based on 11 references to increased confidence and five references to enhanced learning based on the mentoring experience. Mentoring relationships empowered students by influencing mentees to be forward-thinking, goal-oriented professionals. Mentors guided mentees and served as positive role models as they led by example and provided direction related to decisions regarding educational and

career pathways, thus cultivating self-assurance, autonomy, and enriching the learning process. The participants, trying to find their way in this world as a CTE student, needed direction on which avenue to choose and how to reach their end goal. Multiple participants expressed how they learned what not to do from a disengaged CTE faculty member before fortunately being partnered with the exemplary CTE mentor who helped change the trajectory of their lives through positive instruction, constructive support, and ongoing encouragement. This finding was supported by the data showing mentors increased mentee confidence and enhanced the learning process.

Unexpected Findings

Three unexpected findings emerged following the data collection process; these findings were unanticipated, and some were disappointing. Marginalized populations often feel discouraged because of the lack of support within their homes and communities. The first unexpected finding was that several participants expressed how they chose a CTE program because they felt it was likely their only option and they needed to gain a skill to attain quick employment due to the absence of family support and the need to survive. One respondent sadly described the mentor as the dad they never had.

The second unexpected findings was that multiple participants mentioned how they learned what not to do, describing unfortunate experiences that could have resulted in them failing or quitting all together. For example, one participant described an event in great detail where the faculty allowed racially offensive and other insensitive and inappropriate language to be used in the classroom environment. The participant described feeling invisible and hurt. Thankfully, despite this unfortunate incident, they

went on to be placed with an exemplary mentor and in turn, became a mentor for others. True mentorship is about more than making students feel cared about and supported.

The third unexpected finding revealed that many of the mentors shared similar characteristics, which allowed the mentees to have experiences that urged them to strive toward higher learning and career advancement. The characteristics of a mentor especially in the CTE classroom are multifaceted. In analyzing the interview responses of all participants, several prominent themes emerged unexpectantly. The importance of a mentor displaying professionalism was significant to the majority of respondents, which was referenced nine times by seven participants. It was also notable for the mentor to be knowledgeable and to be considered an expert in their field, which was described six times by five respondents. Mutual respect was paramount for five respondents. Four participants also described the need for a mentor who is motivational and who builds trusting relationships.

Each positive mentoring relationship was unique and took the student's goals, needs, and learning style into consideration. The core principles of directing and supporting the individual learner with professionalism, compassion, and empathy should apply across the board, but was not always the case for the study participants.

Conclusions

Based on the findings of this research in connection with the literature, the following conclusions were drawn that imply more profound insights into the impact of faculty mentoring in the CTE classroom environment.

Conclusion 1: CTE students who develop trusting mentoring relationships are better prepared to compete in higher education and their careers

Several study participants shared being mentored by an expert in their field of study helped them gain the confidence in their new skill sets. Though their experiences varied based on their personal development needs, participants agreed intentionally spending time within their community of practice helped build confidence through connections with those in their field. Based on the finding that mentoring built confidence, which aligned with the coming to closure phase, it was concluded students who develop trusting mentoring relationships will be better prepared to compete in higher education and their careers.

The research question sought to examine the authentic experiences of allied health CTE students who progressed to higher learning. Participants expressed how their mentoring experiences shaped the direction of their educational and career paths. This aligned with findings by Johnson (2016) that suggested faculty-student relationships can shape a student's academic and emotional development through mentoring. The mentoring relationship was essential to participant growth and development and was based on each learner's particular needs and goals. Thus, it was concluded former allied health CTE students were successful in their educational endeavors and careers based on the mentoring relationships were forged.

Conclusion 2: CTE students with appropriate opportunities and support overcome challenges and perform well

The literature acknowledged the role of faculty mentoring experiences in yielding favorable student outcomes, while simultaneously highlighting such practices were not consistently and deliberately applied in CTE institutions (Penner, 2001). Faculty connecting with students cultivates relationships focused on fostering a student's choice

of program and career development. Students with mentors are less likely to fall prey to poor personal or professional choices or moral breakdown because of the benefit of being in a sincere, caring relationship with a mentor. The mentors described by the participants led from the heart and led by example, actively listening and supporting their students throughout their CTE journey. These faculty mentor connections helped inspire and influence the students to overcome any perceived barriers and make better career and higher education choices. The CTE students earned higher grades, established attainable educational and career goals and aspirations, and increased their self-esteem when partnered with committed, supportive faculty mentor in the CTE environment. Students with mentors were able to achieve their goals and progressed to higher education. As such, it was concluded students with mentors had the support needed to overcome challenges and perform well in their studies and beyond.

Conclusion 3: Mentees are more successful in their CTE program when they are involved in a positive mentoring relationship

Sinek (2011) affirmed mentoring was positively correlated to successful student outcomes and asserted such efforts can lead to richer learning opportunities for the faculty and students in CTE programs. This was found in the current study as all 10 participants expressed their learning experience was enhanced based on encounters with their CTE faculty mentor. To ensure CTE students are equipped to navigate the emergent complexity of the 21st century, postsecondary education, and professional careers, mentors must center efforts on creating a classroom culture steeped in cultivating student talents and meeting their diverse needs.

Conclusion 4: CTE mentors who help students refine career objectives based on their own experiences and expertise produce positive educational outcomes

Based on the findings and the literature, investing in human capital is a worthy cause. It was concluded the dedication of faculty mentors with a high level of expertise, vast experience in the discipline, and genuine concern for novel learners is valuable. These mentors showed faculty mentoring is more than conveying information. CTE faculty mentors are not usually responsible for student schedules, class sequences, academic advancement, or similar administrative tasks. Rather, mentors in the CTE setting provide the means within an instructive setting for novel learners to explore and develop their individual aptitudes and abilities through structured and informal processes.

The CTE mentors described in this study helped the participants with their individual educational and career goals based on their experience and expertise by (1) examining career options related to the chosen field of study; (2) helping mentees reflect on competencies needed to achieve specific goals; (3) strategizing the swiftest path to educational and career success; (4) helping novel learners network with professionals in the career field, and (5) helping students set realistic educational and career goals and map out strategies to achieve these objectives.

Implications for Action

In light of this phenomenological study and the need for CTE faculty mentors in the allied health disciplines who can chart the course and guide learners from diverse backgrounds, the following implications for action are recommended. These recommendations are directed to policymakers, educators, and administrators in the CTE setting.

Implication for Action 1: CTE students need faculty mentors with vast experience and notable expertise in their career field

CTE institutions must develop programs that intentionally partner their faculty with diverse learners, creating opportunities for mentorships to develop. Specific and targeted faculty-student mentoring programs must become part of the landscape of the educational support systems at CTE institutions to yield more favorable ends for an array of learners.

Investments in mentoring programs may prove more beneficial to career placement than traditional career placement services used at many CTE institutions. Through mentoring, students can develop valuable relationships with CTE faculty and build professional networks while attaining marketable skills. Mentoring programs should be designed to aid diverse learners every step of the way; finding and establishing a connection with a mentor can mean the difference between success and failure for many students in the CTE setting.

Implication for Action 2: CTE coursework must evolve and be updated to correspond with contemporary industry needs

CTE institutions should consistently revise curriculum as new fields emerge in allied health and other trades to remain relevant to workforce demands. Several participants in this study expressed having exemplary mentoring experiences as novel CTE students in allied health disciplines prior to entering a degree program, which helped them understand and conceptualize theoretical ideas presented in formal learning. Based on the finding that having meaningful experiences with an engaged faculty mentor before seeking an advanced degree helped conceptualize what they learned, it was evident CTE

learners are better able to understand theories if they had a mentoring relationship with an experienced professional to help explain how theoretical concepts work in real-world applications. As a result, CTE programs should build in relevant components that allow students to apply their learning in real-world scenarios. It is recommended CTE program administrators include updated curriculum and mentoring components to the coursework so students can apply their learning.

To contribute to a healthy economy, it is crucial for educational opportunities, skills, and training to be in sync with the current climate and job market. Changing times require teaching and learning environments to be more rigorous, engaging, and relevant to ensure students are college and career ready. As technology evolves in the 21st century, CTE programs must adapt their instruction and develop new programs to meet emerging job needs.

Implication for Action 3: CTE institutions should create targeted programs that match mentors to students based on similarities and the needs of the learner

CTE students are often more inspired to learn by actively participating in their learning experience. This type of applied learning is a matter of initiating meaningful encounters from real-life experiences where learning occurs relative to the teaching environment (Lave & Wenger, 1991). For example, in allied health disciplines in the CTE setting, coursework, skills labs, and internship practices where students are fully engaged and physically immersed in actual work environments enhances the learning process. Traditional learning occurs from theoretical, out-of-context experiences such as lectures and assigned readings. In contrast, applied learning suggests learning takes place in real-world settings by forging relationships between people in the field and connecting

prior knowledge with authentic, informal, and often job-based learning. Under such circumstances, the learner's role evolves from being a beginner to a skillful worker as he or she becomes more actively connected in the social community where learning often is informal and based on mentor-mentee relationships.

Matching students with the right faculty mentor will likely increase the chances that the relationship will be beneficial and effectual. Matching should consider individual characteristics about the mentor and mentee to cultivate enduring relationships, looking at personality characteristics in addition to teaching and learning styles. This would fall into the preparing phase of Zachary's four-phase model and is a necessary step to ensure a successful mentoring relationship**.**

Implication for Action 4: Professional development should be available to CTE faculty to help them better mentor students

Training is an essential component to any mentoring program. Training concentrates on ensuring prospective mentors, mentees, and other key participants have basic information, appropriate mindsets, and necessary skill sets to develop meaningful and effective relationships. Orientation for faculty and students can help set expectations and lay the foundation for successful mentoring. Mentors need training on how to prepare for, establish, implement, and closeout the mentoring relationship, following Zachary's four phases. Training and support is fundamental to mentoring practices to form rewarding and successful connections, and to adjust to changing needs of the mentee and mentor. Thus, CTE institutions must establish professional development programs for faculty and provided ongoing learning opportunities to ensure successful mentoring occurs with all students.

Implication for Action 5: Lawmakers and CTE administrators should invest in the implementation of comprehensive faculty mentoring programs

The literature review and findings from this study documented the positive benefits of mentoring in CTE programs. The participants in this study valued their mentors, and many stayed in touch with their mentors even after they finished their CTE program. Their mentors helped them forge professional networks that were beneficial for obtaining employment and advancing in the field. Their mentors helped the participants be successful both in and outside of their CTE program. As such, lawmakers and CTE administrators much invest funds in such programs. Funds are needed to implementing mentoring programs, especially those that take the time to appropriately match students with family mentors and provide training to faculty members so they can become effective mentors. The personal, societal, and economic outcomes derived from the faculty mentoring relationships are well-worth the investment.

Recommendations for Future Research

Based on the limitation and findings of this study, the following are recommendations for further research to expand the understanding and knowledge of how faculty mentoring can impact student outcomes in in the CTE classroom setting:

- Extend the study to include other CTE fields such as plumbing, automotive repair, data security, and digital gaming design. This study focused on learners who completed allied health programs and underscored how faculty mentoring experiences influenced their educational and career objectives. Other fields were not addressed in this study.
- Expand the study to encompass more counties throughout California. This

research was limited to Riverside and San Bernardino counties so the findings may not apply to other areas of the state or country. Additional research should be conducted in other areas to determine of the findings are similar.

- Replicate this study at other types of institutions of learning. This study focused on mentoring in the CTE environment. Future research should examine mentoring in other settings to explore how institutional norms influence and shape the efficacy of mentoring development and practices.
- This study found a relationship between mentoring and self-confidence. Future research should further investigate mentoring in relation to motivation and self-efficacy.
- Future research should investigate the attributes of highly successful formal mentoring programs, such as programs focused on faculty mentoring practices, to identify and describe the potential positive attributes of CTE faculty mentors
- This study focused on CTE settings. Thus, this study should be replicated in public and private universities to surmise if the data reported in this study is shared in other aspects of post-secondary education mentoring.

Concluding Remarks and Reflections

From the onset of my dissertation journey, the predominant objective was to evolve into a transformational leader who generates sustainable change in my organizations. Early on, I was tasked to participate in a series of assessments that would provide self-examination and supply information as it relates to the perception of others. That was an enlightening experience that set the stage for this dissertation.

In the interest of comprehending how faculty mentoring affects CTE students, one must first identify and describe the internal and external needs of such students (i.e., socioeconomics, intellectual challenges). I believe everyone can learn while realizing individual learners are unique and many simply learn differently. I have been asked by many what I wished to accomplish by engaging in this research. I simply wanted to make a difference in as many lives as possible. I am certain, speaking from my own firsthand experiences, that being mentored and supported by a CTE faculty member can have lasting results.

More than three decades ago as a high school student, I was that young, fresh, clueless allied health CTE learner fortunate enough to be placed in a classroom under the care of an extraordinary dental assisting instructor. From the start, I knew I was in good hands. True and effective mentoring is the innate ability, or in some instances the learned ability, to empower others and usher them into greatness. The key is to realize the collective vision by serving those whom you lead and do so by example.

My sincerest hope is potential mentors from all allied health disciplines and other content areas boldly lead the process of integrating academic and career curriculum. Governing bodies across our nation, along with CTE institutions, must create the proper procedures and environments to provide ongoing professional development and training in support of curriculum integration by way of establishing comprehensive mentoring programs. Leaders must also view career-based learning and applied learning as a highly significant priority when considering outcomes for diverse student populations. As CTE programs by design are interest-based, students must have the opportunity to navigate choices between CTE pathways based on interest. CTE and career pathways must serve

as the cultural context for applied learning pursuits. Only through the establishment of such models will CTE institutions achieve the college and career readiness goals necessary to prepare students for the current and future workforce climate.

Educational attainment is necessary for a healthy economy and is related to the fortitude and abilities of the current and future workforce in education. Exemplary CTE faculty fostering constructive relationships with a variety of learners is a critical component to student success and may lead to the pursuit of higher education. Sustained student achievement is a long-term effort for all educational levels.

CTE faculty must be acutely aware of the responsibility they are undertaking. Mentoring is often critical to better serving students. It would be advantageous for educators and lawmakers to work in concert toward ensuring students of all ages are prepared for our ever-changing world and successful careers. Many experts in education agree mentoring is vital for faculty to meet the needs of today's students. Faculty mentoring is an essential element for the induction into many professions. As a consequence of effective faculty mentoring, novel learners develop a strong sense of resilience to the challenges and changes that occur in a given field and can plant the seed of higher learning and career advancement.

CTE faculty must empower themselves as facilitators and influencers for the learning journey, and in turn encourage and empower their students. This notion suggests faculty must be active listeners who are forward-thinking, pliable, and curious enough to be open to new methods of supporting diverse learners, and further, be willing to learn alongside their students.

The positive connection between faculty and their students leads to engaging and sustained work. When students sense a personal connection between themselves and the faculty supporting them, the classroom dynamic changes. Well-prepared and engaged CTE faculty in our ever evolving and uncertain times must possess the personal attributes and behaviors that enable strategic leaders in the unique setting of the CTE classroom the ability to drive results in a dynamic and unpredictable world. Ultimately, it is the not the obligation of the student to adapt to the facilitator's method of teaching; conversely, it is the faculty's responsibility to conform to the needs of the learners they are entrusted to serve. An experienced educator mentors novel learners, supporting their students effectively so they have a favorable experience.

My mentor was leading from the heart in her classroom each day and was likely unaware of such a concept. I do not believe she realized the impact she had on me and many of my peers. The well-equipped mentor will guide those who they are responsible for, directing them toward their destiny! Mine made me feel like there was nothing that I could not accomplish.

One of my favorite quotes from the prolific author Dr. Maya Angelou is, "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel." I would contend these are words to live by. Mentoring in the context of CTE in allied health is a service to the vast healthcare community. Students in the CTE setting often need more than the delivery of theoretical principles and the application of kinesthetic training in a skills lab that simulates the real-life experience of working with patients. Often students need to be inspired to pursue their hopes and dreams against all odds.

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APPENDICES

APPENDIX A: SYNTHESIS MATRIX

Source	History of Education in U.S	Traditional Learning Systems	CTE Programs	The Need for CTE	Teaching Through Mentoring	Faculty-Student Relationships
Paun & Van Loo,2011	X	X		X		
Ratway & Moore, 2014		X		X		
Cortese,2003			X	X	X	
Gough,2010	X	X				
Oates, Flores, & Weishaw, 2008			X	X		
Gough, 2010			X	X		
Carnevale, 2017	X	X		X	X	X
Banks, 1994			X	X	X	X
Myers, 2007			X	X	X	X
Strong, 2002					X	X
Holland, Lewis, Douglas, Scott, & Garrison-Wade, 2008					X	X
Lemov, 2010	X	X			X	X
Lazerson, Grubb, 1974	X	X		X		
U.S. Dept. of ED, 2001	X	X				
Goodman-Scott, 2013	X	X		X		
Gewetz, 2018			X	X		
Zhao, Frank, 2003	X	X		X		
Bronfenbrenner,1977		X	X	X		
ACTE, n.d.		X	X	X		
Maxwell, 2013		X	X	X		
Campbell-Wilson, 2011		X		X		
Gray, 2002	X	X	X	X		
Bishop, 2004				X		
Bonilla, 2019		X	X			
Kolko, 2013				X		
Moore, 2018	X			X		
lao.ca.gov, 2009	X	X		X		
Hansen & Leuty,2012	X	X	X	X		
Gordon, 2014	X	X		X		
Feiman-Nemser, 2003					X	X
Bowers, Napolitano, Arbeit, Chase, Glickman, Lerner, & Lerner, 2016					X	X

Brown, Sample, Waits, Britt, McKee, Sullivan, & Warren, 2005				X	X	X
Anderson, Ackerman-Anderson ,2010					X	X
Kerna-Jamerson, 2012					X	X
Penner, 2001					X	X
Rosenberg & Heimberg, 2009		X			X	X
Rowley, 1999					X	X
Walpole, McDonough, Bauer, Gibson, Kanyi, & Toliver, 2005		X	X	X		
Rojewski, Asunda, Kim, 2008	X	X	X	X		
Dortch, 2014			X	X		
Jepsen, Troske, & Coomes, 2014			X	X		
Vaughn & Fletcher, 2012			X	X		
Camp,2011			X	X	X	
Payne & Huffman,2005					X	X
Bratter & Gorman, 2011					X	X
Martin and Smith, 2011					X	X
Brewer, 2011		X	X		X	X
Keller,1948	X	X		X		
Stead, 2005				X	X	X
Lemov, 2005	X	X			X	X
Straus, Johnson, Marquez, & Feldman, 2009					X	X
Lang, 2016	X	X		X		
Patton,2015		X			X	X
Salkind, 2011		X			X	X

APPENDIX B – INTERVIEW PROTOCOL

Interview Protocol

Interview Date:

Interviewee Pseudonym:

Introduction

I am Joneane Davis and I am a doctoral candidate at Brandman University studying in the field of Organizational Leadership. I am currently conducting my dissertation research on the topic of faculty mentoring experiences of career and technical education (CTE) students who went on to pursue higher education. I am interested in learning about the pathways of individuals like yourself who have advanced to higher education.

I would like to thank you for agreeing to take part in this interview and for sharing your insights, as I am confident that what you impart will contribute to the development of CTE faculty and how they support and serve the diverse population of leaners in the CTE classroom. I plan to conduct 15 interviews with individuals like yourself. The information you share, along with other participants, will hopefully provide a clear view of this phenomena through a distinctive lens.

Interview Questions

Q1. Can you identify a CTE faculty member who mentored you?

Q2. Who are they? What is their role at the school?

Q3. This study investigates the faculty mentoring experiences of former CTE students who went on to pursue higher education. I would like to gain a deeper understanding of how the mentoring happened. Can you walk me through an example of a mentoring experience? (Ex. Where did you meet? When did you meet? How did topics come up?)

Q3. What types of issues did your mentor help you with?

Q 4. Did any of the matters that came up during your mentoring experiences shape the direction you chose to move in for your career path?

Q5. Did your experience with your mentor as a CTE student have any influence on your decision to pursue higher education?

Q6. In your opinion, what is the ideal mentoring relationship between student and CTE faculty member?

Q7. How did mentorship from a CTE faculty member enhance or diminish the learning environment and process?

Q8. How frequently did you meet with your mentor? Do you still keep in contact with your mentor? Feel free to elaborate.

APPENDIX C – INFORMED CONSENT FORM

INFORMATION ABOUT: The faculty mentoring experiences of Career and Technical Education (CTE) students who went on to pursue higher education. Direction: A Phenomenological Study on the faculty mentoring experiences of CTE students who went on to pursue higher education.

RESPONSIBLE INVESTIGATOR: Joneane Davis, MA

PURPOSE OF STUDY: The purpose of this phenomenological study was to identify and describe faculty mentoring experiences of former career technical education (CTE) students who went on to pursue higher education.

By participating in this study, I agree to participate in an individual interview. The interview will last approximately 45 – 60 minutes and will be conducted in person or via a technology tool, like Zoom, if social distancing requirements are preferred or are in place. Completion of the interview will take place between June 2020 through July 2020.

I understand that:

There are minimal risks associated with participating in this research. I understand that the Investigator will protect my confidentiality by keeping the identifying codes and research materials in a locked file drawer that is available only to the researcher.

I understand that the interview will be audio recorded. The recordings will be available only to the researcher and the professional transcriptionist. The audio recordings will be used to capture the interview dialogue and to ensure the accuracy of the information collected during the interview. All information will be identifier-redacted, and my confidentiality will be maintained. Upon completion of the study all recordings will be destroyed. All other data and consents will be securely stored for three years after completion of data collection and confidentially shredded or fully deleted.

The possible benefit of this study to me is that my input may help add to the research regarding the formal and informal leadership development of mid-level administrators in Private Non-Profit higher education. I understand that I will not be compensated for my participation.

If you have any questions or concerns about the research, please feel free to contact Joneane Davis at [redacted] or by phone at [redacted]; or Dr. Carlos Guzman (Dissertation Chair) at [redacted].

My participation in this research study is voluntary. I may decide to not participate in the study and I can withdraw at any time. I can also decide not to answer particular questions during the interview if I so choose. I understand that I may refuse to participate or may withdraw from this study at any time without any negative consequences. Also, the Investigator may stop the study at any time.

No information that identifies me will be released without my separate consent and that all identifiable information will be protected to the limits allowed by law. If the study design or the use of the data is to be changed, I will be so informed and my consent re-obtained. I understand that if I have any questions, comments, or concerns about the study or the informed consent process, I may write or call the Office of the Vice Chancellor of Academic Affairs, Brandman University, at 16355 Laguna Canyon Road, Irvine, CA 92618, (949) 341-7641.

I acknowledge that I have received a copy of this form and the "Research Participant's Bill of Rights." I have read the above and understand it and hereby consent to the procedure set forth.

Signature of Participant or Responsible Party

Signature of Principal Investigator

Date

APPENDIX D – INFORMATIONAL LETTER

Dear (Study Participant):

My name is Joneane Davis and I am a doctoral candidate at Brandman University in the area of Organizational Leadership. I am also on staff at Baldy View Regional Occupational Program (BVROP) where I support the Registered Dental Assisting (RDA) program as well as all Health Science pathways. I have formerly served as RDA Program Director at multiple Career and Technical Education (CTE) institutions, I typically oversee all aspects of RDA programs, including staff management, student support, curriculum development, state dental board compliance and the like. My research interest includes faculty mentoring experiences. More explicitly I would like to better understand the faculty mentoring experiences of former CTE students who pursued higher education following their CTE coursework.

I am asking your assistance in the study by participating in an interview, which will take between 45-60 minutes and will be set up at a time that is convenient for you. If you agree to participate in an interview, please be assured that it will be completely confidential. No names will be attached to any notes or records from the interview. All information will remain in locked files accessible only to the researchers. No other persons will have access to the interview information. You will be free to stop the interview/discussion and withdraw from the study at any time. Further, you may be assured that the researchers is not affiliated in any way with your institution.

If you have any questions please do not hesitate to contact me at [redacted]

Sincerely,

Joneane Davis

APPENDIX E – RESSEARCH PARTICIPANT'S BILL OF RIGHTS

BRANDMAN UNIVERSITY INSTITUTIONAL REVIEW BOARD

Any person who is requested to consent to participate as a subject in an experiment, or who is requested to consent on behalf of another, has the following rights:

1. To be told what the study is attempting to discover.

2. To be told what will happen in the study and whether any of the procedures, drugs or devices are different from what would be used in standard practice.

3. To be told about the risks, side effects or discomforts of the things that may happen to him/her.

4. To be told if he/she can expect any benefit from participating and, if so, what the benefits might be.

5. To be told what other choices he/she has and how they may be better or worse than being in the study.

6. To be allowed to ask any questions concerning the study both before agreeing to be involved and during the course of the study.

7. To be told what sort of medical treatment is available if any complications arise.

8. To refuse to participate at all before or after the study is started without any adverse effects.

9. To receive a copy of the signed and dated consent form.

10. To be free of pressures when considering whether he/she wishes to agree to be in the study.

If at any time you have questions regarding a research study, you may contact the Brandman University Institutional Review Board, which is concerned with the protection of volunteers in research projects. The Brandman University Institutional Review Board may be contacted either by telephoning the Office of Academic Affairs at (949) 341-9937 or by writing to the Vice Chancellor of Academic Affairs, Brandman University, 16355 Laguna Canyon Road, Irvine, CA, 92618.