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**Prestige vs Practicality:
Transition of Dual Enrollment Secondary Students
to Post-Secondary Options-A Case Study**

By Robin H. Dakers Lynch

Ed.S. in Higher Education Leadership, September 2019, National Louis University

A Dissertation Submitted to

The Faculty of
The National College of Education
National Louis University
In partial fulfillment of the requirements
For the degree of Doctor of Education

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Dissertation directed by:
Brian F. Hamluk
Associate Professor of Higher Education, National Louis University

**Prestige vs Practicality:
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Submitted in partial fulfillment
of the requirements of
Doctor of Education
in the National College of Education
National Louis University

Robin H. Dakers
Higher Education Leadership

Approved:



Dr. Brian Hamluk Chair, Capstone Committee



Dr. Nathaniel Cradit, Program Director



Dr. James Lawson, Capstone Committee



Dr. Felecia Boyd, Capstone Committee

09/10/2021
Date Approved



Dr. Nathaniel Cradit Capstone Committee



Robert Muller

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Abstract

This qualitative research study investigated the perceptions of support during the college choice process of former CTE dual-enrollment students at one technical college campus. In addition, it examined the types of support participants received as they progressed through the three-stage college choice process (predisposition, search, and choice). Interviews were conducted with eight former CTE dual-enrollment students from a technical college campus. Each participant completed a demographic survey and was asked 15 interview questions that coincide with the three stages of the college choice process. Finally, the data was analyzed and coded to develop a thematic findings structure.

The study resulted in three overarching conclusions. First, involvement in CTE dual-enrollment gave the participants the avenue to connect personal interests to career and college. Second, the level and type of support differed through each stage of the college choice process. Parents, family, and friends were the prominent supporters during the predisposition stage. During the search stage, relationships with guidance counselors, teachers, and institutional staff supported all participants. During the choice stage, most participants reviewed factors regarding the college and received support from institutional staff, faculty, and students, which influenced their decision. Lastly, all participants stated that the relationships and support received while enrolled in post-secondary institutions motivated persistence in advancing degrees. Faced with financial challenges, students set a goal to complete their degrees by matriculating to the articulating state college. Participants attributed their motivation to those individuals who gave them the confidence to believe in themselves and improve their lives.

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I dedicate this project to my grandmother, who aspired to do great things in education, but never got the opportunity. Nana, this is for you. I am my ancestors' dream. I love you!!

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Chapter 1: Introduction

The college experiences include academic rigor, social growth, civic engagement, cultural enlightenment, and community service commitment. The experiences are enhanced when they are connected to career preparation through internships and earned industry credentials. However, that was not the case for most young adults. Many were leaving college in debt and without a degree.

Research showed the importance of dual enrollment for college success. McAnaney and Zansler (2019) stated that dual enrollment students were more likely to complete their degree program and earn their degree sooner than other students. Zinth (2014) reported that CTE dual enrollment students were more likely to obtain a high school diploma, enrolled in a bachelor's degree program, enrolled in college full time, and possessed industry credentials for workforce readiness. In another study, Grubb, Scott, and Good (2017) reported that community college dual enrollment students were 9% less likely to take remediation, 26% more likely to graduate within two years, and 28% more likely to graduate within three years.

Britton, Chelliah, Symns, and Campbell (2019) found that their non-dually enrollment participants had a 7% - point increase in college enrollment and an 8.6% - point increase in the likelihood of enrollment in a four-year college. At the same time, the dually-enrolled participants had a 20% - points the possibility of enrolling in college.

This research of technical college dual enrollment students correlated with an earlier report that reviewed the advantages of dual enrollment in career and technical education. Both pieces dealt with advancing students to enter and complete college. This study's primary objective was to understand why the college dual enrollment students chose a two-year college or a four-year college outside of their articulated agreement with the local state college. The

secondary objective was what efforts from the articulating college could increase CTE dual enrollment students' enrollment. The qualitative design related to the study's aim because of students' involvement and empathetic understanding (Glesne, 2006) and post-secondary options.

This institutional study will glimpse into the importance of dual enrollment related to college persistence and career readiness. This study addressed and provided a review of the internal contextual factors that may support why students want to attend a four-year higher-learning institution. Also, this report provides a discussion into internal factors within the university that influence institutional decision-making. Actions relevant to the topic of dual enrollment students and their admittance and persistence at the four-year institution are addressed in the report. This study also described the external contextual factors involved in the operations and decision-making of a four-year university. In addition, this report discussed the external partnerships that influence decision-making regarding dual enrollment students at the four-year university. Lastly, this report looked into the human connections on a college campus and its importance for student persistence. Specifically, considering human factors within Career Services and its relevance to dual enrollment students matriculate to the four-year university.

University of Central Florida-Internal Context

History of University of Central Florida (UCF)

UCF began out of a need to support the Central Florida growing technological community in 1963. Sheinkopf (1976) gave two reasons for starting the school and described the infancy stages the school went through in its first twelve years of existence. The two reasons for establishing a state school in Central Florida were as a response to forecasters predicting phenomenal growth in college enrollments during the 1960s and 1970s. Secondly, because of electronic and engineering firms locating in the region. There was a tremendous demand for

educational facilities to support the Martin Company and Kennedy Space Center. These industries needed an educational institution to support their scientific and technical employees in pursuing advanced studies. Other local institutions in the region, such as Rollins College and Orlando Junior College, did not offer advanced studies in these scientific fields. Therefore, officials selected Florida Technological University (FTU) to meet the growing community's needs (Sheinkopf, 1976).

The history of UCF directly correlated with the history of post-secondary institutions in the United States, as supported by Cohen & Kisker (2010), who stated that the system expanded during the mass higher education era of 1945 to 1975. Such operations included enrollment, finances, and institutions that brought new campuses, new types of students, and new curricula.

Specifically, after the Cold War, technological innovation was dependent on scientific expertise. For UCF and other technology-driven institutions of that era, substantial capital investment in laboratories put the universities in the position of being in a seller's market. The US government provided significant capital investments for colleges and universities. As such, UCF began focusing on meeting the technology needs of their community and continues today through its mission, vision, and values.

Mission, Vision (Creed), Values, and Strategic Plan

The mission of UCF is "to offer high-quality undergraduate and graduate education, student development, and continuing education. To conduct research and creative activities; and provide services that enhance the metropolitan region's intellectual, cultural, environmental, and economic development. To address national and international issues in key areas, establish UCF as a major presence, and contribute to the global community (UCF, n.d. para 1.)."

Curran (2016) stated that traditionally, faculty members work together to educate students to produce well-rounded citizens (p. 1). Through its mission and creed, UCF was on a mission to promote a culture and collaboration climate. The creed development incorporated a value system for the students, faculty, and staff to follow and unite. The creed has been integrated with many aspects of the university, including housing, student life, Student Government Association (SGA), student orientation, and the classroom. The creed words represent the guiding principles that direct students' and employees' actions through integrity, scholarship, community, creativity, and excellence (UCF, n.d. para 2). These values are reiterated with the President's message "...make the UCF Creed an integral part of your value system: practice personal honesty, cherish learning, respect the rights of every individual, enrich the human experience, and strive toward the highest standards of personal performance...UCF faculty members and staff members are here to help you to learn, to grow, and to excel...(UCF, n.d-a para 2)."

The 2016 strategic plan for UCF and its current operational factors such as admissions, financial aid, and student services support the mission, values, and strategies first began in 1963. Using the benefits of scale and excellence, UCF positioned itself to solve the challenges in education for today and the future through learning, discovery, and partnerships over the next twenty years to enhance the metropolitan Orlando area's development. The collective impact strategic plan spanned many operations across the university measured by 5-and 20-year objectives (UCF, n.d-b. para 4):

- Lead large metropolitan areas in percentage of bachelor's degree attainment in five years, reaching the top quartile nationally by 2035

- Double national and international recognition of faculty and student excellence by 2021, and quadruple recognition by 2035
- Double research awards in five years and become a top 50 research university by 2035
- Generate \$10 billion in economic, social, and cultural impact, growing to \$25 billion by 2035
- Attract \$100 million in new funding from sources other than students, families, and taxpayers, becoming 20 percent of total educational financing by 2035

UCF had a leadership and governance structure that exemplified Pierce's (2014)

collaboration position to support the plan. For example, Pierce (2014) stated the following:

The 1966 Statement on Governance of Colleges and Universities (from the American Association of University Professors (AAUP)) is the most explicit about shared governance, advocating that colleges and universities practice it in planning, communications, facilities, the budget, and hiring a new president. It explains that even as ultimate authority and responsibility for an institution resides with the governing board, the board typically delegates operational responsibility to the President. At the same time, the faculty has primary responsibility for academic programs and educational policy. The President's authority is delegated to him or her by both the board and the faculty. Boards and presidents would also view the faculty's role in most matters other than the curriculum and academic standards as advisory. (p. 13)

As such, UCF shared governance, seen as utilizing all stakeholders' values in their appropriate levels of expertise and input to promote an institution's decision-making leadership.

Leadership and Governance Structures

The governance of UCF was state-mandated by the Florida Constitution Board of Governors as an institution part of the State University System (SUS). The Board of Governors of the SUS established the powers and duties of the university board of trustees. The Board of Trustees' responsibility was to carry out the administration of UCF that was in tandem with the university's mission and purposes of the SUS (UCF, n.d-c para 1). The leadership team of UCF also consisted of its interim president, who is responsible for working with the Board of Trustees and his leadership team in promoting policy and planning. He also carried the responsibility of strategic communication, marketing, and administrative and fiscal operations that advanced the mission of UCF (UCF, n.d-d para 4).

UCF has a distinctive faculty component involved in shared governance, which is the UCF Faculty Senate. This university's legislative body serves as an advisory body to the president and the Board of Trustees. The UCF Faculty Senate is the voice of the faculty. It is the primary channel of communication with the university administrators (UCF, n.d-e para 1). The academic provost rounds out the leadership team of UCF. The Provost Office has the role of collaborating with educational leaders (vice presidents, vice provosts, and associate provosts), faculty, staff, students, and advisors (deans) of UCF's 13 colleges. In this role, the Provost Office and the Office of Academic Affairs work together to promote a unified vision of being a higher education model in teaching, research, innovation, student success, inclusion, and collaboration. This office also works with campus stakeholders to reach UCF's Collective Impact Strategic plan (UCF, n.d-f para 1 and 4), including academic and curricular decisions.

Academic and Curricular Decisions

Diamond (2002) stated that an academic program assessment aims to create a learning organization that focuses on ensuring that what we do and how we do it gets the same attention.

This statement is supported by Germaine, Barton, and Bustillos (2013), who stated program reviews mandate improving teaching and learning.

A program review or academic program assessment supported changes required in creating a learning organization that supports both the teacher and the learner for the better. As such, in their role in making academic and curricular decisions, the Office of Academic Affairs must understand their impact on educational programs at UCF.

The Academic Program Quality (APQ) represents a reporting unit to the Office of Academic Affairs. Their role is to conduct a wide range of academic quality assurance activities that enforce compliance with regulatory requirements and support academic programming's continuous quality enhancement. Such activities include faculty qualifications, academic program review, educational sites, state authorization compliance, and institutional accreditation (UCF, n.d-f para 1). This form of accountability for quality assurance is a testament to UCF being a quality college. Faculty work collaboratively and develop curriculum to improve teaching for the program (Suskie, 2015).

Recommendations for Future Growth and Sustainability

Vogelsang et al. (2013) stated that an organization's work is impeded by several heart-embedded assumptions due to our fear and resistance to change. One such belief is that organizations are lifeless, or they are mechanical beings. The second assumption is that outside influences and change will eventually occur because it is something we do. The paradox is that it has been communicated for years that humans are the change agent. This dynamic change slogan used in motivation workshops; is not believable. The assumption is someone or something on the outside will cause the change. The final assumption is that things fall apart. Vogelsang et al. (2013) stated, "Our culture has taught us the natural state of everything is to decline and die...

without me, the world does not work" (p. 242-243). Thus, having a God-like complex exists when it comes to Western culture.

Based on these assumptions, an organization's nature is to pattern its organization based on its history, human mindsets, and natural science. Thus, as participants in these organizations, humans must come to realize the truths, according to Vogelsang et al. (2015), that organizations are living dynamic systems. Change is an inherent capacity of living systems, and order is inherent in the universe. The processes that connect an organizational system include leadership, value-creating, supporting, and feedback. Together, they define the work and information flows that produce value for the customer and community (Vogelsang et al., 2015). Thus, others can analyze the organizational system of UCF for future growth and improvements based on the reflective feedback of a selected performance metrics of the organization's established goals.

One such recommendation for growth and sustainability is in the student loan default rate at UCF. According to the National Center for Education Statistics (NCES), from 2012 to 2014, the student default rate increased from 4.3% to 4.8% and 5.2%, respectively. The actual default numbers over the same time rose from 427 to 538 to 629, respectively. To continue, the total number of students in repayment has increased over the same time, from 9,919 to 11,096, to 11,966, respectively (UCF, n.d-g para 1). The increase in the number of students in repayment does not mirror the increase in enrollment over the same period. As an assumption, an increase in enrollment should reflect an increase in students' numbers in repayment.

Interestingly, the default rate percent does not reflect that proportion. Presuming that the underlying problem is, students are not making their minimum loan payments. As such, they may be defaulting on their promissory notes.

According to Fallon (2018), before concluding the student default rate problem, the University of Central Florida's leadership team should conduct a strength, weakness, opportunity, and threat (SWOT) analysis. Upon completing the SWOT analysis, the organization will have the chance to view all aspects of the problem and be equipped to decide how to address and accomplish eradicating the problem, utilizing all organization levels.

Finally, in tackling the default issue, the University of Central Florida will need to identify its performance level needs. Stanleigh (n.d.) discussed four strategies that the university could implement to measure its organizational performance. First, the university should determine the strategic measurement right down to the department level and simplify the performance measures for the organization's critical business processes for only the essentials. Next, measure the right thing so that administrators can create the desired results or outcomes list of significant organizational performance measures. Lastly, eliminating silo thinking by ensuring data and information flow across the organization and reducing competition for resources are removed due to prioritizing initiatives based on the organization's strategic direction and planning (Stanleigh, n.d.).

Seidman & McCauley (2011) stated, "...developing sustained transformational leadership as a core competency is becoming a high priority." To continue, educational institutions can transform lives for the better. For example, upon reviewing the student default rate, the University of Central Florida has an opportunity to support students in making sound financial decisions and provide assistance with career service planning. In doing so, the school will decrease its default rate. Thus, equipping students to be fiscally fit. The number of students with post-graduation job opportunities will increase by making a few impactful policy changes regarding financial aid.

Areas of Concern and Success

Quality measures within the College Navigator provide general public information of any higher education institutes' status. As such, families may utilize the information to decide which school meets their specific needs. In reviewing UCF data, two areas of concern include student debt ratio and student diversity (NCES, n.d.).

Concerning the quality metric of student-debt-ratio, Braga & Baum (2018) states that students borrow money to attend college. Citing Dunlop, Valez & Woo (2017), 70% of students graduating from a four-year college in 2012 had some loan debt, including graduates of UCF. Data from the NCES report states the average student loan amount ranging from \$5,292 to \$12,692 (UCF, n.d.-g para 4). Also, UCF representatives say that 44% of their students graduate without educational debt. However, the national student debt is 34% of students graduating from college (UCF, n.d.-h para 3), accounting for 56% of UCF students who graduate with varying amounts of debt. As such, UCF must develop measures to address supporting students with decreasing their debt loads.

In reviewing the quality metric of student diversity, La Noue (n.d.) states, "the major problem facing the diversity movement in higher education is the limited supply of well-prepared African-American and Hispanic undergraduate and graduate students. The reverse is true for Asian-American and international students, and they are often ignored or penalized in race-conscious diversity plans despite the different perspectives they could bring to a campus" (p. 12). The NCES report for UCF regarding the 2017 undergraduate enrollment by race represented 49% White, 26% Hispanic, 11% Black, 4% Asian, 4% two or more races, and 2% Non-resident alien (UCF, n.d.-i). These data show that UCF's staff must work on inclusion and diversity across the board; to attract and increase less represented populations.

UCF uses quality measures to review areas of success for UCF, which include student retention/completion rates and student graduation rates. Regarding student retention rates, the NCES report for first-year students entering in fall 2016 and returning in fall 2017 was 90% for full-time students at UCF. Concerning student completion rates, the NCES report for bachelor's degree-seeking students had a 67.2% six-year completion rate for UCF (UCF, n.d.-j para 7).

A new success story for UCF is its achievement of being named one of the most innovative universities three years in a row since 2015 (Cole, 2018). Some factors that led to this nomination include innovative approaches to reaching more students at lower costs, innovations in learning, and innovations in locations.

Reaching more students at a lower cost was achieved through the schools' DirectConnect to UCF project. Over the years, approximately 46,000 students have earned bachelor's degrees as transfer students from one of the six state colleges with which UCF has articulation agreements. Many of these students are from underrepresented groups and are the first in their families to achieve this success. Each state college has a UCF advisor on staff to assist transfer students with the application process (Cole, 2018).

Innovations in learning at UCF have brought about digital and adaptive opportunities for all students and faculty. Approximately 80% of students take a combination of online or blended learning through their curriculum and have the advantage of completing their degree earlier. Added convenience for students is adaptive technology, which allows them to work at their own pace in selected courses. To support faculty with digital and adaptive learning, UCF provides 80 hours of professional development. This professional development includes an instructional designer for those who desire to build online courses; and 35 hours of training for those who want to teach existing online courses (Cole, 2018).

Innovations regarding locations are evident with UCF providing students with the opportunity to live, work, and learn in three different Central Florida areas. UCF Lake Nona Medical Center and the UCF Lake Nona Cancer Center have recently provided medical opportunities, research, and comprehensive medical training to the Central Florida community. The new UCF downtown campus, opened in 2019, will showcase a partnership with local businesses, UCF, and Valencia College. This campus will serve approximately 7,700 students for learning, living, and working in one close location to support local businesses through internships, work-study, and service-oriented opportunities (Cole, 2018).

Factors in Institutional Decision-Making Relevant to Research Questions

UCF conducts additional research, inquiry, and focused projects across multiple disciplines with such a large academic environment for growth and innovation. Such opportunities exist at both the undergraduate and graduate levels. Options include cybersecurity and privacy, energy conversion and propulsion, genomics and bioinformatics, prosthetic interfaces, renewable energy systems, and sustainable coastal systems (UCF, n.d.).

Despite the successes of UCF, other areas of further institutional development exist based on an identified need to prepare graduates for the workplace with connecting skills that transcend majors and degrees. UCF will be focusing on an institutional development project of integrated learning experiences across the curriculum. This Quality Enhancement Plan (QEP) focus will involve students, faculty, and administrators for a complete campus-wide buy-in (UCF, n.d. k para 1). As such, the QEP results from the university's accreditation recommendations; and will support the school's internal quality systems.

UCF has several robust internal quality systems in place to support a culture of quality. Notable successes in what the university is doing right and with excellence are encouraging

students and faculty with innovative initiatives that include an institutional creed utilized in all aspects of the university. Examples include the DirectConnect project to increase enrollment for low-represented groups and multiple campuses across Central Florida to partner with industry and the local state college. Additionally, a technology-driven curriculum to meet students and take them beyond their expectations in the classroom, where instructors equip them for a global society (UCF, n.d-1 para 1).

In my research, the process of reviewing dual enrollment students and their decision to attend a two-year or four-year institution is enhanced with analysis of the Tech Express project with Valencia College and the DirectConnect project at UCF. Tech Express is a consortium partnership between two Central Florida technical colleges and Valencia College that support technical college students' transition to Valencia College. The Tech Express's purpose is to afford students that complete selected technical programs the opportunity to earn college credits (Valencia College, n.d). Further research on this topic will uncover the answer to decreasing student debt by having students complete their degrees quicker and supporting students with post-graduation employment to earn career certificates and credentials before graduating from UCF.

One internal quality system is the UCF Connect Strategic Plan developed through the Office of Academic Affairs to support my research. UCF Connect was established in 2017 to showcase the university and the community's projects, activities, and influences. The leadership of UCF Connect developed a strategic planning effort to reflect and review the current practices and offer recommendations to improve, enhance, or redefine the division's mission. The focus areas developed through this reflective effort included DirectConnect to UCF, professional workforce development, partnerships, academic initiatives, and UCF online. The strategic

planning committee worked together to develop recommendations and strategies for long-term growth opportunities (UCF, n.d-m p. 4). Five focus areas were broadened to build on the capacity of UCF Connect and promote UCF as a unique, innovative, and partnership-driven unit within the university (UCF, n.d-m p. 6-7):

- Increase and Promote Student Access and Opportunities
- Strengthen and Build New Partnerships and Community Engagements
- Develop Opportunities to Make Global Impacts
- Create Pathways for Adult and Life-Long Learning
- Establish a Portfolio of Consultancies and Innovative Services

In a review of these expanded focus areas, three fields are of significant relevance to my research regarding former CTE dual enrollment students who may attend UCF:

1. Increase and Promote Student Access and Opportunities
2. Strengthen and Build New Partnerships and Community Engagements
3. Create Pathways for Adult and Life-Long Learning

The researcher used the strategies and metrics within each focus area to measure UCF Connect's success and growth. Further research will determine how the university could support dual enrollment students. They are recruited, retained, graduate, and seek employment as UCF students.

University of Central Florida-External Context

Overview of the Four-Year University

Institutions in the United States have gone through many changes in the past hundred years. Concerning the number of institutions, during the years of 1870-1945, there were approximately 1,768 institutions of higher learning (Cohen & Kisker, 2010). This number had

grown to 4,276 institutions in 2005. Concerning the number of students enrolled during that same period of 1870-1945, approximately 1,677,000 students enrolled in colleges/universities. This number had grown to 17,487,000 in 2005 (Cohen & Kisker, 2010).

In addition to the changes in higher education, the types of institutions were coming of age (Cohen & Kisker, 2010). During 1870-1944, such institutional types included specialized colleges, junior colleges, and colleges based on student interests, ability, and ethnicity. Such institutions included historically black private four-year colleges and Women's colleges both came into existence. During this same timeframe, the introduction of universities into higher education began to take root.

The comprehensive university included graduate degrees, research, scholarship, and public service. With research being the focus of universities, these 4-year institutions became the base for practical careers and research-based graduate education (Cohen & Kisker, 2010).

The four-year university modeled its resident facilities for first-year students after European input. It espoused the graduate study and research curriculum from German universities (Cohen & Kisker, 2010).

A four-year university's fundamental characteristics are to educate and prepare our citizens for service to their community. It is also considered a primary gateway to upward mobility regarding economics, Eckel and King (2004). Colleges were once described as a tremendous four-year experience, with three-credit-hour courses. Students would have a major or two. It is also independent research among a community of scholars and faculty governance conducting the university's business (Ray, 2014). Thus, college education or higher education is a place of growth and evolution for all who attend.

Despite the excellent opportunity for personal and professional growth, the four-year university faces many challenges in the twentieth century. As the US economy changes, problems for the universities have surfaced. Such challenges include global competition in education and economics, funding sources, changing demographics of the US population, and academic leadership surrounding policy changes (Zumeta, Breneman, Callan, & Finney, 2015).

Global competition is impacting higher education due to the vast expansion of knowledge. Thus, higher education is critically needed to continue to bring about innovative ideas. Ideas that exhibit new products and processes to move the economy in the right direction will produce more college graduates (Zumeta et al., 2015). With the challenge of declining federal and state funding looming over four-year universities, lawmakers must position themselves to increase state funding and have robust state policies on tuition. At the same time, university administrators should review efficiencies in current facilities and improve partnerships with businesses for better institution's financial support (Zumeta et al., 2015).

With the challenge of the rapid transformation of demographics in the US and the college attainment gap of underrepresented populations, the US's university system must education all its students. Higher education leaders must improve the growing populations' educational success rates, specifically, Hispanics and African Americans. As a result, the country will position itself in a better economic light for the future (Zumeta et al., 2015).

The challenge of competitive academic research funding at the state level is driving budget away from teaching-focused colleges and universities. The federal government could decrease this competition by reviewing its universities' allocation policies for research and development. In addition, leadership teams at the state level should focus on supporting their

current research universities and increasing college participation and completion rates of all students (Zumeta et al., 2015).

In reviewing higher education's purpose, trends, and challenges, colleges and universities are still an admiral choice for many students. Leaders across the country must address the challenges stated above (Zumeta et al., 2015) regardless of the institutions' distinction of a public, private, not-for-profit, or for-profit four-year college, including the University of Central Florida.

Financing and Budgetary

Current federal financial aid policies target benefits toward families of lesser means. In support of financial aid, many states have now gotten into the business of financial assistance through state grants and other opportunity packages. Also, colleges and universities have become the most extensive grant aid providers by giving institutional gifts to selected students. Finally, private entities of various sorts have expanded their financial aid offerings. (Archibald & Feldman, 2011). Other components of financial aid include student loans. Many US students borrow money to help finance their higher education (Braga & Baum, 2018). Citing Dunlop Velez and Woo (2017), almost 70 percent of all students graduating from four-year colleges in 2012 had student loan debt. Americans owed \$1.38 trillion in student loan debt at the end of 2017, increasing from \$0.55 trillion a decade earlier.

In response to combating the danger of mounting student debt, many public institutions have joined their private counterparts in soliciting financial support from alumni, foundations, parents, businesses, and industry (Barr & McClellan, 2010). Billion-dollar campaigns are the norm in higher education to support operational needs and state-mandated policies that the state does not fund. Examples of state-mandated policies include safety and security, student and

employee privacy, research regulations, discrimination, and audit requirements. Other concerns within public and private institutions are attendance, technology cost, competition for faculty and staff, increased competition for students, and the rising cost of goods and services. Consequently, fundraising has become a significant function in many institutions (Barr & McClellan, 2010).

According to one section of the UCF Strategic Plan below, the institution has developed the following goals related to fundraising and philanthropic endeavors in funding diversification, and alumni engagement (UCF, n.d-o):

Thematic Team 5: Leading Innovation in Higher Education

- Build the UCF Foundation endowment to \$175 million-Funding Diversification
- Increase annual alumni donors from approximately 15,000 to 30,000-Alumni engagement
- Increase alumni engagement from about 8,000 to 16,000-Alumni engagement

The strategy to support funding diversification efforts includes leveraging the university's resources and alumni and donor base to encourage growth in the endowment. The projected short-term outcomes may result in the development of fiscal year operating plans and gift planning strategies. Additional results are a series of educational opportunities regarding endowment and recommendations for updated investment strategies and fees. (UCF, n.d-o).

The projected mid-range outcomes may increase the number of new planned gift intentions and raise campus-wide awareness of the importance and impact of an endowment. Other mid-range effects are updated endowment investment strategies and fees and an increased number of new endowed gifts. The final mid-range outcome that may result is a rise in the number of advantages to existing endowments. Another result is an accurate and up-to-date report for tracking the pipeline; and an increase in the number of new endowed professorships and chairs (UCF, n.d-o).

The projected five-year impact may result in at least \$175 million in endowment and at least 84 philanthropically endowed chairs and professorships for the UCF community (UCF, n.d-o). The first strategy to support alumni engagement is to create a philanthropy culture among UCF alumni by emphasizing the significance and thrust of yearly alumni involvement. Projected short-term outcomes may result in the development of fiscal year operational plans for alumni giving developed. Other results may include a series of educational opportunities offered to increase their giving and initial strategies for collaboration among campus-wide partners. Regarding the projected mid-range outcomes, the result may be a development of acquisition and reporting of at least 3,000 additional alumni donors per year, increased student giving, and increased campus-wide awareness of the importance and impact of alumni giving. Lastly, the projected five-year implications may result in at least 30,000 alumni with reportable annual giving to UCF (UCF, n.d-o).

The second strategy to support alumni engagement is to coordinate the university's collaborative outreach attempts so that alumni feel compelled to enlist and perform in suitable means. Projected short-term outcomes may result in developing a fiscal year operating plan for alumni engagement and new ideas for alumni engagement opportunities. Other short-term effects include developing initial strategies for collaboration among campus-wide partners; and a series of educational opportunities offered regarding engagement. Projected mid-range outcomes may result in the acquisition and reporting at least 1,600 additional engaged alumni per year and increased collaboration among campus-wide partners. Other projected mid-range products may raise campus-wide awareness of alumni engagement's importance and impact and accurate and up-to-date reports created for tracking campus-wide engagement. Lastly, the projected five-year

implications may result in at least 16,000 alumni with reportable annual concentration with UCF, having a tremendous impact for years to come (UCF, n.d-o).

Political/Governmental/Legal Factors

Political and governmental factors are involved in higher education today. The US constitution sanction states to be responsible for higher education (Zumeta et al., 2015). The role of the state government is to finance and oversee the public colleges and universities within their state. The states also provide funding to students attending private colleges and universities, both profit and nonprofit institutions. As a result, state budgets are at a deficit in attempting to fund higher education; and at the same time, other significant services such as K-12 education, Medicaid, and corrections (p. 99-100)

The most important federal government input in higher education came with the 1862 Morrill Act-the Land Grant Act to supply federal land to support higher education (Zumeta et al., 2015). Post-World War II years, the government-supported equal opportunity for soldiers, minorities, and low-income individuals who met the federal grant programs' requirements. In 1992, federal student loans became available to middle-and-higher income families; and the tide of loans over grants became a part of the American culture (Zumeta et al., 2015).

Legal factors concerning higher education are a topic of great interest. Families have entrusted colleges and universities with their greatest treasure, their young adults. As such, families are concerned about their safety and well-being, in addition to an exceptional learning experience. Factors such as students' and parents' high expectations have provided an inviting atmosphere for legalistic and litigious concerns (Kaplin & Lee, 2007). As such, campuses are vulnerable to disputes regarding affirmative action and government agency compliance litigation. For example, student cases against the institution can range from disputes-cheating,

plagiarism, injury, safety, and athletic events. Another example is that parents may bring a legal suit against an institution for their young adult's injury or death. Also, faculty members may bring a legal claim against their institution for disputes regarding pay, tenure, office space, or sex discrimination (Kaplin & Lee, 2007).

One of the most critical positions on the campus of the college or university is the Registrar. The individual in this role must be aware of maintaining student records' integrity and their role as one of the institutions' primary legal protectors (Hossler & Bontrager, 2015). Collaborating alongside the Board of Trustees and the university's legal counsel team, the Registrar supports the student experience and keeps legal matters at bay (p. 403).

Concerning legal factors that impact decision-making at UCF, an interview with a college administrator sheds light on this topic. At the University of Central Florida, Dr. Angela White-Jones is a professor and director of the Masters in Research Administration program. She manages budgets, evaluates personnel (adjunct staff and other instructors), designs curriculum, and participates in the department advisory board. Regarding legal issues, A. White-Jones (personal communication, July 15, 2018), "I do not have any legal issues currently or in my previous role. We have courses that talk about the legal framework of our industry. However, we face no legal issues other than the standard provisions such as confidentiality of our students' personal information (including grades) and any other personal conduct and needs such as health issues or accessibility issues." (personal communication, July 15, 2018)

Competition with Comparable HEI/Enrollment Trends

Many reasons may exist why students select one institution over another to include price, location, program offering, flexibility, size, scholarship opportunities, and family tradition (Hossler and Bontrager, 2015). Two comparable schools located within fifty miles of UCF,

where Central Florida high school seniors may attend, Full Sail University and Bethune Cookman University, all offer unique competitive benchmarks against the University of Central Florida regarding degree completion rates and cultural relevancy.

At Full Sail University, students are in a real-world environment, involved in community-engaging activities, and interact with industry partners to showcase their learning (Full Sail University, n.d.). Thus, the accelerated curriculum benchmark to complete a bachelor's degree in half the time is why it is in direct competition with UCF. Students at UCF tend to complete their bachelor's degrees in four to five years. In contrast, Full Sail University students complete their bachelor's degree in two to three years.

Bethune Cookman University has a long tradition of supporting and educating students of African American descent. Today, the schools' demographics are 81% African American and Hispanic/Latino students (Bethune Cookman University, n.d.). Thus, the benchmark of cultural relevance and academic support of students of color is in direct competition with UCF. Where students of color identify with other students of color and may have a sense of belonging in attending a historically black college and university (Hossler & Bontrager, 2015)

Despite local competition with other institutions of higher learning, UCF has seen tremendous growth. In describing the enrollment trends at UCF, the Integrated Postsecondary Education Data System (IPEDS) has provided some interesting data. The total student enrollment in fall 2006 was 46,646. In fall 2017, it had grown to 66,059, which is tremendous growth for a fifty-three-year-old university. Specifically, fall 2017 encompassed undergraduate totals of 56,853, graduate totals of 9,206 (UCF, n.d-q).

Institutional Marketing

Families and students have many colleges and universities to select to attend within the United States and abroad. Through this selection process, families and those who support students may not be sure which post-secondary educational development aspect is of the most significant concern. Factors such as intellectual development, social development, personal development, and vocational development (Grier, 2005). What drives a student to give that final selection to the school of their choice? For higher education institutions, identifying what a student population is seeking in exchange for the student satisfaction in what the institution has delivered is pivotal in marketing research (Hossler & Bontrager, 2015). Along with strategic financial management, planning, and human resources, schools must integrate marketing into the fabric of the institutional organizational chart (p. 104).

From its humble beginnings in 1963 to today, the University of Central Florida's growth as a premier research institution is a testament to its marketing for enrollment, from 1,948 students in 1968 to 68,571 enrolled students in fall of 2018 (UCF, n.d-q-para 5). With a marketing department comprised of special teams in operations, communications, creative, social, editorial, and content strategy, UCF online, web development, and Information Technology (IT), this department will continue to be an integral component of the UCF strategic enrollment management team (UCF, n.d-r para 1).

The UCF Strategic Plan (UCF, n.d.) has a charge of leading the metropolitan Florida areas in bachelors' degree attainment, reaching the top quartile nationally by 2035. As accomplished through their team approach:

Thematic Team 1: Increasing Student Access, Success, and Prominence

- Lead Florida metropolitan areas and achieve top-five ranking among Orlando Economic Partnership (OEP) peer regions in the percentage of the population with a bachelor's degree or higher
- Enroll students who reflect family income and demographic distribution of the region
- Achieve 75% six-year graduation rate for transfer students
- Achieve average GPA of 4.0 and SAT of 1870 for incoming fall FTIC, achieve top 25 rankings among all colleges and universities and top 10 rankings among public universities for the number of National Merit Scholars, and enroll 30 National Hispanic Scholars

The strategies to support institutional marketing and student enrollment are developing a comprehensive approach with public schools and DirectConnect to UCF partners in Orlando metropolitan area and developing a comprehensive approach with OEP and employers in Orlando metro area. This partnership is to increase degree attainment in fields aligned with current and future regional growth needs. Additional strategies for student enrollment are establishing baseline income and demographic data for the First-Time In College (FTIC) and transfer populations; and identifying and addressing access and success gaps for FTIC and transfer students by various demographics socioeconomic characteristics (UCF, n.d-p).

Also, enrollment strategies are to create and unify activities that support UCF's future designation as a Hispanic serving institution; and advance the Transfer Alliance's development to institutionalize Foundations of Excellence findings and priorities. Lastly, the final strategies to support institutional marketing and enrollment are to promote and enhance a comprehensive process for identifying and recruiting academically talented students. Specific market programs of study, high-impact practices, and co-curricular learning experiences give talented students a

competitive advantage for post-baccalaureate success (job market, graduate, and professional schools) (UCF, n.d-o).

With each strategy, the projected five-year impact may result in several achievements. Such achievements may include degree attainment of 30.5% of the metropolitan area, 1st in the state, and 8th in the region. Increase in the first-year FTIC retention to 92%, four-year graduation to 60, six-year graduation to 75%. Additional projected five-year impact achievements that may result are a six-year graduation rate of 75%; and the average GPA remaining at or above 4.0, the average SAT reaches 1875; and UCF ranked in the top 25 overall (UCF, n.d-o).

External Partnerships Related to Dual Enrollment

External partnerships provide a myriad of benefits without taxing a university with financial burdens. According to the 2016 UCF strategic plan, the institution has always collaborated with the Central Florida community. As a result, UCF serves to meet the educational demand, economic development, and community's social and cultural engagement (UCF, n.d-o).

One such partnership related to dual enrollment's research topic is the concept of articulation agreements and DirectConnect. From the student's perspective, an articulation agreement is a win-win for the student in preparing him to succeed, despite his seemingly academic shortfalls. The articulation agreement will allow the student to attend the local state college at half the 4-year college cost. According to the National Center for Education Statistics (NCES), Valencia College is \$2,474 annually. The cost to attend the University of Central Florida is \$6,378 annually. Thus, saving the students and their families the higher cost of attending includes holding on room and board at the 4-year institution, which is approximately \$10,000, according to NCES data. Reaching more students at a lower cost was achieved through

the schools' DirectConnect to UCF project (UCF, n.d-p). Over the years, approximately 46,000 students have earned bachelor's degrees as transfer students from one of the six state colleges in which UCF has articulation agreements. Many of these students are from underrepresented groups and are the first in their families to achieve this success (Cole, 2018).

Considerations of People

Student Affairs, Student Population, Co-curricular and Student Support

National Louis University (2017) stated that an institutions' infrastructure, operations, and technology utilization are integral in having a useful strategic enrollment model (slide 7). It integrates systems between departments such as the registrar, admissions, financial aid, student services, and marketing to assist the institution through the enrollment cycle (slide 5-6).

Hossler and Bontrager (2015) stated that student services support is the foundation of strategic enrollment management's operation. The departments of admissions, registration and financial aid are all integrated through the advancement of technology. These components must effectively work together to ensure a successful enrollment system is in place to drive an institution forward.

An example of this integration includes the admission department, registrar, faculty, and academic support department. Students have a better opportunity to succeed when the admission office communicates with the other departments to keep students enrolled and engaged over a specific period. During this time, all departments must communicate to transition from one year to the next successfully (National Louis University, 2017).

The Student Development and Services (SDES) office at UCF provides students, parents, staff, and faculty with vital information regarding UCF college life (UCF, n.d). For the diverse population of 68,571 students from 50 states and 146 countries and representing all minority

populations, the SDES has its hands full in meeting the student body's needs. UCF provides support for the students through eight functional groups within SDES:

- Community Support
- Student Rights and Responsibilities
- Housing and Residence Life
- Support Services
- Student Life
- Wellness
- Enrollment Services
- First-Year Transition
- Learning Support

The UCF website and its Pegasus Parent program provides multiple levels of support for parents. These resources include academic information, newsletters, calendars, family weekend, and so much more. Next, SDES supports faculty and staff through its Support All Staff Involvement (SASI) team. This resource provides professional and personal development training, workshops, and networking opportunities for all University Support and Personnel System (USPS) employees (UCF, n.d-s.). The SASI team also provides information guides, publications, and an internal staff portal site to communicate the university's shared information to its USPS staff members. Finally, the SDES office is an integral component of the UCF community, where all Knights are supported.

As the first in my family to attend a post-secondary institution, I was in awe at the challenge; but I was motivated by my grandmother to move forward. Higher education is essential to me because it is the conduit in which one has the potential to be all that one can be.

So many people have goals, dreams, and aspirations for success. Through education, one can fulfill their goals, make their dreams a reality, and achieve success through the halls of education and vocational training at the post-secondary level.

What is a college education? David Ray stated, "...a four-year experience, courses were three credit hours, students would have a major, maybe two, the campus was a place of independent research among a community of scholars, faculty governance conducted the business of the university..." (Ray, 2014). Thus, college education or higher education is a place of growth and evolution for all who attend. Now, what is the purpose of higher education? Eckle & King (2004) stated, "the purpose of higher education has become "a primary gateway to the middle-class, for all US citizens, including women, minorities, and immigrants" (p. iii).

In describing the enrollment trends at UCF, the Integrated Postsecondary Education Data System (IPEDS) has provided some interesting data. UCF officials identified the total student enrollment in fall 2006 as 46,646. In fall 2017, it had grown to 66,059 (NCES, 2018), which is tremendous growth for the 53-year-old university. The increase in enrollment is partially due to the DirectConnect program for dual enrollment students.

The Valencia to UCF DirectConnect program allows guaranteed admission to Valencia graduates. Valencia College houses DirectConnect Advisors on its campus. It provides students the ability to take UCF courses on the Valencia campus. This system allows for personal academic support and a smooth transition to UCF (Valencia College, n.d-a). The DirectConnect program began in 2006 and had seen 28,959 students earn their bachelor's degree from UCF (UCF, n.d-ff). The numbers from fall 2017 encompassed undergraduate totals of 56,853 and graduate totals of 9,206 (NCES, 2018). Regarding characteristics of the student body, the National Center for Education Statistics (NCES) shows for fall 2017, 70% of the undergraduate

students attended full-time, and 30% attended part-time. For graduate students, their numbers represented a 50% split for attending as full-time and part-time. Females represented 54% of the undergraduate students, versus 46% males. 82% of the students were under the age of 24, and 18% were over 24. 89% of the students were considered in-state residents, 8% were out-of-state, and 4% were from foreign countries, all of whom represented undergraduate enrollment. 70% of the incoming freshman live on campus while 30% commute (NCES, 2018).

With admission selectivity, the fall 2017 freshman enrollment profile included an enrollment number of 6,964. Approximately 50% of the students accept their offer to attend, with an average, SAT score of 1316, an average ACT score of 28.1, and an average weighted GPA of 4.06. For Burnett's Honors College, 509 students were accepted, with an average SAT score of 1450, an ACT score of 32.1, and an average weighted GPA of 4.43 (UCF, n.d-t). The sheer number of high-level applicants causes the open admission policy to allow each incoming class an enrollment bar to be set higher and higher due to the limited number of freshman slots.

Different factors exist for each population of students that have an impact on persistence and retention. However, the characteristics can be very similar for students of color-African American, Hispanic, Asian Pacific Islanders, American Indians, and alternative education students. For example, factors for African American students include a sense of belonging, hostile campus climate, family involvement, discrimination, and micro-aggressions associated with students leaving college. Factors for Hispanic students include campus climate, lack of Hispanic counterparts, lack of ethnic community, and sociocultural factors that impact Hispanic students' persistence. Factors for Asian/Pacific Islander students include academic under-preparedness first-generation status, language barriers, discrimination, cultural barriers, financial difficulties, and family obligations associated with students leaving college. Factors for the

American Indian or Alaskan native students leaving college may include family support, individual level of commitment, lack of finances, the experience of prejudice, and social isolation (Hossler and Bontrager, 2015). Finally, factors for alternative education students include lack of parental support, expulsion from traditional school settings, childhood trauma experiences, and financial difficulties (Hill-Jones, 2020).

Hossler & Bontrager (2015) stated that the U.S. postsecondary institutions have a 73% enrollment of nontraditional students (p. 335). For nontraditional students, factors impacting their persistence include delayed enrollment due to significant life transitions and inadequate finances. Additional factors may include lack of financial aid due to attending part-time, external commitments such as family and work, employment workload, and social isolation due to commuting.

One student provided several reasons for choosing UCF. Reasons include receiving a National Merit Finalist scholarship, excellent engineering program, university's size, availability of ample resources, small class sizes in the Honors College, Orlando's wonderful city, and beautiful weather (Feltner, 2017). This testament shows that UCF is willing to recruit the best and the brightest and support students in becoming successful as a part of the UCF family.

Co-curriculum activities on the college campus is an extension of learning for the postsecondary student. One such area involves students studying abroad through UCF Abroad, a Division of Teaching and Learning department. UCF Abroad supports students with learning experiences that build upon their major coursework and prepare them to succeed in the global community. Students have the opportunity to study in selected regions from around the world. Such areas include Europe, Africa, South America, Asia, Australia, Latin America, and Oceania. Students can choose short stays of less than 8-weeks, one semester, or a full year during their

time away. UCF Abroad's vision is to transform students' lives through a cultural exchange of knowledge and support all student populations outside the traditional classroom setting (UCF, n.d-u). The postsecondary institution must be willing to design a system at both the institutional and departmental levels, where student persistence for the underrepresented population is the objective. Utilizing the Hossler & Bontrager (2015) framework, the postsecondary institution can design such a system.

At the institutional level, the foundational leadership and organizational structures include supporting institutional leadership and intensity efforts, cultivating a favorable institutional climate for diversity, and fostering a culture of evidence (Hossler & Bontrager, 2015). Through this design, the college administrators can create a college-wide collaboration and organizational structure that facilitates an internal drive for diversity and evidence that supports the change. By reviewing data and utilizing evidence, the institution will be situated to make better changes regarding the school's climate, culture, and financial impact to serve all student populations' needs.

Specific structures identified at the departmental level support student persistence. For example, the financial aid department will develop structures to facilitate access to financial aid for all student populations. In addition, the student services department will establish a system of excellence and coordination of student support services. Such examples include admissions, registration, academic advising, student union, student health services, and student life to meet all student populations' academic and non-academic needs (Hossler & Bontrager, 2015). One such specific example of student services support is the student orientation program. Through this system, students can transition to college, build relationships with professors and the schools' departments, and understand succeeding and completing a degree at the institution (p. 356).

By reviewing research-based literature and analyzing school-wide culture and climate, school officials positioned the postsecondary institution to support all student populations by using institutional and departmental support systems (Hossler & Bontrager, 2015). The postsecondary institution can help all students with persistence and retention by including students, faculty, and staff members of color, intentional programming, and cultural spaces (McClain and Perry, 2017).

Within the SDES at UCF, the Learning Support functional group assists underrepresented, first-generation college students. Through seven federally funded grant programs, students at the precollegiate and collegiate levels receive academic support services, opportunities, and resources to enhance personal skills and academic excellence (UCF, n.d-s).

The Community Support functional group assists Deferred Action for Childhood Arrivals (DACA) and undocumented students through the diversity and inclusion initiatives. The Multicultural Student Center (MSC), a component of the Community Support functional group of SDES, assists students from various cultures, ethnicities, gender identity, abilities, and spirituality through the Multicultural Student Center. In addition, the Multicultural Academic and Support Services (MASS) assist students who are first-generation college students, male students, and foster care alumni succeed in their college experience (UCF, n.d-s).

Supporting underrepresented populations within the staff and faculty will help build relationships and trust between the administration and the teaching members. One goal of the UCF Strategic Plan is to strengthen the faculty and staff of UCF by focusing on underrepresented populations. Specifically, UCF is striving to retain 25% of its minority full-time administrative and professional new hires for five or more years. The strategy UCF will implement to achieve this goal includes developing an internal mentoring process to develop and retain

underrepresented postdoctoral scholars as a pipeline to earning faculty positions (UCF, n.d-v, p. 10). With this, UCF is looking to support all staff and faculty members, strengthening their academic influence on the student population.

Faculty-Support, Leadership, Roles, Tenure and Governance

The common denominator for all higher education institutions (HEI) is that schools provide education service. Investing in your workers will produce a positive outcome for your customers, the students. School officials should align the faculty development design with the schools' mission statement's goals and its long-standing processes and campus-wide structures (Diamond, 2002). When schools allocate their faculty and staff development, creativity, productivity, morale, and self-renewing energy will be high (p. 211).

The research university has a comprehensive approach to education (Hossler & Bontrager, 2015). Therefore, its professional development will be varied, from grant programs to formal training opportunities. Faculty at the research university will also have consultation opportunities to assist their personal growth (p. 216).

Suskie (2015) stated that due to the increase in adjunct faculty members' use, schools representatives need to improve their teaching quality. In providing support, supervision, appropriate expectations, and training, the adjunct member become a productive member of the institution (p. 85). Thus, requiring exercises for all adjunct faculty members to promote unity and cohesiveness on the college campus. In addition, the training will encourage adjuncts' understanding of their course key learning outcomes and standards; and how their course fits into the program or general education curriculum (Suskie, 2015). As a result, student learning will be the outcome.

Diamond (2002) stated that with the right combination of goals, support, and staff, institutions' faculty and instructional development programs could stimulate their institution (p. 219). As such, the professional development plan for faculty members must reflect the institution's same strategic goals.

The university focuses on preparing the faculty for instructional and personal development to improve student success (Diamond, 2002). This faculty development plan will have programs that reflect instructors' support. This should include faculty-led programs, stand-alone offices run by a designated faculty member, professionally staffed offices, department structures, and a collaborative-distributed network (Diamond, 2002). Each faculty development plan will include consultation with individual faculty, formal training opportunities, and less traditional training methods. Additional components could support innovation, grant programs, teaching evaluation, preparation programs for promotion and tenure decisions or post-tenure review, and advocacy for education and instructional issues (Diamond, 2002).

Acknowledging that the skills to be an active business CEO and a college leader are transferrable, colleges and universities should develop faculty members for leadership roles (Diamond, 2002). At UCF, officials promote the faculty leadership through programs initiated by the Faculty Excellence department. Such leadership opportunities include the Chairs and Directors Excellence Program (CDEP) and the Academic Leadership Academy (ALA).

The CDEP provides monthly support to program Chairs and Directors through meaningful conversations to discuss relevant campus-wide topics related to professional and personal concerns. The ALA assist interested faculty members in developing their leadership ability to prepare for future leadership roles in higher education. The year-long leadership academy provides participants with structured interactive discussions, seminars, networking

opportunities, mentorship, hands-on activities, coursework/assignments, and webinars. Through the ALA program, participants can expand and refine their leadership skills; and gain knowledge of the administrative aspects of higher education (UCF, n.d-w). Through both leadership programs, faculty members may enhance their academic freedom and aspirations to further their tenure status.

Constitutional governance models at higher education institutions take on the look of committees, councils, and governing boards to collaborate on the institution's strategic plans. When all stakeholders share in the power, authority, and decision-making responsibilities, an effective governance system is achieved (Suskie, 2015). As a result, schools will utilize their governance models to reflect the faculty's interests, needs, concerns, and beliefs in bettering the institution's welfare (Miller, Smith, & Nadler, 2016).

Contractual models of shared governance involve bettering the welfare of the institution through a partnership with multiple agencies. Miskel (1974) stated that a formal agreement between two parties, where services are bought and rendered, is considered a contract. Contracts may exist with the faculty members, state, other higher learning institutions, private industry, government, and other higher education institutions. For example, the faculty's contract models have designs for tenure or tenure-track professors' salaries, part-time or adjunct salaries, teaching schedule, sick leave, and vacation time. Secondly, the contracts for the state could involve state aid for students or facility improvements. Next, the contracts with other higher learning institutions could involve sharing resources to support student learning. Also, the contracts with the private industry and the government could include internships and part-time employees, such as having an ROTC program on campus, where the government will pay for the staff. Lastly, other organizations such as the Boys and Girls Club could have a contract to lease space on

campus that supports after-school activities. These examples of contract agreements allow institutions to maintain their identity and yet receive the benefits for their students and the school's fiscal accountability (Miskel, 1974). How do the contract models impact governance for higher education institutions' faculty members with the benefits to students and the institution?

The contract between faculty and administration is a negotiated contract with no appealing values to the higher education documents for the school itself (Burbules, 2013). At the end of the contract period, all things become null and void and up for renegotiation, collective bargaining, and not shared governance. Thus, with no value to the higher education documents, organized labor will harm the constitutional model of higher learning governance (Burbules, 2013).

Four elements of shared governance impacted by collective bargaining include the presumption of a conflict of interests between the parties. Secondly, campus senate committees not being involved with administrators on critical matters of the institution. Thirdly, collective bargaining no longer handles disputes between parties. Lastly, they allow compromising of an environment of mutual trust and respect (Burbules, 2013).

Before collective bargaining, each was a positive component of an effective, shared governance system. First, faculty and administrators are professionals in the shared governance model. Secondly, Senate committees and administrators are involved in constructive discussions around the university's essential matters, including academics, budget, salary, and working conditions. Next, the Senate committee resolves disputes or disagreements between departments and administrators due to their rights and responsibility of serving the institutions' documents' best interest. Lastly, shared governance promotes an environment of mutual respect and trust, as

members of the board and stakeholders promote to fulfill the institution's mission and vision (Burbles, 2013).

The American Association of University Professors (AAUP) position is that collective bargaining is a tool that works in conjunction with the institution to fulfill its shared governance objectives. So, to this point, the AAUP has included a collective bargaining indicator on its instrument tool for assessing an institutions' shared governance process (AAUP, n.d.).

Diamond (2002) stated that tenure systems are the focal point of many administrators' conversations due to increasing demands to reduce cost and improve quality in educational services (p. 276). This focal point is supported by Archibald and Feldman's (2011) statement that with the decline in the number of faculty on tenure-track, institutions are developing post-tenure reviews that are evidence laden; to prove the inefficiency of tenured faculty members. These statements support the idea that it is time for universities to rethink tenure.

Initially, tenure provided a means to protect faculty members' academic freedom, provide employment security, and a means to employ highly qualified people. However, tenure does not protect against a faculty member's dismissal for contractual or academic reasons (Diamond, 2002). Schools have begun implementing promotion and tenure policies that address stopping the tenure clock, citizenship and collegiality, interdisciplinary or collaborative work, a grandfather clause, and updated materials disseminated while the tenure review is in the process (Diamond, 2002).

The operational, academic freedom, and tenure on the UCF campus is through the backing of the UCF Faculty Senate resolution of 2018 (UCF, n.d-x); and supported through the Faculty Excellence department's resources. After an individuals' sixth year of continuous service and demonstrating exemplary teaching, research, and service to UCF, an individual may begin

applying for tenure. The Faculty Excellence department resources include the promotion and tenure criteria document, department-specific dossier contents, forms and letters, candidate training manual, and video tutorials. Candidates have access to both the promotion and tenure at a glance and the full schedule to prepare for the two-year-long process. In addition, UCF has provided a support system for those who elect to pursue advancements in their careers and expand their student success role (UCF, n.d-y).

Faculty members are the lifeblood of the UCF family. Their role is to lead students to their promising futures. Faculty types include adjunct, tenure or tenure earning, and full professors. The department of Faculty Excellence's mission is to support and strengthen faculty through recruitment, development, and retention of the best faculty. Officials offer such professional development program opportunities in three areas: peer communities, A la Carte, and development and vision, which support faculty in and out of the classroom (UCF, n.d-z).

Peer communities offer faculty members the value of connecting with like-minded colleagues in a supportive environment to collaborate on goal setting and problem-solving. A la Carte programming opportunity exists for those looking for flexibility in learning something new at their own pace. The Development and Vision aspect of professional development programming offer those who aim to provide input on future campus initiatives for the university (UCF, n.d-z). To this end, Faculty Excellence utilizes professional development and institutional policies to promote the growth of faculty members and aspiring governance leaders.

Campus Governance, Organizational Structures and Weak Links

In the past, institutional decision-making was an internal process focused on the academy itself and not a process completed by state regulatory offices. Things have changed with a new entrepreneurial model at the helm of the decision-making process. This model involves college

administrators, outside stakeholders, and competition among and within schools for students and resources as the primary criterion for determining investment and curricular priorities (Lightcap, 2014). This change in the landscape of governance noted by Pierce (2014), who stated "in the past several years, new economic and political pressures, along with the advent of new technologies, have led to conflicts on many campuses over who is responsible for the nature and pace of change generally and decisions about the academic matters in particular. On these campuses, contentiousness has often replaced collaboration" (p. xv).

The most dominant issues facing shared governance are the President's ability to know when to involve all stakeholders; and at what level. Having only tenured faculty members participating in any shared decision-making could be catastrophic for any real radical change on campus (Simplicio, 2006).

To support the President, one must understand the levels of power that exists with each role. We find that the various types of power in higher education begin with multiple functions. The power team includes the President, board of trustees, administration, and faculty. For the President, this individual has the final say in the decision-making process. The board of trustees' role is to ensure the enforcement of institutions' charter policies. For the administration, their part is to provide the institution with a mechanism to run smoothly on a day-by-day basis. Their role is to ensure that curriculum and teaching are valuable and productive with the faculty, where students learn. Other functions, such as students, parents, and community partners, also impact an institutions' decision-making process.

The stakeholder's role is to work collaboratively with all happy quad-President, board members, administration, and faculty, in moving an institution forward. All groups have equal rights based upon their expertise (Simplicio, 2006) within a given domain; to promote the

institution's success. UCF demonstrates its system of an organization through its shared governance with all stakeholders. As a result, every aspect of the schools' community, such as faculty, students, administrators, and community partners, all have a voice in the schools' quality of achievement. Shared governance in higher education is a critical component of academic management. Faculty senates' use is the primary mechanism for engaging faculty (Miller et al., 2016). UCF has a shared governance process for its faculty through its Faculty Senate, as discussed in the UCF Faculty Constitution (UCF, n.d.-aa).

The Faculty Senate functions include serving as the voice of the faculty; providing academic oversight regarding courses, programs, and policies; meeting with the Provost to discuss issues and make simple solutions; and pass resolutions to express a stance on issues or a call to action (UCF, n.d.-bb).

UCF has a shared governance process for its students through its Student Government Association (SGA) (UCF, n.d.-cc.). The Student Government is the official representative of the student body. Its functions include representing student issues and concerns at all levels of University decision-making. SGA makes recommendations to and through the Vice President of Student Development and Enrollment Services concerning University policies, regulations, and operating procedures that impact students; and serve as the student representation on councils, commissions, and boards which have student membership or representation (UCF, n.d-cc).

UCF has a shared governance process for its industry and community partners through its advancement committee within the board of trustees. In addition, UCF has a shared governance process for its administrators through its board meetings and administrative council for collaborative strategic planning, problem-solving, and decision-making (UCF, n.d-dd). Thus,

UCF has involved stakeholders in all decision-making processes and therefore developed a collaboration institution.

In utilizing evidence-informed decision-making, quality institutions possess a reflective focus in all areas of continuous improvement. Several suggestions for schools to promote a culture of betterment to include involving all stakeholders in decision making, incorporate college priorities into criteria review, offer financial incentives for extraordinary work, keep things simple and cost-effective, start at the end and work backward, and look for the most significant return on investment (Suskie, 2015).

UCF utilizes evidence in multiple ways that impact campus, students, faculty, and the community. For example, the Center for Distributed Learning office development of a data platform called the Executive Information System has been instrumental in managing a high-growth initiative on the campus of UCF (Dziuban, Moskal, & Cavanagh, 2012). The data retrieved from this system assist the university in many decisions; to include managing faculty development scheduling and credentials to teach online, track productivity data, program tracking for regional accreditation and state governing board reporting, and monitor student demographics (Dziuban et al., 2012).

Another example of utilizing data as evidence to make decisions is the Center for Distributed Learning Research Initiative for Teaching Effectiveness (RITE) department. The RITE department operates an intensive data program that analyzes student data such as student success, withdrawal, and end-of-course evaluations. The department uses analytics to identify trends, compare performance, and track data referring to distributed learning (Dziuban et al., 2012). National Louis University (2017) stated that a crisis in higher education is impacting academic leaders. These political, social, and financial challenges demand a change of

perspectives from higher education leaders (slide 2). Educational leaders must be willing to face these challenges and develop systems to move their institutions forward.

One internal pressure that is challenging higher education is student learning outcomes. One external force is the costs of higher education (Diamond, 2015). Without focusing on student learning, colleges and universities may jeopardize their accreditation due to recent pressure from regional higher education accreditation associations. In addition, without understanding the concern of federal and public appropriations and having a reign on the institutions' fiscal resources and accountability, institutions will find themselves in a financial crisis (Diamond, 2015).

Academic leaders could combat the internal threat of the lack of focus on student learning by developing an assessment tool to measure their knowledge (Diamond, 2015). Academic leaders must first know what students need to learn by utilizing the Essential Outcomes initiative and its LEAP goals and utilizing the Degree Qualifications Profile (DQP). These sources show the knowledge, skills, and competencies that students need today (Suskie, 2015).

Academic leaders could combat the external threat of higher education's rising cost by implementing such tasks as fundraising efforts, tuition increases, and cuts in non-academic areas (Diamond, 2015). Regarding state leadership, their attention should be on strategic allocation resources for higher education and the explicit use of fiscal policy to leverage improvement (Zumeta, Breneman, Callan, and Finney, 2015). The collaboration of key stakeholders with the state, local business leaders, and higher education leaders will be paramount in redesigning finance and accountability to support the public agenda (Zumeta et al., 2015).

Despite the successes of UCF, other areas of further institutional development exist based on the Collaborative on Academic Careers' result in Higher Education (COACHE) survey (UCF,

n.d-cc). The COACHE survey is administered every three years to faculty members to capture their opinion of the workplace experience. The Fall 2018 findings showed that UCF is strong in faculty leadership, senior leadership, and clear tenure policies and expectations. However, areas of improvement were seen in department collegiality and the nature of work, precisely, teaching. As a result of the survey findings, the Faculty Excellence department created a 2018 COACHE priority setting committee that met to develop four to six focus areas for the next three years. The timeline below shows the status of the committee's actions and their future tasks:

- Spring/Summer 2019-Create Action Plans
- Summer 2019-Communicate Findings and Plan
- Fall 2019-2020-Implement Action Plan
- Spring 2021-Reassess

UCF is on the cutting edge of staying abreast of meeting faculty needs and addressing ways to improve through its campus-wide collaborative efforts (UCF, n.d-cc).

Other Human Factors Related to Dual-Enrollment Students

Human factors within UCF that are relevant to dual-enrollment students include the SDES office and employment services. In addition, dual enrollment programs benefit students with early college credits (Karp & Hughes, 2008). This accumulation of credits allows students to attain a bachelor's degree in less time than students who do not participate in dual enrollment. Additionally, Career and Technical Education (CTE) dual enrollment is a workforce investment strategy for low-income and males (Zinth, 2014), as CTE students earn career credentials after their program.

In supporting dual-enrollment students on the campus of UCF, Career Services will play an integral role in ensuring those workforce strategies are supported and continued; as the

student(s) matriculates. UCF Career Services supports students with comprehensive and coordinated career development, experiential learning, and employer relations programs (UCF, n.d-dd). This department will be instrumental in building upon the students' career credentials for the dual-enrollment student before matriculating to UCF. Support will continue in career planning, connecting academics, acquiring work-related experience, and gain professional employment. Career Services is relevant to the success of the dual enrollment student on the campus of UCF.

Proposed Research Question and Discussion

Maxwell (2013) stated that the research questions' focus is on bringing attention to the study and providing guidance in conducting the survey. First, the research questions' relationship to the study's goals and conceptual framework will help the researcher remain focused throughout the research. Secondly, the research questions' link to the survey methods and validity will support how the investigation will be conducted (p. 75).

In refining my original research question, what is dual enrollment students' impact on a four-year college? Are we the answer to reducing the student loan debt ratio? I followed the guidelines suggested by Maxwell (2013) by comparing my research question to a concept map created on dual-enrollment students and their transition to a four-year university. I also followed the criteria where the research question's framing would point to the information and understanding of my goals; and develop the practical implications of what I learned (Maxwell, 2013).

My revised overarching research questions are: Why does a technical college dual-enrollment student decide whether to follow the articulating two-year college or a different institution? Furthermore, what are the perceptions of support of former CTE dual-enrollment

students on post-secondary exploration while attending technical college? The following research subquestions guided the study:

1. How do students perceive they are being supported during high school, for post-secondary exploration as CTE dual enrollment students?
2. How do students perceive they are being supported as CTE dual enrollment students who transition to the articulating two-year institution?
3. How do students perceive they are being supported as CTE dual enrollment students who transition to a non-articulating two-year institution?
4. How do students perceive they are being supported as CTE dual enrollment students who transition to a non-articulating four-year institution?

I formalized my goals to bring awareness to this distinct population of students. I propose for them to complete their post-secondary education in less time and smaller debt-ratios than their classmates.

These questions were derived from my personal and professional experience working as an educator in the K-12 public school setting. In my own experience, my two daughters left school with student loan debt, from \$10-\$20,000. In my professional experience, I have witnessed senior students pursue post-secondary education at a four-year college. Many returned home after one or two years of college to service-industry jobs. Some students required their six years of undergraduate school with multiple student loans. The silver lining of my professional experience has been witnessing students complete dually enrolled coursework at both the technical college and state college and earning career certificates. That allowed them to pursue other post-secondary credentials with minimal or no student debt.

I have learned that the University of Central Florida (UCF) is one of the fastest-growing higher learning institutions in the nation (UCF, n.d-gg. para. 2). One of how UCF has accomplished this feat is implementing its DirectConnect program. Students are guaranteed admission to UCF by earning their Associate degree from one of the local state colleges (UCF, n.d-hh. para 1). This program has given students an advantage of career-certificate programs dual-enrollment with the technical college and the state college, the opportunity to complete their bachelors' degree within two years. As a result, students entered the workforce sooner and were prepared to be paid higher due to earning a career certificate.

As a result of the investigation, staff and administrators will address the student-loan financial crisis at this institution first and then take this investigation to the nation. Some practical implications of this research will be for the university to address the students' success and how this aligns with their Quality Enhancement Plan (QEP) for workforce readiness. The administrative team may review the university's strategic plan to reflect new goals and implement further actions to address graduation rates, workforce readiness, and impact on student debt ratio. In reaching the revised research questions, I had to strip away the portion of the original item that looked at the university's impact instead of addressing the student outcomes of less time and less debt. This is because the initial questions were too broad and not actionable.

Upon completing this research, the question unanswered is how do we establish a culture of "less time and less debt" to stakeholders, administrators, students, and families? Even though this question may go unanswered, I choose to focus on this topic because it transcends the idea that all students must attend a four-year university, despite lacking career pathways. In addition, this topic also addresses an answer to student loan debt, which is the most grievous burden

bestowed upon our next generation of leaders. Thus, I am committed to shedding light on what I believe is the answer to the financial burden we have created in our education system.

Significance of the Study

Working with high school students is very rewarding. Seeing students go on to further their education to be productive citizens is the dream of many educators. One way to accomplish students' furthering their education is through dual enrollment. This method involves high school students participating in a co-partnership (Hossler & Bontrager, 2013) with a post-secondary institution. The paper addresses the significance of dual enrollment students selecting post-secondary opportunities that benefit them instead of making a decision that could negatively impact their lives. Highlighting several examples of supporting evidence for dual enrollment is included in this paper. The tension of assuming the high debt of attending college when dual enrollment students select prestigious institutions; is discussed in the study. The existence of gaps in knowledge regarding dual enrollment brought to light in this paper signifies further research. Included in the study is a discussion of the practical benefits of dual enrollment to higher education institutions. Lastly, identifying the specific audiences best served with the research findings' knowledge is discussed in this paper.

The topic of dual enrollment and the importance of selecting a post-secondary institution is crucial because the decision could cost them an arm and a leg. Schools today have to report their cohort default rates (CDR), impacting their enrollment (Hossler & Bontrager, 2015). For example, dual enrollment students may choose a high CDR school and end up with student loans. The compilation of student loans leads us to address the tension of excessive debt experienced by many college students.

In selecting an institution of higher learning, parents and students are looking for the best value. This value of attending college is seen as a unique economic investment (Suskie, 2015), leading to a better living standard. Unfortunately, dual-enrollment students may face the harsh reality of obtaining high debt if they seek to attend an out-of-state or prestigious university with a high price tag.

The gaps of knowledge regarding dual enrollment are the trend data regarding students and their transition to other post-secondary institutions. Researchers have just begun to study dual enrollment and its effectiveness for college success (Karp & Hughes, 2008). Prior studies on dual enrollment focused on the descriptions of programs, state policies needed to support those programs, and a workforce investment strategy (Zinth, 2014). This study will reveal students' selection of post-secondary opportunities and how this may impact current policies of tracking students in the future at institutions and support workforce readiness.

The benefits of dual enrollment for higher learning institutions are seen in the data of students enrolling and completing college. Studies show that dual enrollment provides students access to and achieves a college education (Karp & Hughes, 2008). Thus, four-year institutions with low enrollment and low completion rates may utilize this data to support researching and implementing an articulation agreement; to increase their statistics of students enrolling and graduating.

This study's findings will support K-12 school districts, college administrators, and workforce leaders in their quest to answer the question, "How do we position students for college and career success in the most practical manner?" Education leaders will now have a collective understanding of dual enrollment's impact on high school seniors' college selection to answer this question. Administrators can now alter decision-making structures (Cohen & Kisker, 2010)

and existing institutional mechanisms to promote change (p. 525). Finally, strengthening policies focused on post-secondary plans that include articulation agreements positions students for college and career success.

Conclusion

High school students and their parents have a multitude of post-secondary options for themselves. Many students, including CTE dual enrollment students, choose four-year universities such as the University of Central Florida as their first choice in the college selection. The University of Central Florida has been attracting staggering numbers of students for the past thirty years. Their human connection to students helps to support student retention and persistence. Their external partnerships also significantly impact enrollment of dual enrollment students; through its DirectConnect program. Within UCF, decision-making among the institution's internal factors shows dual enrollment students receive support through multiple departments, as with all students at the university.

With many students attending UCF, this research supports the schools' mission of decreasing families' financial burden. With CTE dual enrollment, students have the opportunity to utilize articulation agreements to earn college credits. As a result, these students will finish college sooner and with less debt. Thus, the overarching research question-why do dual enrollment students choose a two-year college or a four-year college? Is it possibly answered with the findings from this study? The study's findings will open the door to the crucial conversation of attracting more CTE dual enrollment students.

Chapter 2: Review of Literature

Introduction

This chapter provides an overview of the literature about dual enrollment. It also details the significant impact of dual enrollment on both institutions and the students they serve. Many Career and Technical Education (CTE) technical college secondary students enter their final high school year. Their families make plans for their students to be successful in life by looking at post-secondary options. Most families look at four-year college for their child to be successful. Who is defining success? The concern is that the main focus has been on the four-year college as the only way to a successful career. However, a four-year college is not the only way to succeed (Perna, 2018).

This review will investigate possible reasons why CTE dual enrollment students select four-year colleges over the two-year college, which has an articulation agreement. This study discussed various factors such as the technical college, dual enrollment, and articulation agreements. In addition, it discussed statistics of dual enrollment and students' impact of participating in dual enrollment that may be contributing to the problem or that might enlighten a cultural mind-shift to seeing other ways to the career destination.

Technical College

Role in Education

The purpose or mission of technical education is to prepare one with the technical knowledge and skills; aligned with academic standards needed to further their education in a current career or emerging profession. Kreysing (2001) stated private high schools in the second half of the century were the primary home of vocational education. However, vocational education played only a minor role in high schools until the 1960s. In the early 1990s, a reform

movement shifted the attention of vocational education in the United States. Due to the economic situation, society focused on vocational training and the connection between education and economic competitiveness. In addition, employers needed a skilled workforce for their restructuring processes. As such, the changing of vocational/technical education had begun.

Gary Moore (2015) stated a resurgence in career and technical education because going to a four-year college is expensive. The job market was soft, and students are often deep in loan debt when they finish college. On the contrary, Career and Technical Education students graduated with virtually no obligations and could find good-paying jobs. To sum it up, Career and Technical Education emerged over the last 100 years to something trendy and what society needed. To support this statement, Gary Moore quoted John Gardner with, “the society which scorns excellence in plumbing as a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy; neither its pipes or its theories will hold water” (2015, video file).

Kazis and Liebowitz (2002) reviewed a community college and technical college collaboration where welfare recipients received education and employment training. As a result of this training, participants attended college at a higher rate than the states’ population, with 60% earning GPAs that met or exceeded the campus average.

As such, technical colleges were unique in that they supported both secondary and post-secondary students; and they were able to support student development from the ages of 13 through 100. The technical college is seen as the stepping-stone to ones’ future goals, with a bridge to get to the 2-year state college and the 4-year public college.

Student Demographic

Mosser (2010) stated, there were 11 million CTE students in the U.S., including secondary, postsecondary, and adult levels, in 2011. At the secondary level, 90 percent of public high school graduates from the class of 2005 took at least one CTE course while in high school. In addition, about one in five 2005 graduates concentrated in CTE (21 percent), earning three or more high school credits. Regarding the postsecondary level, in 2004, a higher proportion of undergraduates majored in career fields (67 percent) than in academic areas at each level—certificate, associate degrees, and bachelor degrees. In addition, in 2004-2005, 37 percent of labor force members participated in work-related courses at the adult level.

Zacharakis, Wang, Patterson, & Andersen (2015) researched the demographics of Adult Basic Education and General Education diploma program (ABE/GED) students transition to the technical college. The research method included successful completers (who earned their GED and transitioned to a post-secondary institution) who attended Kansas schools from 2007 to 2012; 532 students were program completers. The findings showed that students' demographics were mostly young adults, predominately white, with slightly more females than males.

Prins & Kassab (2015) researched GED recipients and traditional students and their Pennsylvania Free Application for Federal Student Aid (FAFSA); to obtain demographic data regarding attending a post-secondary institution. The research method analyzed data from the 2010-2011 FAFSA applications, which totaled 610,925. The findings showed GED graduates were more likely to pursue an associate degree. Specifically, GED holders (40% rural, 33% urban) were more than twice as likely as non-GED students (19% rural, 15% urban) to pursue an occupational/technical associate degree. The data also showed that GED holders (21% rural, 24% urban) were more likely than non-GED students (9-10%) to submit the FAFSA to technical schools.

Programs

Mosser (2010) provided the 16 Career Clusters in the U.S. Department of Education model. Clusters included Agriculture, Food & Natural Resources, Architecture & Construction, Arts, Audio/Video & Communication, Business, Management & Administration, and Education & Training. Additional clusters included finance, Government & Public Administration, Health Science, Hospitality & Tourism, Human Services, Information Technology, Law, and Public Safety & Security. Lastly, the final clusters included Manufacturing, Marketing, Sales & Service, Science Technology, Engineering & Mathematics, Transportation, Distribution & Logistics. The most common programs available at the secondary level included Business, Healthcare, and Computer Science. At the postsecondary level, Business and Marketing; and Healthcare are the most common programs.

Chumbley (2015) researched a hybrid dual enrollment program model that has been successful with students and secondary and post-secondary institutions. Before to the 2010-2011 school year, New Mexico requires all secondary students to take a minimum of one dual enrollment or AP credit as a high school graduation requirement. The student must also earn at least a C in the course to receive the credit (Chumbley, 2015).

With so many students successfully earning dual credits, Eastern New Mexico University (ENMU) looked to extend this success. ENMU developed and tested an online/hybrid Career and Technical Education (CTE) dual enrollment program. The goals of the program for students are access, accountability, affordability, and success. They receive books, supplies, material, professional development, collaboration with university faculty, and a stipend for participating in the CTE teachers' program. The hybrid/in-class model six CTE courses include Introduction to Metal Fabrication, Rural Buildings Construction, Principles of Engines and Power Units,

Introduction of Animal Science, Dairy Science, and Introduction of Horticulture (Chumbley, 2015).

The findings of the testing model showed that student enrollment in the CTE dual credit hybrid increased significantly. For example, in 2010-2011, there were 347 students enrolled and 24 schools participating in the program, representing 29% of the state's program enrollment totals. By 2012-2013, the numbers had increased to 808 students enrolled and 25 schools participating, representing 30% of the state's program enrollment totals.

The most significant rise was during 2014-2015. More than 1400 students were enrolled, and 36 schools participated in the program, representing 43% of the state's program enrollment totals. Through this hybrid program, students may earn 18 credits to transfer to any university in the nation and utilize the credits for a degree or electives. The program has proven to meet goals for students and teachers alike. However, modifications were necessary to meet both the students and the community (Chumbley, 2015).

Dual Enrollment

Academic-Traditional College

Speroni (2011) conducted a quantitative study to investigate the participation level of high school students in Advanced Placement (AP) and Dual Enrollment (DE) courses. The study also looked at the impact this participation had on their likelihood of enrolling in college, registering in a four-year college, and obtaining a bachelor's degree. The study looked at whether success in these accelerated programs was due to the minority status. The study's focus was on academic dual enrollment courses related to college credits and AP participation only. The researchers utilized juniors and seniors student data from the Florida Department of Education; for cohort classes of 2000-2001 and 2001-2002, 229,828 students. The student data included

demographic information, English language proficiency, 8th and 10th-grade standardized test scores (FCAT), and high school and postsecondary degree attainment (Speroni, 2011).

Districts in Florida utilize AP and DE accelerated programs to promote students earning college credits while in high school. In 2001, 55 districts in Florida offered AP courses, while all 67 districts agreed with the local community college to offer DE courses (Speroni, 2001).

Although both programs support college credit attainment, there are some differences in each program. High school teachers teach AP courses utilizing a standard curriculum that equates to a college course on the high school campus. In contrast, college professors teach using a college syllabus located at the community college. Another difference is that AP courses have an assessment component to determine the awarding of college credits. In contrast, DE students receive college credit when they pass the DE course. DE programs have an articulation agreement with the school district and the local community college to award college credits. This study also revealed that 19% of Florida students participated in AP courses, and 13% enrolled in DE. Less than 6% of the study students were enrolled in AP and DE courses (Speroni, 2011).

The study's findings revealed that both AP and DE courses are strongly associated with college access and degree attainment. The study found DE students are more likely to enroll in college right after high school, yet AP students are more likely to attend a four-year college (Speroni, 2011).

Regrading degree attainment, researchers found no significant difference between AP and DE students, with AP having only a slight advantage. Regarding the effect of AP or DE on the minority student, the researchers found that AP and DE minority students are almost identical in attending college to non-minority students in the study. Interestingly, researchers found that non-minority AP students are twice as likely to participate in a four-year institution than minority AP

students. Thus, researchers suggest that AP courses alone do not close the achievement gap for minority students (Speroni, 2011).

Piontek, Kannapel, Flory, and Stewart (2016) conducted a study of the implementation practices of dual enrollment programs in six nonurban districts in Kentucky. In 2009, legislation passed Senate Bill 1 to support post-secondary education. This Bill emphasized that the Kentucky Department of Education and the Kentucky Council on Postsecondary Education develop a plan to reduce college remediation and increase postsecondary degree attainment. The expectation was to communicate the study's findings to the Kentucky Department of Education and the Kentucky Council on Postsecondary Education. This sharing of information supports developing college and career readiness strategies at the postsecondary level in Kentucky (Piontek, Kannapel, Flory, & Stewart, 2016).

To analyze the overarching research question of how are dual credits implemented? How do the districts differ in implementation, and how are they similar? The researchers reviewed the dual enrollment policies and practices in six nonurban districts in three regions of the state-west, central, and east. In the 2013-2014 school year, the dynamics of the districts involved in the study showed that the number of high schools in each district ranged from one to four, with total enrollment ranging from 300 to 4,000. The nonminority population went from 75 percent to 100 percent. The number of free and reduced lunch eligible students ranged from 50 to 90 percent.

Regarding college readiness factors, the average ACT composite score ranged from 17 to 20. The range of students meeting the reading and math proficiency scores was 25 percent to 60 percent. There was four-year adjusted cohort graduation that ranged from 85 percent to 95 percent. The share of graduates meeting the college and career readiness benchmark scores went from 50 percent to 70 percent. Lastly, the percentage of students attending college ranged from

20 percent to 60 percent. With such vast differences in dynamics and academics, the researchers felt the interview questions' responses would yield variable data (Piontek et al., 2016).

The researchers utilized phone interviews with seven stakeholder groups, district administrators, postsecondary institution administrators, high school administrators, and state education agency administrators. Other groups included collaborating organizations administrators involved in dual credit programs, course instructors from the postsecondary institution, and course instructors from the high school. Due to each group's diversity, a separate interview protocol was developed for each group by the research team (Piontek et al., 2016).

The study's findings focused on program configuration, student eligibility, high school and postsecondary partnerships, course offerings, course location, course instructors, student support, quality assurance, costs, and challenges. Such findings showed that all districts allow students to take singleton DE college-level courses, not specifically in a particular order or pacing. It demonstrated that geographic proximity to the postsecondary institutions positively supported program implementation. All districts would like to provide more course offerings due to students increasing interest in dual credit programs. In most districts, the DE participants are in grades 11 or 12. All districts offer dual credit programs at an excellent tuition discount to families. However, cost and funding support varies between the districts.

Some differences revealed that administration and management structures varied widely across the high schools, districts, and postsecondary institutions. Student support varies by program and course selection within each district—some DE programs in selected districts allowed for an integrated curriculum that leads to specific credentials. At the same time, other districts had programs with less coherent agendas. The researchers included the following challenges, quality assurance is limited and varied across the six districts. More dual credit

instructors are needed to meet the demands. Students' academic preparedness limits program expansion. Students' costs remain a barrier for families; limited staffing presents management and communication difficulties.

Despite the challenges, all six districts and their partnered postsecondary institutions agree more students have the opportunity to earn potential college credits through the dual credit programs. As a result, be prepared for college-level rigor and expectations (Piontek et al., 2016).

CTE-Technical College

Harnish & Lynch, (2005) stated the State of Georgia had implemented credit-based initiatives to encourage student access to post-secondary education. As a result, the number of dual-enrolled students at the technical college increased over the past five years. The study intended to investigate the transitional process of dual enrollment students to technical college and the barriers to access and post-secondary completion. Additionally, the study looked into whether dual enrollment addressed inadequate student preparation, high levels of remediation, and low college completion rates.

The primary research question for the study, do credit-based transition programs, specifically dual enrollment facilitate college access and success for students who participate in them? The areas of focus for the research question included organization, participation and outcomes of dual enrollment. This study utilized a qualitative, descriptive case study method for the initial phase of the research. The cases focused on three collaborative efforts between the high schools and the technical colleges offering dual enrollment courses to high school students in Georgia during 2003-2004. This section also included a discussion on the sample selection, instrument development, data collection procedures, and data; for the research study.

Regarding the organization and administration of dual enrollment focus, the study found both negative and positive concerns about administrative structures, location of dual enrollment classes, staffing, funding, program development, and credit policies. The focus included some college-bound, most motivated by their peers to participate, some students not aware of the programs of study for their courses. It also had students where the admission test was a barrier for students to participate in dual enrollment. The focus area of outcomes for dual-enrollment student findings included no tracking mechanism of graduates available. Students benefit by being exposed to college. The programs were successful if students continued their training or furthered their education.

The data supported that dual enrollment meets multiple needs and allows students the opportunity to further their education or enter the workforce. However, stakeholders' involvement in learning more about technical college is paramount to facilitate access to postsecondary education. Such stakeholders include high school counselors, parents, school administrators, and state policymakers.

Phelps & Chan (2016) conducted a study exploring the relationship between high school CTE dual-credit course completion, college and labor market outcomes, and factors that influenced this relationship. The target sample included 2,300 students from 20 high schools who completed dual-credit high school courses between 2008-2010. The study focused on students who used their dual credits in a local institution. In addition to estimating the benefits of dual-credit systems, the longitudinal education and workforce data set considered the importance of other factors associated with student decisions in the high school-to-college-to-work transition. The study utilized a correlational design to examine the

association between dual credit courses and success at the technical college and in the regional labor market.

The measures utilized in this study included academic and employment outcomes, dual-credit records, academic backgrounds, demographic backgrounds, and school characteristics. The statistical analysis used the HTML framework. This framework supported the researchers' exploration of high school students in a shared learning environment before attending the technical college. This framework also helps the researcher connect the high school preparation effect on post-secondary academic and career achievement.

The study results found that selected student factors associated with dual credit learning positively impacted technical college students. One such aspect included the location and instructors of the dual credit courses affected student outcomes. Another factor, students' choice of career pathway program and length of program impacted student academic success. The researchers acknowledge that these factors and other findings point to the need for utilizing local market and college success data to support students making decisions to return to post-secondary technical programs.

Articulation Agreements

Types

Estacion, Cotner, D'Souza, Smith, & Borman (2011) reviewed a study where articulation agreements between high schools and colleges impacted student success. The study examined acceleration programs that included AP, International Baccalaureate (IB), Advanced International Certificate of Education (AICE), and dual enrollment. Each of these programs has the purpose of increasing student academic college readiness.

The mixed-methods approach to this study collected data on the number and characteristics of grade 11 and 12 students in Florida and reviewed several districts' dual enrollment articulation agreements. The study compared factors that supported dual enrollment and how dual enrollment numbers compared to the other accelerated programs. The study's findings showed 7.3% of grades 11 and 12 students participated in dual enrollment in the state of Florida during 2006-07. The study also revealed that dual enrollees were more likely to be white-English language learners and likely to take an additional accelerated course. The district-level findings showed four districts and five college partners utilized state statute to develop articulation agreements to support dual enrollment interest. Using state statutes, representatives from school districts could create and improve articulation agreements to meet the community's local needs.

Acai & Newton (2015) reviewed the articulation agreements between community colleges and four-year universities in Canada to impact student transfer and retention. The researchers noted that articulation agreements in Canada's selected cities are mandated; as they level the playing field for students facing certain factors and barriers. For example, students with two-year degrees can transfer between the community college and the four-year college and receive advance standing in the four-year college. There are different types of articulation agreements that exist in Canada to assist students in transferring. Bilateral agreements between two institutions allow students to share credits within related programs. Multilateral agreements consist of several institutions where students transfer credits from a single college program to any institution in the agreement with a similar program. Lastly, the concurrent program articulation agreement exists for students to work on the requirements for a college diploma at

one institution and a university degree simultaneously and in the same geographic area (Acai & Newton, 2015).

Benefits

According to O'Meara, Hall, & Carmichael (n.d.), the benefits of articulation agreements come from the participants' expectations and the process. Students benefit from participating in the articulation process by having improved access to college completion. College administrators benefit from the articulation process by complementing the community college's role as access for all, lower cost per credit, more academic advisory support, improved student retention rates, and enhanced cost-saving measures between colleges. Faculty members benefit from the articulation process by learning the methods, content, and quality of selected programs. Faculty can work in a collaborative environment for curriculum design. Faculty members can become content areas experts in program design; they participate in determining the curriculum's content, focus, and desired outcomes (O'Meara, Hall, & Carmichael, n.d.).

Patton (2017) stated articulation agreements benefit students in promoting a seamless transfer from the two-year institution to the four-year institution. Such examples include colleges collaborating with other institutions to ensure effective articulation agreements are in place that promotes college completion rates. One such example is the collaboration between the City University of New York (CUNY) and LaGuardia Community College (LCC). Through this collaboration, all new programs include an articulation agreement between schools and other four-year institutions in the area. Collaboration ensures the benefit of a seamless transfer to a four-year college. Another example of articulation agreements' help is the Utah System of Higher Education (USHE) in Salt Lake City. Here, eight public Utah institutions share the same or similar learning outcomes. They accomplished this through collaborative efforts between

faculty members and admission staff in discussing learning outcomes, expectations, assessments, and program development. Lastly, the Ohio Model shows the benefit of articulations by allowing students to fulfill general education requirements and transfer as juniors from any community college in the region to Baldwin Wallace University. Through the collaborative efforts of faculty, the offices of admissions, advisors, registrars, communication departments, and college recruiters, the transfer programs have successfully promoted college persistence and graduation (Patton, 2017).

Dual Enrollment Statistics

Federal data has shown dual enrollment is gaining all across the United States (Chatlani, 2018). The National Center for Education Statistics states, between 2002-3 and 2010-11 academic years, the number of dual enrollment students increased by 80% to 1.2 million students. Supporting this statement is data from the National Student Clearinghouse Research Center (NSCRC) found that 15% of the fall 2015 US community college entrants were high school dual-enrollment students. The NSCRC research group tracked approximately 200,000 students from 2010-2016. They found that 41% of the dual-enrolled students went on to the community college; 47% went on to a four-year college; and 12% of the dual-enrolled high school students did not enroll into some college by the age of 20 (Chatlani, 2018).

At the technical college level, Georgia conducted research to review the trends of dual enrollment students. In the Georgia report, 2016 and 2017, the total count for post-secondary credentials increased from 783 to 1,438 for the graduating class. Specifically, the post-secondary credentials earned for technical college certificates were 746. The community college associate degree earned was 37 in 2016. Whereas in 2017, the post-secondary credentials earned for

technical college certificates increased to 1,313. The community college associate degree earned risen to 125 (Chalasani & Bond, 2018).

Researchers Karp, Calcagno, Hughes, Jeong, and Bailey (2007), through the National Research Center for Career and Technical Education (NRCCTE), conducted a study on the post-secondary achievement of dual enrollment students in the states of Florida and New York. This study reviewed Career and Technical Education (CTE) dual enrollment students and academic dual-enrolled. There was limited research available for the single population of CTE dual enrollment students. Until recently, most research focused on academic dual enrollment associated with Advanced Placement (AP) courses and International Baccalaureate (IB) programs (Kleiner & Lewis, 2005).

The NRCCTE research team found that Florida provided dual enrollment opportunities to all Florida students who meet the GPA guidelines. This study reviewed data from 2000-2001 and 2001-2002 high school graduating cohorts in Florida's state tracking system across secondary and post-secondary public institutions. The NRCCTE research team analyzed all academic dual enrollment students (two-year and four-year colleges) and the second analysis of CTE dual enrollment students (technical college). The researchers positively related to students' likelihood of earning a high school diploma. The full sample (academic dual-enrolled students) were 4.3% more likely to earn their high school diploma, and CTE duals were 1% higher than their peers in earning their high school diploma. In addition, participation in dual enrollment was positively related to students' enrollment in college and the likelihood of enrolling in a four-year institution. The data showed 7.7% for all students and 8.6% for CTE students; also, if the students enrolled in a four-year institution, they were likely to enroll as full-time students due to their dual enrollment participation. As students continued in college, the study found that dual-

enrollment participation had a positive likelihood of remaining enrolled two years after high school and maintaining a higher GPA than their non-participating peers (NRCCTE, 2007).

Such findings for Florida's state showed that these students were more advantaged among the CTE students' sub-sample (high-level socioeconomics and academic achievement) than their non-dual enrollment peers. Here dual enrollment traditional college-bound students focused on high tech CTE fields, where non-dual enrollment (academic dual enrollment with community college) students focused on participating in CTE fields that do not have the well-developed college pathway connection (NRCCTE, 2007).

The NRCCTE research for New York state's utilized the City University of New York (CUNY) and approximately 300 high schools for its dual enrollment opportunities. During the years of 2001-2006, there were 113,796 students in College Now for dual enrollment. The NRCCTE research findings include that College Now participants were more likely than their peers to pursue bachelors' degrees, and College Now participation was positively related to first-semester grade point averages. Also, College Now participants could simply progress towards a degree by earning more college credits three and a half years after enrolling than their non-participating peers. One difference from Florida's findings was that the College Now students who had participated and taken two or more courses were 3.5 times more to enroll as full-time college students than non-participating students (NRCCTE, 2007). This intensity in participation impacted the long-term outcomes of the three variables reviewed, such as persistence to second year in college, grade point average after four years, and progress towards a bachelors' degree (NRCCTE, 2007). This study has opened the door to why CTE dual enrollment students select their articulating two-year college or another non-articulating post-secondary institution. We

now have data to support that CTE dual enrollment has impacted student persistence and college degree attainment.

In reviewing the community college support of dual enrollment, it has been shown that the number of high school students taking dual enrollment courses while in high school has grown drastically across the United States. One such example is the partnership between Forest Trail Academy and Waldorf University in Iowa. This partnership allows secondary students to earn their high school diploma and an associate degree through an online learning platform (Forest Trail Academy, n.d.). In Arizona, Arizona State University (ASU) Prep Digital allow students to take a single course or attend full-time in a diploma-granting program. As dual enrollment students, participants have the opportunity to be accepted in ASU's accelerated college admission pathway (Arizona State University, n.d.). In South Carolina, hundreds of students participate in Midlands Technical College (MTC) dual enrollment programs to get an early preview to meeting their career objectives. Students have the option of attending classes on any of the six regional campuses; or students may be in a district where MTC instructors are teaching courses at selected high schools. MTC has an articulation agreement with several public and private institutions within the state of South Carolina. Through its articulated agreements, participants of the Bridge Program can complete their educational goals in less time and with less debt (Midlands Technical College, n.d.). Strong articulations support the foundation for the two-year/four-year partnership, which helps develop improved course planning (Hossler and Bontrager, 2015). This articulation partnership allows families to take advantage of the opportunity to give their students a jump start on college credits and finish a college degree sooner (Finks, Jenkins, and Yanaguira, 2017).

Fink et al. (2017) conducted a study of high school students and their dual enrollment students with the community college. Fink et al. (2017) tracked 200,000 high school students for five years, 2010 through 2016, as they took their first community college course while in high school. In monitoring the students, the researchers found eighty-eight percent of the students continued college after high school. Furthermore, with continuing to college, many earned certificates, associates, and transferred to a four-year university during this same timeframe within five years (Fink et al. 2017).

Findings from Fink et al. (2017) include high school dual-enrollment students who made up 15 percent of fall community college enrollees. Half of former community college dual enrollment students first attended a community college immediately after high school. Another key finding among former dual enrollment students who started at a community college right after high school was 46 percent earning a college credential within five years. Lastly, among former dual enrollment students who started at a four- year college right after high school 64 percent completed a college credential within five years (Fink et al. 2017). These findings support previous studies. Taking college courses in high school allows students to earn college credentials in a timely fashion.

For dual-enrollment students at the four-year university, Cowan and Goldhaber (2013) conducted a study of a dual-enrollment program in Washington. The purpose of this study was to utilize statewide data to investigate the impact of dual enrollment on high school graduation and college enrollment (Cowan & Goldhaber, 2013).

The Cowan & Goldhaber (2013) study investigated the main dual enrollment program in Washington, Running Start, where the participants were tracked from their early high school experience through college. The study included participants in Running Start during the school

years of 2006-2007 through 2010-2011, during grades 11 and 12. The analytic sample of 177,863 included 78% of the total student population enrolled at all types of high schools in the state of Washington (Cowan & Goldhaber, 2013).

Cowan & Goldhaber (2013) show that Running Start participants are more likely to attend college after graduation than non-participants. Specifically, 76% of participants attend any college, and 54% participate full-time. Another finding of the study regarding college enrollment outcomes free lunch Running Start participants are 7.1% percentage points more likely to experience in any college than a baseline effect of 5.3% percentage points than non-participants. Asian and African American participants in the Running Start program are more likely to attend a four-year college. Specifically, African American participants are 0.9% more likely to participate in a four-year university than non-participants (Cowan & Goldhaber, 2013).

The accrual of college credits is another finding of the Cowan & Goldhaber (2013) study. Students who attended Running Start full-time for two years and have earned 76 credits or more are 15% more likely than non-participants to earn an associate degree (while in high school) or enroll in college right after graduating from high school. It was also discovered that the closer students were to earn their associates, the greater the incidence of attending a community college rather than a four-year college, immediately after high school, regarding college enrollment. The study found that Running Start participants were more likely to attend in-state public colleges than similar students. Specifically, the study found 82% of first-time college students enrolled in Washington State public college.

Overall, Cowan & Goldhaber (2013) discovered that students who participate in dual enrollment are more likely to enroll in any college immediately following high school. However,

they are no more likely to attend full-time and less likely to participate in a four-year university (Cowan & Goldhaber, 2013).

As a result of these studies, focusing on the technical college, community college, and four-year college, the education community, has a basis for the positive impact on students' lives. However, a new question has arisen about how has dual enrollment students been impacted by participating in a dual-enrollment program?

Students' Impacted by Dual Enrollment Participation

Recent studies have focused on dual enrollment from the institution's perspective regarding enrollment, retention, and graduation numbers. Britton, Chelliah, Symns, and Campbell (2019) studied dual enrollment students who graduated on time from a public high school in 2016 from New York City. This sample included students who enrolled in the College Now program during 2014-2016 as 11th or 12th graders, representing 74% (443 out 599) of New York City's public high schools that offer dual enrollment. The researchers used regression discontinuity design (RDD) to estimate the treatment's casual local average effect. The treatment represented eligibility for dual enrollment in college classes while in high school on college enrollment. The research findings showed that being eligible for College Now leads to a 7% point increase in the possibility of registration in four-year college enrollment and an 8.6% point increase in the case of registration in a four-year college. The researchers also found that students who enrolled in College Now for dual enrollment were 20% more likely to enroll in college (Britton et al., 2019).

Researchers from the National Research Center for Career and Technical Education (NRCCTE, 2007) conducted a mixed-method study to compare participation outcomes versus nonparticipation in CTE transition programs for secondary students. Researchers conducted a

study on 136 secondary students, including 68 CTE students (32 Information Technology Program students from the Northwest site and 36 Health Program students from the Southeast site) and 68 non-CTE students. They assessed the impact of high school CTE transition programs on academic performance, transitions to college and career, and the effects of participation in CTE and high school engagement level. The findings showed that CTE students reported participating in more transitional practices-contextual learning, job shadow, mentoring, dual credits, and work-based learning than their non-CTE student counterparts. Regarding the impact of CTE on high school achievement, CTE students participated in significantly more CTE classes than non-CTE students. Secondly, neither group differed in their academic courses or GPAs, which showed that CTE participation did not hinder academic course taking or educational achievements. Finally, CTE students were as likely to be enrolled in college as their non-CTE counterparts regarding college and career transition. Still, they were significantly more likely to enroll in their target CTE program (IT or health), which successfully transitioned from the dual enrollment program. Once in college, CTE students had high aspirations for higher education than their non-CTE counterparts (NRCCTE, 2007).

Studies have shown that dual enrollment impacts the workforce industry, full-time employment numbers, and closing the skills gap in specific sectors from the community's perspective. Phelps and Chan (2016) conducted a study to learn the relationship between high school CTE dual credit course completion, college, labor market outcomes, and factors that influenced this relationship. Researchers sought to answer the question, "What types of dual credits are related to students' labor market success in terms of employment status and annual income? They sampled 2,300 students from 20 high schools who completed dual credits between 2008-2010; from a high school or technical college system in an upper Midwest state. The study

utilized a correlational design to examine whether completion of dual credits was associated with success at the technical college and in the regional labor market. Researchers also looked at how dual credit is related to earning income above the federal minimum wage. The study's findings showed that 30% of the students transferred dual credits to the midwestern technical college. These dual transferred credits also indicated students having higher college course completion rates. In the employment status analysis, the researchers found that students who transferred dual credits had a 7.8% and 8.6% greater likelihood of being employed in three years. Specifically, students who completed a one to two-year science, technology, engineering, and math (STEM) technical field program were more likely to be employed over students who completed dual credits in the one-year or less career-technical fields. The study found similar employment results based on the program length and type of career technical program regarding wage earnings. Students who completed the short one-year programs earned less in FY13 than students who completed two-year study programs. Those who transferred in more credits majored in STEM and completed one to two-year technical programs reported a higher salary than those who majored in a health-related field reported a lower wage in FY13.

Researchers with ManpowerGroup (2018) conducted a quantitative study on the impact of talent shortages on companies worldwide. The study surveyed 39,195 employers in 43 countries and territories. This research has utilized the most extensive human capital study of its kind over the past twelve years. The trend data findings show that 45% of the employers can not find the skills for their jobs, and 67% of the larger companies are challenged to fill openings.

The MANPOWERGroup recognized that this shortage impacts all fields; to include manufacturing, mining, transportation, and trade. Twenty-seven percent of the employers stated they could not find the right people with the right combination of technical skills and human

strength. In addition, a majority of the top ten in-demand fields do not require a 4-year degree; to include the impact of the digital age transition of skills needed by employees at many companies.

The researchers found employers are strategic in meeting these challenges. For example, 64% of the employers stated they are upscaling their workers' hard skills through obtaining technical certificates, apprenticeships, and programming courses. Additionally, 56% of employers support their workers with soft skills training in customer service, sales, and communications. The MANPOWERGroup has observed that employers are more active than ever in implementing a combination of workforce strategies to address the talent shortage challenge (MANPOWERGroup, 2018).

Chapter 3: METHODOLOGY

This study's primary objective was to understand why the technical college dual enrollment student chose a two-year college or a four-year college outside of their oral agreement. The qualitative design related to the study's objective was personal involvement and empathetic understanding (Glesne, 2006) for students and their post-secondary options as we came to know what we know.

The researcher discussed the methodology of this study in this chapter. The essential sections in this chapter include (a) the paradigm of inquiry, (b) research design, and (c) a discussion of the study's conceptual framework. Also included are descriptions of the research questions' recapitulation and an overview of the study's and sample. As the researcher, I will review the participant identification process, instrumentation, and data collection in this chapter. Additional sections in this chapter include data preparation, data analysis, cross-interview analysis, and a summary of the data process. Lastly, this chapter discusses design issues, confirmability and outline, human participants, ethical considerations, and closing with a concluding statement.

Paradigm of Inquiry

The ontological and epistemological viewpoints emerged congruently as the basis for the inquiry paradigm in this study. As the researcher became an insider in the study, the participants shared different perspectives of their dual enrollment knowledge based on their unique experiences. Creswell & Poth (2018) stated that qualitative researchers looked at multiple realities while remaining close to studied participants.

This closeness and revelation of perspectives from the participants helped support the social constructivism paradigm evident in this study. Descriptive social constructivism was

individuals derived an understanding of their world through their lived experiences. The researchers look at the complexity of the participants' varied views. As such, the researcher could benefit from the diverse perspectives to build a deeper understanding of the connections between the social, historical, and cultural norms that operate in individuals' lives (Creswell & Poth, 2018). These varied views were evident in the participants' responses. Participants responded to the research questions based on their individual lives, working, living, and attending school.

Individuals who complete dual enrollment Career and Technical Education (CTE) credits at the technical college decided to pursue advanced degree opportunities based on various life experiences. As this study focused on individuals reflecting on their post-secondary decisions and the role of family, community, and the educational environment that shaped their choices, the social constructivism paradigm was a good match. The research questions also mirrored the social constructivism paradigm as the participants themselves constructed meaning and understanding of their perceptions. Thus, the constructivist paradigm provided a solid foundation for the study to create and make meaning of knowledge for themselves.

My past knowledge helped me better understand my research topic's paradigm position is an integral part of my being. My work experiences, education, socioeconomic identity, and personal history have brought me to my social constructivist position. I have found meaning and value through my individual living experiences; in CTE. I view learning as a particular sport. One derives their knowledge in life from the choices and decisions they make to pursue unique joy. Therefore, the social constructivism paradigm was the best match for this study because it supported how individuals, such as dual enrollment students, made sense of their own experiences. This paradigm was a reflection of the researchers' position on the reality of learning.

Qualitative Research Design

This study looked into the institutional interactions between students and institutional personnel. Creswell and Poth (2018) stated that qualitative research is warranted when a group or population's voices receive a public stage.

Although no format exists for a qualitative study (Creswell & Poth, 2018), the study considered the research's essential component: the purpose statement or the study's overall intent. The study's objective focused on compiling the data and describing the findings' analysis (Glesne, 2006). As such, the study intended to analyze perceptions against outcomes.

Methodological congruence or communicating the interrelationships between the purpose, questions, and research methods were necessary to present a connected study for the readers (NLU, 2018). The researcher included the qualitative approach and encoding to represent the research's action to connect the study's purpose, questions, and methods. The study observed students' interaction with the TechExpress Advisor and interviewed former CTE dual enrollment students. The researcher used the two strategies to analyze how secondary students' transition process supported enrolling in the choice's post-secondary institution.

Case Study Research Design

As qualitative research design looks to understand a complicated situation that is not easy to measure, the researcher sought to understand the identified problem's complex factors (NLU, n.d.). The case study research design identifies itself as more than a research method because it maintains its unique characteristics related to real-life events (Yin, 2009). In building a research purpose of understanding the situation, the researcher must utilize an appropriate approach for its study. As such, this study used the case study of qualitative research design. This study sought to identify the complex factors impacting students' decisions regarding furthering their post-secondary education.

In qualitative inquiry, case studies vary from one discipline to another. A review may change in studying one person, to a group, to an entire community. The three types of case study designs include intrinsic, instrumental, and collective. The inherent case study design looks to a specific case or issue. The instrumental case study design looks to studying a topic that interrelates between two subjects. Lastly, the collective case study design looks at several cases of an issue where the researchers investigate a phenomenon, population, or general condition (Glesne, 2006).

The case study design involved in this study was the intrinsic case study. The researcher reviewed one of the five campuses of Orange Technical College (OTC). The goal of reviewing one campus was in the context of participant observations and in-depth interviewing. The sheer size of conducting the study across five campuses was too arduous to attempt. The replication of results was also a consideration to decide to limit the study to one campus.

Conceptual Framework

In working closely with secondary Career and Technical Education (CTE) dual enrollment students, I heard their stories of challenges and successes in making it through high school. My interest in researching former CTE dual enrollment students came from observing students' social problem making about post-secondary options. Many students made crucial decisions regarding their future. Creswell and Poth's (2018) lens, assumptions, and interpretive/theoretical framework set the foundation for qualitative research. Through qualitative inquiry and inductive and deductive data analysis, data collection in a natural setting will help support patterns or themes I find in my study with former secondary CTE dual. These patterns may help me understand why former dual-enrollment students chose a particular post-secondary option for future endeavors.

The interpretive framework that most closely aligns with my planned work is social constructivism. My goal is to understand the CTE dual enrollment world and how it has been interpreted by those who engage in this education system (Creswell & Poth, 2018). I presume that the ontological belief or the nature of reality for CTE stems from many facts based on students' experiences and their interactions with educational professionals (NLU, slide 7, 2018). One other interpretive framework that displayed within my planned work includes the postmodern perspective. To change individuals thinking about CTE dual enrollment and ideas, I present CTE's varying viewpoints and perspectives through my research to this framework's goal.

In doing so, this research implies developing a significant shift in establishing a cultural mindset that supports CTE as a viable post-secondary option for secondary students. Where currently, the question is, where are you going to college? As opposed to what do you want to be when you grow? The second question focuses on putting the student on a specific pathway to career success; before enrolling in a post-secondary institution.

This research project aimed to better understand why dual enrollment students at one technical college campus pursue advanced degrees at different institutions, other than the institution where an articulated agreement exists for CTE program completers. This question led to the investigation of the following areas or questions:

- How the dual enrollment transition process work at the articulated institution?
- How did students perceive support for post-secondary exploration from the articulating institution?
- How did students perceive support for post-secondary exploration from a non-articulating institution?

- How did students perceive support for post-secondary exploration as a CTE dual enrollment student?

The technical college CTE program completers at one campus support the conceptual framework for this study. Their transition to post-secondary options is based on influences from economic, sociological, and information processing approaches (Hossler and Bontrager, 2015).

The three theoretical models-economic, sociological, and information processing, frame student college choice, all emphasize different aspects of factors explaining student college choice. Hossler and Gallagher (as cited in Hossler & Bontrager, 2015) developed a three-stage model utilizing a review and reestablishment of former research. These stages include predisposition, search, and choice (Hossler & Bontrager, 2015). Messer (2016) expounds on the three-stage model by describing factors that influence students during each stage of the college choice model (Figure 1).

Recapitulation of Research Questions

College aspirations developed when students go to college or take a military or workforce path regarding the predisposition stage. The search stage occurs when the student collects and reviews college information to learn more about the institutions in which they consider matriculation. The model's choice stage occurs when the student applies to multiple colleges and eventually enrolls in the college of their choice (Hossler & Bontrager, 2015).

Exploring these conceptual approaches occurred through interviews and surveys, with answers from the students' interview participants. Thus, while the holistic analysis design will involve open coding to reveal overarching concepts, themes, and comparisons, the researcher will be looking for the general constructs of the participants' perceptions.

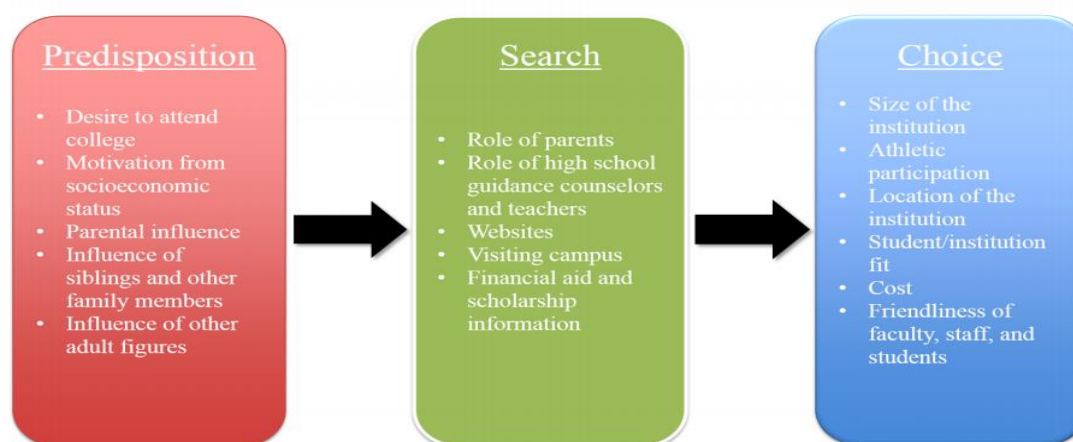
Figure 1*Recapitulation of Research Questions*

Figure 1. Factors that influence the three stages of the College Choice Model (Hossler & Gallagher, 1987)

Dual enrollment students may earn traditional academic credits or career-technical credits through the two-year college or the technical center/college. At the same time, they are currently students in high school. Based on articulation agreements, these credits may be transferred to the two-year college or transferred to the four-year college if earned at the two-year college first. Thus, saving time and money in completing advanced degrees reveals our problem of practice, which is student debt and students leaving college without degrees.

Rosenbaum, Stephan, and Rosenbaum (2010) state, "quick-win certificates can be the first step on a degree ladder to associate's and bachelor's degrees. The certificates may also boost students' confidence, practical skills, potentially better jobs while in college, and experiences to inform their career choices (p. 12)". If informed students knew about both options and their likely implications, they could choose which one best fits their needs. However, suppose we let our Bachelors of Arts (BA) ideals keep us from providing information. In that case, students

cannot make informed choices (p. 12)." Students will continue to choose prestige over practicality and attend schools where they incur student loan debt or leave school without a clear career pathway. Secondary and post-secondary education leaders must have a growth mindset to promote a culture of transparency and honesty. As such, this growth mindset will pertain to all post-secondary options and pathways to further advancements.

Thus, our dual-enrollment goals promote full disclosure of post-secondary options and support students transitioning out of technical college. The research question, "Why do CTE technical college dual enrollment students select a two-year college or a four-year college to further their post-secondary goals?" It is broken down into its sub-questions:

- How do students perceive being supported at their high schools for post-secondary exploration as CTE dual enrollment students?
- How do students perceive they are supported as CTE dual enrollment students who transition to the articulating institution?
- How do students perceive they are supported as CTE dual enrollment students who transition to a non-articulating two-year institution?
- How do students perceive they are supported as dual enrollment students who transition to a non-articulating four-year institution?

The research question and sub-questions are warranted because the productive lives of our students are in the balance. Therefore, we educators- owe it to students to provide all options and actively promote this transparency (negative and positive). Thus, students can make appropriate and knowledgeable choices about their future success.

Population and Sample

As a researcher for this study, I explored twelve former college dual-enrollment students'

post-secondary decisions through interviews and survey completions. This section describes the population and the criterion-based, purposeful strategy employed to secure the sample.

This study's population consisted of twelve young adults who graduated from different high school areas and were participants in CTE dual enrollment with the technical college. The students all attended one campus of the local five-campus technical college, located in the southeast United States.

I identified the sample for this study through the application of a criterion-based sampling strategy. First, I selected participants to achieve the most significant varying responses in collecting the data by sampling eligible participants.

The criterion-based sampling strategy allows the researcher to determine factors related to the research question and utilize the factors in selecting participants for the study (Creswell and Poth, 2018).

The first criterion for the study was that the student had to have achieved a secondary student's senior level. This criterion was a factor in the research because seniors were graduating and making post-secondary decisions upon graduating in this their last year of high school. The second criterion for the study was that the participant had to have attended a high school located in the Central Florida K-12 school districts. The rationale for this criterion was to ensure the population reflected the student demographics of the Central Florida K-12 districts and obtain varying participants' varying perspectives. The third criterion for the dual enrollment student was that the participant had to be enrolled in a CTE program for at least one year. This criterion's rationale was to ensure the student was on track to meet the community college's articulation requirements by completing the program and other requirements. Such conditions may include a portfolio submission, college assessment, industry certification, a demonstration, or a skills

inventory. The articulation agreement is a collaboration between the technical college and the state two-year college. Students can earn college credits from six to twenty-four credits towards an associate of science degree (Valencia College, n.d-b).

While the sample size of up to twelve interviews may seem small, Creswell & Poth (2018) states this number should provide enough data to identify the cases' themes, including cross-case theme analysis. In this case study, the researcher employed maximum variation as a sampling strategy to represent diverse cases and describe multiple instances altogether. At the local technical college, many dual enrollment students from various demographic backgrounds take advantage of varying CTE programs based on their interests. Therefore, the sample size provided multiple perspectives regarding post-secondary selections amongst the participants in the study.

Participant Identification Process

I used several steps in the process to select the sample population for this research project. George Mwangi and Bettencourt (2017) stated that participants reveal their perspectives in the research process. Thus, the identifying process must include a descriptive system connected to the focus of the research topic.

The first step in the identification process began with willing participants via electronic email to former dual enrollment students (Appendix A). I sent an email to twenty former CTE dual enrollment students (chosen through the process described above in the sampling strategy). A follow-up phone call was made two days later to the participants to ensure that the email request was received. I offered to answer any questions about the study. If the potential participants within two weeks received no response, I followed up again via a phone call. I used

the phone calls to inquire and address further questions and solidified confirmation. I followed these procedures until I confirmed up to twelve participants.

Anyone who declined to participate in the study was sent a thank you email to follow up and end communication (See Appendix B). Next, I sent a follow-up email (with a paper copy sent by U.S. mail) to the identified participants (See Appendix C). Accompanying the letter was an interview guide, a demographical survey request, and the informed consent form (See Appendix D). The letter of invitation that each participant received specified a 2-week timeframe to return appropriate confirmation and documentation of their desire and intent to participate in the project.

Although each participant had already provided a verbal commitment of interest over the phone, I used the two delivery methods (email and direct mail) to increase participants' likelihood of responding within an appropriate timeframe (Dillman, Christian, and Smyth 2007).

In the formal letter of confirmation, I sought demographical information on the former student participants. I requested the documentation to be forwarded 2-weeks before the interviews with the participants. I wanted to become familiar with each participant's background, gain insight into their educational journey and life experience since graduating from high school, and modify any proposed questions accordingly. Because I conducted the interviews separately, it was essential to individualize each interview to meet the participants' time constraints.

Also, through this contact, I established a date and time for the interview. I scheduled this information over the telephone. A second sending of the interview protocol took place to ensure that the interviewee had the protocol before the interview. This action enabled the interviewee to prepare for the questions, inquiries, and themes of the interview. This action also helped

eliminate any apprehension surrounding the interview by the participants; regarding the interview itself or the study's topics (Grenier and Merriam, 2019).

The sample of up to twelve participants in this study involved in dual enrollment as a student were selected using a criterion-based sampling. During the sample selection process, communication included phone calls of invitation, letters of invitation, follow-up phone calls, electronic mail communications, and thank you cards and letters.

Instrumentation and Data Collection

This section explains the instrumentation (interview protocols and checklist) used to collect former CTE dual-enrollment students. The participants' interviews were the primary data sources for this study, supported by the demographical survey.

Demographical Background Information

I obtained a demographical note from each of the student participants in the study before the interview. These documents were obtained directly from each participant via electronic means. I reviewed each manuscript to understand better the educational pathways and life experience details that might lead to the interview. After completing the interviews, I used the documents to verify the experience, information, demographical statistics, and places noted in the interviews.

Semi-Structured Interviews

To better understand independent thinking, asking probing open-ended questions in a semi-structured interview is best suited for this situation (Newcomer, Hatry, and Wholey, 2015). This section explains why I completed semi-structured interviews for this study and describes the interview instrument's design and the data collection process.

I selected semi-structured interviews for data collection for this research study. As Newcomer et al. (2015) explained, this method allows participants to roam around the general topic while generating their unique perspective. In addition to responding to the interview protocol's questions, the semi-structured interview process allowed me, as the researcher, to engage and respond to the interviewee and probe with further questions (Newcomer et al., 2015). The questions utilized in this semi-structured interview process consisted of open-ended questions, which allowed the study participants to answer some basic baseline questions. The formatting of questions allowed me to compare independent perceptions and provided flexibility and authenticity of the participants' responses (Jong and Jung, 2015). I selected the semi-structured interview process as the interview method for this study. It allowed the participants to provide full details, descriptions, and personal experiences while still ensuring the research questions' original intent.

To manage the interview process, I utilized an interview protocol and a checklist. The interview checklist was the guide followed throughout the process with each participant (Jong & Jung, 2015). The interview guide allowed for a comprehensive and systemic approach to managing the five different interviews for this study. I foreshadowed the interview questions and enacted delimitations on the interview questions in manageable data collection. It allowed each participant to follow their conversation relating to a topic and for the interviewer to keep up with this discussion, even if the participant extended their discussion and went off-topic; by going ahead or lagging behind the interview topics guide. This approach's weakness was that information was not presented in alignment with each step observed across all of the interviews, increasing comparing the interviews, and conducting the analysis. Considering both the strength and weaknesses of the selected interview approach process, the investigator concluded that this

was the most appropriate and efficient method for conducting the interviews in this study. Due to technical college, students are conversing with college academic advisors and counselors during their exit interviews or admission process.

Thus, the components of the interview were formulated into a 15-question outline (See Appendix E). As a result of the semi-structured nature of the talks, the checklist served as a guide. The interviews themselves may not have followed the exact sequence that I considered for the sessions. The list provided the overall structure to ensure that I asked all of the questions systematically and in the same approximate order across all the participants (Jong & Jung, 2015). The research questions drove the creation of the interview questions. I considered great deliberation was taken to ensure an appropriate number of interview questions to address the research topic's depth in its totality. (See Appendix F for Interview Protocol Crosswalk Table)

Main questions, follow-up questions, and probing questions were the three types of questions utilized in all the interviews (Jong & Jung, 2015). In review, the main questions provided the focus for a set of questions to follow. They responded to the answers developed through the main problems. The researcher utilized follow-up questions to ascertain detailed responses' elaboration. Finally, through the actions of verbal and nonverbal cues, I used probing questions to go in-depth into the reactions of the questions and to obtain the desired impact in the interview (Jong & Jung, 2015).

Lastly, I used follow-up questions to provide clarification from questions asked previously during the interview process. I used these questions when probes were unsuccessful in providing sufficient detail, insight, or depth in responses. Throughout the interview, I engaged in active listening and nonverbal strategies to inspire the interviews' progress and intensity (Brayda

and Boyce, 2014). The interview questions were designed intentionally and with great care to acquire a complete set of possible responses.

To summarize, the interview guide provided the necessary structure to ensure a comprehensive and systematic collection of the interview data. This technique was used as a guide and self-check to align with the research questions during and after the interviews. Careful forethought and planning ensured that I conducted the interviews with the former students effectively. First, setting up the telephone interviews took place well in advance utilizing electronic mail and telephone correspondence directly with the study participants. Second, the telephone interviews were conducted at each participant's convenience and were all run over the telephone. Third, all participants received a copy of the interview protocol at least two weeks to ensure appropriate thought and preparation before the interviews.

In conclusion, I used semi-structured interviews in this study. The technique allowed me to understand how perceptions impact students' decision-making process and assist students in making those decisions; directly from themselves.

Data Preparation

Systematized data preparation was critical in maintaining a coherent and organized study to accomplish the goals. Therefore, I followed several steps to prepare qualitative data for analysis (Creswell & Poth, 2018).

A licensed transcriber deciphered the audio recordings of the interviews verbatim within two weeks of each session. Second, I used the services of an outside firm to perform the task of transcribing the interviews. Third, I provided recordings to the firm via overnight mail and the signature receipt requested. To check for accuracy and better understand the material, I listened to each interview in its entirety and compared it to its matching transcript.

Data analysis was supported by Deboose software, as this was how to keep the study. In addition, the Deboose software provided several positive aspects during the analysis phase. First, it allowed electronic memos to be recorded. Next, I documented the management of codes and quotations during analysis. Lastly, this software allowed the researcher to utilize keywords and phrases to search through the text effectively. With this research, this software was useful with several qualitative strategies-coding, memoing, pattern matching, and theme development (Merriam & Tisdell, 2009). Each of these strategies was needed to bring out the connections within the robust data. This software helped communicate data results effectively to the final product through its organization and systemic linkage.

For accessibility and manageability purposes, I systematically organized data (Creswell & Poth, 2018). Throughout the study, I utilized a comprehensive coding system that involved numbering each document and interview, including the participant's name or document title, date, and location.

I saved the audio interviews on a USB drive and a hard drive. Transcripts were also saved on a USB drive and hard drive, along with a printed hard copy. I protected all electronic copies with a password. I saved the USB drive in a separate location from the other hard drive electronic copies. I secured the hard drive electronic copies in a password-protected section of my home-based computer. I am the only individual with access to the computer. In summary, I followed these security steps to prepare data for analysis and to ensure the research project's investigative rigor.

Data Analysis

This section details three levels of analysis and the analytic strategies used within each level. Performing a data analysis involved an initial review of individual interviews and

finally across the interviews through a cross-analysis (Creswell & Poth, 2018). Second, research within the interviews provided the opportunity to understand each participant's individual lived experiences and reflections on their decision-making process regarding post-secondary education choices. Finally, the cross-interview analysis allowed me to compare responses and categories across the different interviews to acknowledge common themes throughout the study.

Within-Interview Analysis (Individual Interviews)

The within-interview foundation shows participants' uniqueness in the interview process (Merriam & Tisdell, 2009). The within-interview analysis's primary goal was to delve into each interview's focus to establish a firm knowledge. I base that experience on understanding the interviewee's context, show descriptive detail, and discovering unique qualities within the transcript. Several processes, such as memos, coding, pattern-matching, and theme development, were utilized to achieve the analysis goals.

Memos

Memos were incorporated into the research process from the project's onset and integrated with the coding process to support the researcher in thinking analytically (Creswell & Poth, 2018). During the early phases of analysis, memoing allowed me to track the development of ideas throughout the research process. The memoing strategies utilized through the research process included self-reflective memos, analytical memos, and theoretical memos (Corbin & Strauss, 2008).

Self-reflective memos were a snapshot of my initial thoughts and reactions during the data collection process and in the first descriptive coding (Creswell & Poth, 2018). The memoing process was beneficial to remember reflections and observations throughout the categorization process and supported the emphasis of interpretation later during the data's coding aspects.

Analytical memos were a compilation of questions, speculations, inferences, emerging themes, and interpretations (Corbin & Strauss, 2008). These memos were joined together and used in later data analysis to cross-reference codes across interviews and assist in data interpretation.

I created theoretical memos during data analysis to aid in the process of interpretation. The researcher implemented memos to record thinking about possible relevant categories and their relationship to theories. The utilization of theoretical memos increased theoretical sensitivity and provided direction for further analysis later (Corbin & Strauss, 2008). No interpretation occurred during this stage of analysis. Instead, I was interested in ensuring that data were accurate and robust for each particular transcript and analyzing data concerning the student enrollment theoretical framework of Hossler & Bontrager (2015). The utilization of the three memoing strategies contributed to the descriptive detail throughout the entire data analysis process.

Coding

There were multiple steps involved throughout the coding process. First, I conducted the process of reviewing data for specific information (Merriam & Tisdell, 2009), level coding, comparing coding (Corbin & Strauss, 2009), or descriptive analysis (Merriam & Tisdell, 2009). The multi-step coding process aimed to reveal broad concepts, categories, and properties in the surveys and interviews. At this stage, I sought to uncover and organize information before the interpretation phase (Saldana, 2013). With it being the cornerstone of qualitative data analysis, this phase of organizing reliable, robust, and descriptive detail provided the foundation for interpretive analysis later in the process (Saldana, 2013). This process involved breaking down, studying, and categorizing data without engaging in interpretation. I reviewed interview transcripts and surveys several times to ensure the accuracy of correct coding. The coding at this

particular stage had the primary purpose of uncovering descriptive data for the first few within the case (individual interviews) analyses. As the process unfolded, there were times when I began informal interview analysis and cross-analysis with the assistance of memos.

Pattern Matching

I read through the transcripts to ascertain patterns of details and codes within each interview. I sought to link codes into similar arrangements and groupings (Yin, 2009). During the analysis, coding established interpretive constructs that emerged from the data (Merriam & Tisdell, 2009). I grouped similar characteristics, behaviors, and related data into thematic categories to identify within-case patterns in this analytic process. This analysis sometimes took place during and after the coding process. Once patterns started to emerge, they provoked me to go back into the transcripts to ensure that coding was consistent across the interviews. Those patterns or categories emerged from some interviews, I probed for in other interviews for consistency and clarity.

Illustrative displays of data: concept networks

Patterns I found matching, I facilitated them by using illustrative data displays (Verdinelli & Scagnoli, 2013). At this level, I used data displays in concept networks to permit a systemic interpretation within interviews (Merriam & Tisdell, 2009). Deboose software support this process through the electronic creation of networks based on the emerging patterns, which I later translated into the matrices in the cross-case analysis. Throughout this descriptive data analysis stage, the networks helped me concisely display the data collected to ensure each participant's understanding.

Cross-Interview Analysis

Once the within-interview analysis were completed, the next level of the examination was across interviews (Creswell & Poth, 2018). At this level of analysis, I made assertions and generalizations about the interviews (Creswell & Poth, 2018). This section explains the strategies to achieve cross-interview analysis.

Pattern-matching

During the pattern-matching stage of the cross-interview analysis, I identified patterns by clustering groups of codes and networks and identifying this pattern as meta-code in Deboose. This process followed the pattern-matching process as described and outlined by Creswell & Poth (2018). Patterns I found during the within-interview analysis were gathered and compared. The network views created in the coding phases allowed me to see patterns across interviews, moving towards generating new constructs. Pattern-matching across the interviews enabled the investigator to pick out similarities in each interview in preparation for interpretation and theme development.

Illustrative displays of data: Matrices

The use of illustrative matrices helped build upon the network displays' descriptive data during the within-case analysis. The matrices used in this process helped provide the framework for analysis necessary in the cross-interview examination. According to critical components, matrices are useful when exploring a new domain (Verdinelli & Scagnoli, 2013). Therefore, I categorized each response from the former dual-enrollment student along dimensional lines. This categorization was a more detailed form of the dimensionalizing that occurred earlier in the within-interview analysis. This work formed the basis for data displays presented in Chapters 4 and 5.

Thematic coding

After completion of the within-interview and cross-interview analysis, I stepped back. I created broad thematic codes that encompassed areas that transcended all individuals. The reason for doing so was to establish a base for an explanation that describes each of the individual participants, even though each interview will vary in specific details (Verdinelli & Scagnoli, 2013). This explanation included similarities and differences; assertions, and generalizations (Creswell & Poth, 2018). In addition to the themes being identified, this stage also allowed for me to engage in interpretation, explain implications, and make assertions about the data-driven themes as well as to connect coding and findings with the theoretical framework and research questions (Creswell & Poth, 2018; Verdinelli & Scagnoli, 2013).

Unique or Contradictory Coding

A qualitative researcher can establish codes and report affirmative and contradictory information (Saldana, 2013). After going through each transcript and exploring data in common and at the forefront of emerging themes, I once again went through the entire set of transcripts to code observations that do not fit or are contrary to emerging patterns. These unique or contradictory observations are reported after the emerging common themes to ensure honest reporting and avoid bias that can emerge from the convergence of findings.

Data analysis for the exploratory, descriptive, multiple-interview study consisted of within and cross-interview study examination and analysis. In this multiple-interview study, I conducted the within and cross-interview analyses consecutively. In both stages, analysis consisted of memoing, coding, pattern matching, and theme development. The data analysis procedures allowed me to thoroughly explore former dual enrollment students' perceptions of their post-secondary exploration related to their decision to further their education.

Design Issues

To ensure that a credible review and trustworthy qualitative study was conducted, I considered the issues of trustworthiness. Trustworthiness is significant throughout education studies, as results may directly influence numerous individuals (Merriam & Tisdell, 2009). As I was the primary instrument for this multiple-interview study, the findings' logic must be evident through data collection and analysis (Merriam & Tisdell, 2009). Throughout all phases, this study followed the procedures to ensure a trustworthy design. The following sections examine issues that contribute to trustworthiness: credibility and confirmability.

Credibility

In qualitative research, credibility refers to whether the research findings are consistent with the study's data (Merriam & Tisdell, 2009). This position differs significantly from a quantitative research design that requires replication or not to determine reliability. This qualitative study ensured credibility by using three techniques: revealing the investigator's position, triangulation, and peer examination.

Investigator's Position

I brought several assumptions to this research project. In my experiences, I have had the opportunity to attend a technical and trade high school to know first-hand the realities of professional education from a CTE secondary student's perspective. My high school classmates and I had a glimpse into the trade industries of electrical, drafting, machining, plumbing, carpentry, automotive, and general chemistry. An additional experience related to my past was my enrollment in two CTE post-secondary programs one year after earning a B.S. degree in Biology. This experience provided me a proper perspective of a post-secondary CTE student completing two health science certificates.

My socio-cultural identity has also played an integral role in developing my research assumptions. In my family, education is the avenue in which to achieve the American dream. As a first-generation college graduate in my family, I am the example for my family to excel in education. Like most families, having a doctor or lawyer in the family was prestigious. My family would highlight my accomplishments at every family reunion. In addition, I would speak to the younger generations each year through educational workshops. Little did my family know that my first employment and financial accomplishments occurred through my career and technical education training.

As a military spouse, I was able to find employment utilizing my health science certificates due to my technical skills training. Work on the military base was primarily in high tech, health science, retail, and fast food. With this history experience, I have a unique perspective of CTE training's value over having a bachelor's degree. This perspective shows how employment opportunities exist for CTE career certificate graduates. It is critical to identify these assumptions to identify any possibilities to distort the findings to fulfill previously held beliefs about the participants and contexts. I addressed these assumptions and biases through the strategies described in this section.

The first step is to identify any biases that exist. I must be mindful of bias that may exist because I have a personal connection to CTE. Creswell and Poth (2018) stated that qualitative researchers should include themselves in their study documentation to explain a self-understanding. By viewing the participants' multiple perspectives, I can better understand what I bring to the research through my experiences, values, and bias. I sought to reduce biases by implementing the following actions. First, I framed how data collection and analysis reduced preferences through an audit trail. Secondly, an awareness of the personal biases, worldviews,

values, and assumptions brought to the study. Third, I was open and honest about acknowledging divergence from the initial expectations. Finally, I kept reflective memos to track how the data may have challenged preliminary assumptions. I used these techniques to avoid biased interpretations that would significantly detract from the credibility of this study.

Triangulation

Regarding reliability, I was expected to obtain consistent responses within the survey instrument and the interview questions within qualitative research. Through data triangulation, I utilized multiple data sources to arrive at consistent responses; thus, establishing a reliable and diverse construction of realities (Golafshani, 2003).

Elements of triangulation utilized by the Study

According to Creswell & Poth (2018), corroborating evidence through triangulation involves multiple data sources, methods, investigators, and theories. The study achieved data triangulation by using eight different CTE dual-enrollment program students as interview sources. The study achieved theory triangulation by drawing from Hossler & Bontrager (2015) and explaining students' decisions in seeking post-secondary education. Methodically, this study employed a qualitative, exploratory, descriptive, interview research design that tapped elements of four different design structures. It also built strong descriptions of the participants' perception elements using within- and across-interview analysis. It employed open coding, pattern matching, concept networks, and data matrices.

There were three reasons for the utilization of triangulation in the study. First, triangulation permitted me to acquire thick and rich descriptions of students' perceptions of post-secondary exploration support using multiple data (Creswell & Poth, 2018). Individual interviews with the former CTE dual-enrollment students allowed me to probe deeply into the

participants' experiences and cross-check data from the interviews with Hossler & Bontrager's (2015) theory of student college selection, confirming findings. Secondly, triangulation data collection methods, I controlled for bias. I limited the effect of subjectivity that can frequently threaten the credibility of qualitative research. Lastly, this study's various triangulation forms enhance both the project's reliability and validity (Merriam & Tisdell, 2009). In conclusion, triangulation was useful for this study to increase thick and rich data, control bias, and enhance the project's validity and reliability.

Limitations of a triangulation research design

Triangulation has many strengths and is useful in research, as previously mentioned. However, there are limitations to triangulation in qualitative research. Validation strategies such as peer audits and external audits can be time-consuming and very expensive for the researcher. Also, not all data evidence will fit a pattern or a code, which may contradict the findings. The researcher must include these contradictions in their research as an ethical consideration (Creswell & Poth, 2018). Concerning limitations during the analysis and data presentation process, triangulation can contribute significantly to an interview research design study's credibility.

In summation, triangulation was a critical tool to implement to increase the findings' credibility for this study on investigating the perceptions of post-secondary exploration of former CTE dual enrollment students. The benefits of including triangulation in this research design make it an appropriate and accessible element of good research design by the sheer nature of its definition, types, and benefits derived from the triangulation process.

Peer examination

The researcher seeks colleagues or students to review and provide a debriefing of the data and research process, which is the basis for peer examination (Creswell & Poth, 2018). I was able to draw on peer examination from professionals within the field of Career and Technical Education (CTE). Finally, I recruited professionals to comment on the study's findings. Each individual has terminal degrees and has conducted previous research. The Associate Superintendent of CTE, who represents the K-12 district, gave me insight into the global relevance of CTE. The Senior Director of one of the regional campuses provided insight into the campus-level systems that support dual enrollment. Lastly, the Assistant Director of one of the regional campuses provided insight into student interaction with Student Services and articulation protocols that help student transferability to the state college. I consulted with them throughout the design and analysis of the project.

Member Checks

Participants in the research shared the findings and tentative interpretation of the study by providing their views on the data's credibility. I presented the participants with their interview transcripts. All interviewing participants acknowledged receipt of their interview transcripts. Each member was permitted to read the interview transcript to check for accuracy. The member check process ensured internal validity (Creswell & Poth, 2018).

Three validation strategies assisted in supporting the credibility and confirmability of this study. Pronouncing my position, background, and assumptions allowed subjectivity to be easily recognizable in the research and therefore minimized as necessary and feasible. Next, triangulation strengthens this study's credibility by allowing for a thick description of how each participants' perception of support controlled for biases and limited subjectivity. Lastly, the use

of peer examiners contributed to the strength of credibility. As such, I was utilizing these strategies to strengthen the study results' trustworthiness, which enhanced the study's credibility.

Confirmability

Confirmability establishes the value of data collection in the eyes of the naturalistic researcher. The researcher also seeks dependability that the data results will be subject to change and instability (Merriam & Tisdell, 2009; Creswell & Poth, 2018). Due to this qualitative research design's subjective nature, this study utilized four strategies to support the dependability of this research study: member checks, peer examination, identification of researcher bias, and triangulation. In this section, a discussion of the audit trail supports confirmability.

I used documentation of the thinking process in the audit trails. This process clarifies understanding of data over-time throughout the research process (Creswell & Poth, 2018). This study used an audit trail that consisted of chronological descriptions of decisions and procedures surrounding data collection and analysis. The audit trail consisted of the following:

- Raw interview transcripts, interview notes, memos, and documents
- Deboose software files, interview, and document summary forms, and researcher notes
- Process notes including participant selection criteria communications, validation criteria, and drafts of the study (Creswell & Poth, 2018)

The audit trail supported the verification of the findings, minimized the influence of researcher bias, and provided future researchers with an opportunity to build upon this study.

Through the implementation of several strategies, this study was able to ensure firm confirmability of the study. Such procedures included member checks, peer examination, identified researcher biases, and triangulation to ensure the study's trustworthiness. For the

credibility of this study's findings, I used these strategies to ensure that the study matched the reality of the context and individuals presented.

Human Participants and Ethical Considerations

In research, one must be proactive. Before conducting the study, one must give attention to ethical issues, begin a study, data collection and data analysis, and report, share, and store the data-Creswell (2014). In addition, as required by National Louis University Institutional Review Board (IRB), the researcher must build in the study mechanisms to protect the rights and privacy of all five of the human participants involved in the study. To ensure this action, I submitted and was approved to complete the study as a part of the IRB application process (Appendix F). Also, all participants signed consent forms granting permission to be involved in the study.

As the participants provided deep and rich descriptive data, the study offered complete anonymous identities. In addition, the informed consent forms communicated the anonymous protective measure for each participant.

Lastly, each participant was allowed to review all interview data (member check process) before the study as an additional ethical consideration. Participants had the opportunity to clarify any misinformation, misunderstandings, or misinterpretations that may have negatively impacted the study's human participants.

Conclusion

Obtaining and defining reliable data in research can result in findings that can significantly impact those in higher education and Career and Technical Education (CTE). This study implemented several safeguards to enhance trustworthiness and respect ethical considerations for the study's human participants. To ensure a credible study and the existence of confirmability, I identified biases, implements triangulation, constructed an audit trail, and

utilized member checks and peer examination. For ethical considerations, I followed the IRB protocol for research at National Louis University.

Chapter 4: Presentation of Data

Data Analysis and Findings

The purpose of this qualitative study was to examine the perceptions of post-secondary exploration support CTE dual-enrollment students encountered as they transitioned to further their education upon graduating from high school. For former CTE dual-enrollment students who chose to select their articulating two-year college or other institutions, this research helped us better understand their perceptions of those who impacted their college choice. In order to efficiently investigate the perceptions of support that guided the college choice process for these students, data were collected from surveys and interviews of former CTE dual-enrollment students at a local technical college in Central Florida.

The interviews contributed to a valuable discussion of the college choice process and how the students' perception of support impacted their college selection during this process. This chapter concentrate on the data analysis and findings, including the participants' demographic information; gathered through participants completing the online demographic survey. The chapter compiled the results that materialized by classifying the data into themes related to Hossler & Bontrager's (2015) College Choice Model. The three stages-predisposition, search, and choice are utilized to develop the themes associated with the study's findings. Based on the perceptions of support discussed by the participants, the subsections were created for the results.

Description of the Participants

The individuals participating in the study were all former secondary CTE dual-enrollment students at Orange Technical College. The participants completed high school in different years and currently attend or attended a myriad of post-secondary institutions. Table 1 shows each participant's gender, year of high school completion, parent education level, and institution

selected. The information about gender, high school completion year, parent education level, college selected was gathered in the demographic survey and in each interview.

Table 1

Participants' Information

| Part. | Gender | HS Attended | YR completed | Parent Education Attainment | College |
|-------|--------|-------------|--------------|-----------------------------|------------------------|
| A | Female | #2 | 2019 | HS Diploma/GED | Stetson University |
| B | Female | #3 | 2019 | Some college/no degree | Valencia College |
| C | Male | #1 | 2018 | Graduate Degree | Florida A&M University |
| D | Male | #1 | 2017 | HS Diploma/ GED | Sem. St. College/OTC |
| E | Female | #1 | 2018 | HS Diploma/GED | Valencia College/OTC |
| F | Male | #2 | 2020 | Some College/No Degree | Orange Tech Colleg |
| G | Female | #4 | 2013 | HS Diploma GED | OTC/Valencia College |
| H | Male | #5 | 2015 | Some college/no degree | OTC |

Note: Part. = Participants, Sem. St. College = Seminole State College, OTC = Orlando Technical College

Gender, High School Attended and Year Completed

For the study, there were four females and four males that represented the genders of the participants. As former CTE dual-enrollment students, the participants identified the high schools they attended during their first year in dual-enrollment. Five different high schools within the Central Florida region, across two districts, were identified. Table 2 shows the high school and their federal status for the 2018-2019 school year (available on the state reporting website). Four of the five high schools are located in Orange County, Florida. One high school is located in Highlands County, Florida. Five high schools are considered Title I schools due to their free and reduced lunch student percentage, allowing for additional funding for student support. Seven schools are considered Economically Disadvantaged based on their free, and the reduced lunch rate is more significant than sixty percent. Six schools have a minority rate

(reported as non-white) greater than 80%. Two schools have a minority rate of 48% and 53%, respectively.

Table 2

Participant Demographic Information-High School Information

| Participant | HS # | District | Title I School | Economically Disadvantaged (FRL) Rate | Minority Rate |
|-------------|------|-----------|----------------|---------------------------------------|---------------|
| A | 2 | Orange | No | 82% | 82% |
| B | 3 | Highlands | Yes | 64% | 48% |
| C | 1 | Orange | Yes | 97% | 99% |
| D | 1 | Orange | Yes | 97% | 99% |
| E | 1 | Orange | Yes | 97% | 99% |
| F | 2 | Orange | No | 82% | 82% |
| G | 4 | Orange | No | 48% | 53% |
| H | 5 | Orange | Yes | 96% | 89% |

For high school completion years, one female (12.5%) participant completed high school in 2013. One male (12.5%) participant completed high school in 2017, representing those out of high school for the most extended timeframe. Two participants, one female and one male (25%), completed high school in 2018, two females completed high school in 2019 (25%). One male (12.5%) completed high school in 2020. The participants represent those who had graduated from high school one to eight years ago.

Parent Education Level Attainment and Type of Institution Selected

The parent education attainment level and type of institution selected varied amongst the participants in the study. Table one shows a visual compilation of the parent education and the

type of institution chosen for each participant. Four participants' parents (50%) represented those who earned their high school diploma/GED as their highest level of education. The institutions selected for these four participants covered three different types of post-secondary institutions. One female participant chose a four-year in-state private institution (12.5%). The remaining three participants, one male and two females, selected a two-year state/community college (37.5%). The two females (25%) chose the articulating two-year state college. Thus, there were three participants (37.5%) whose parents had earned some college credits but no degree. Of those three participants, one female (12.5%) chose the in-state two-year articulating state/community college. Two males and one female (25%) decided to continue at the technical college after high school. Lastly, one male participant (12.5%) had parents to attain an education level of earning graduate degrees, which is considered a continuing generation student. This male participant (12.5%) chose to attend an in-state four-year public institution. Based on Table 1 information, the remaining seven participants are considered first-generation college students because neither parent has earned a bachelor's degree; although three participants had parents with some college credits (Pascarella et al., 2004; Skomsvold, 2015).

Perceptions of Support that Impact the College Choice Process

Perceptions of support themes were categorized utilizing Hossler and Gallagher's (1987) Three-Stage College Choice Model. The findings are organized by the sub-research topics of support received during each stage within the college choice model and the type of post-secondary institution selected. The themes that developed from data collection for every kind of college selected and within each college choice model stage is summarized in the visual display below:

Figure 2*Modified Conceptual Models*

**Modified Conceptual Model: Levels and Types of Support
through the Hossler & Gallagher's College Choice Model (1987)**

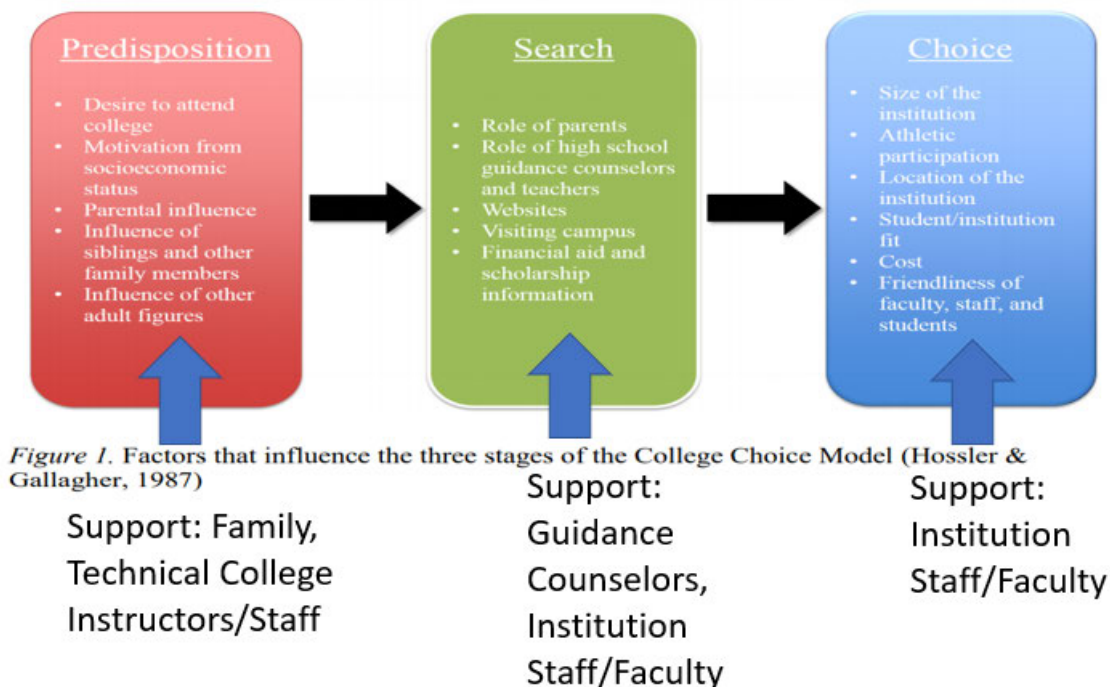


Figure 1. Factors that influence the three stages of the College Choice Model (Hossler & Gallagher, 1987)

Four-Year Institution Selected

College aspirations were developed when students go to college or take a military or workforce path regarding the predisposition stage. The first theme to arise was the support of family and friends. For the two participants who chose a four-year institution, the family was the main support source—each described family members as the rock and cheerleader of their aspirations. Participant A explained her mothers' support in her career interests. She said,

My mom had bought a sewing machine, but neither one of us knew how to work it. So, we were watching videos and self-teaching ourselves how to do it. So, when I learned about my

opportunities in joining the Fashion Technology program, my mom supported me. We continued to learn together; as a CTE dual-enrollment student at the technical college.

The second theme to arise was the support of K-12 staff members. The two participants attending four-year institutions stated that teachers and CTE staff members supported their desire to attend college by answering questions. Participant C explained his guidance counselor's support in bridging CTE with his goals. He said,

When I met with my guidance counselor and the CTE Career Specialist, I had so many questions. No doubt, I wanted to go to college since I started dual enrollment. But, every time I would meet with them, they were there to assist me. They took the time and cared.

The final theme to arise was the support of community organizations. Developing relationships with outside groups for the four-year institution participants proved to help them make their college decision. Participant C explained how a mentoring community service organization supported his decision to select a four-year public institution. He said,

The Kappa League mentoring group helped give me different viewpoints from those who attended other colleges. They exposed me to many things to help me better understand college life. Knowing that I wanted to go to college, the mentors helped me grow and be prepared mentally.

The search stage occurs when the student collects and reviews college information to learn more about the institutions in which they consider matriculation. The first theme to arise was support of K-12/technical college staff. For the four-year private institution, Participant A stated, having that single instructor support them was pivotal in their decision to go to college.

My lovely tech instructor was very close and involving. She helped me with getting information about scholarships. We would talk about different opportunities that were out there.

We would gather material about other schools because she had children in high school too, so, she was helping me and talking to me about additional resources. One college came to visit the CTE class at the technical college, but it was not what I wanted. I love fashion, but my instructor realized I was passionate about the business side of style and having a fashion company. So, in researching various schools, my instructor was more than happy to talk to me through some of the information. She was my instructor, but she was also my teacher, slash mentor.

The final theme to arise was the support of institution advisors/staff. For the four-year private institution, the interaction with the team/students during a campus visit helped answer her questions. She stated,

Something important to me was a school with both a business school and a law school. The information shared by the staff/students at Stetson University helped to answer my questions-they had two top majors that I was reasonably interested in and that I wanted to go into.

The choice stage of the model occurs when the student applies to multiple colleges and eventually enroll in the college. The first theme to arise was the support of K-12 staff. Participant C stated that teachers and the band director supported him more than once for the four-year public institution. He stated,

“One of my brothers attended Florida Agricultural and Mechanical University (FAMU) and also other family members, so I had heard about FAMU all my life. But being in high school and in the band made everything I had heard about FAMU so much more real. My band director was a graduate of FAMU and supported me my entire four years in the high school band. He answered so many questions and provided multiple opportunities to learn about FAMU. The

Marching 100 visited the Band room while I was in high school and gave the band members a hands-on, direct information session about FAMU. It was way more than I expected.”

The next theme to arise was the support of institution staff/services. Participant A stated that the staff and advisors at Stetson University supported her through their welcoming spirit for the four-year private institution. She stated,

“During a campus visit, I felt so welcomed with the Team being there. I spoke to different organizations present. Teachers spoke to potential students, and administrators spoke to us. It was like they had a whole team dedicated to ensuring that your Stetson experience is what it should be. It was the Team that I ended up joining once I did choose to commit to Stetson University because I felt so welcomed with that Team being there. Although I had visited many schools, it has never been that kind of interaction with me, I get to interact with students and professors.”

Two-Year Institution Selected

Aspiring to attend a post-secondary institution was crucial for the participants who chose a two-year institution, as evident in the support themes from family, friends, and school staff. Participant B stated her cousin supported her and has been an inspiration throughout her journey. She stated,

“I have followed my cousin go from Valencia College to the University of Central Florida. She has been there for me and answered lots of questions about school. She has seen me finish high school, and she wanted me to go to school too. I’m so proud to be following in her footsteps. She stays on me too.”

Another support theme for the two-year college participant is support from K-12 staff members. Participant D stated the help from his guidance counselor and the CTE Career Specialist gave him the push to even think about going to college. He stated,

“My high school pushed continuing education. My counselor said dual enrollment is free, so I didn’t have to pay for it. Once I got done with my program, I could build on top of what I already have. So, not only graduate with a high school diploma, but with a certificate too. So, that’s what pushed me to go further in education.”

In learning more about the college of their interests, the support theme for the two-year institution participants was support from K-12 staff. For example, participant E stated that talking to her high school teacher gave her additional help for her career aspirations. She stated, “I was talking to my teacher after the dual enrollment meeting. I knew I wanted to go into Nursing, but I wasn’t sure how. My teacher supported me by going to different school websites and walking me through the information-the length of the technical program and then the state college and its Nursing program. Throughout my senior year, I tried to narrow down which college I would go to after completing my Certified Nursing Assistant program at the technical college.”

The two-year college selection was ultimately decided on the support of K-12 staff and institution staff for each of the two-year institution participants. Participant D stated that the guidance counselor was instrumental in connecting him to a scholarship for the selected institution. He stated,

“Through my guidance counselor, I learned about a full two-year scholarship for Seminole State College. He even helped me to complete the paperwork. Even though I met with the Valencia TechExpress Advisor, I saw that the scholarship was going to pay for school up through my

Associate's degree, but I could only use it at Seminole State; so, I needed the scholarship. Valencia also had a waiting list for their Nursing program, and I didn't want to wait and lose money.”

Participant E stated her friends gave her excellent information about the college, but the guidance counselor supported her with scholarship information that helped her to make the choice to attend a two-year state college, as finances was a big factor. She stated, “when you're in high school, all your friends are just talking about different schools you go to. Valencia College was considered because it's so close to home already. If something doesn't go right or where something doesn't work out, I don't want to go to UCF and Valencia is cheaper too. Even if I didn't get the Bridge Scholarship, I feel like I would have probably still have gone to Valencia, price-wise.”

Technical College Selected

Three participants chose to attend the technical college upon graduating from high school. They were each supported by family members, technical college staff, and community members. Participant F stated parents and a church member supported his aspirations of being a Sound Engineer. He stated, “my mom knew I was interested in sound design, and the digital audio program was close to that interest. So the summer after graduating from high school, I worked at my church with the Sound Engineer in the music ministry. He taught me a lot, and I showed him what I learned in the Digital Audio program. He helped me to see continuing in the program was good for me.”

Participants G and H both stated remaining at the technical college as adults was a natural transition for their Early Childhood Education program. Participant G said the technical college instructors and internship facility workers supported her aspirations to become a Child Education Center Director. She stated, “when I went to the meeting for graduating seniors, I met with the

counselor, and she was just warm, bubbly and inviting, and it was instant, and remember the counselor being so welcoming and rich with information.”

Supporting students through the search phase of post-secondary institutions proved to be smooth for the three participants. Participant H stated the technical college admission counselor made me feel very comfortable. He stated, “my instructors explained things very well as I get confused easily. They took their time with me to help me transition to complete my program. I asked many questions when I met with the counselor, who shared a lot of information before starting the new semester.”

The final decision to attend the technical college became second nature for the three participants. Each participant stated, it was easy, natural, and a practical decision. Participant G said it is a smooth transition. She stated,

“The way it (dual-enrollment program) was previously structured, the school would pay for your basic testing to be in the profession. But if you wanted to further that opportunity, then you can come back. So basically, everything was set up for you to continue your education, and it was a smooth process. Honestly, I am a person that like to get into a program and get in and out. I was the source of income for my family, so joining the technical college gave me that opportunity to gain the experience and then go and apply it to my workforce and do all three.”

Cross-Interview Findings and Analysis

This section presents the cross-interview findings, comparisons, and analysis across the eight individual interviews. Similar to the personal interview sections, sub-research topics of support organize this section received (family, community, K-12 staff, and post-secondary institution staff) during each stage within the college choice model (predisposition, search,

choice) and the type of post-secondary institution selected (four-year institution, two-year institution, or technical college).

Perceptions of Support within the Three Stages of the College Choice Model

As a result of data collection and analysis, four themes were developed regarding support received by former CTE dual enrollment students in selecting post-secondary institutions. These four themes are support from family and friends, K-12 staff members, community members/groups, and college institution advisors/staff during each stage of the college choice model.

Support during the Predisposition Stage. The first set of themes to develop from the participants was the support of family/friends, K-12 staff, and community members. All interviews reiterated this support as the participants aspired to attend a post-secondary institution based on personal career interests that were encouraged as CTE dual-enrollment students. Table 3 highlights how each participant reflected on those who supported them as they pondered on the idea of continuing to further their education.

Table 3

Participants' Perception of Support during the Predisposition Stage

| Participant/Institution(s) | Quotes from former CTE students regarding support during Predisposition Stage |
|--|--|
| A-Stetson University-4-year university | I had an interest in sewing; my mom and I were hand sewing together. Through that, I joined CTE dual enrollment in Fashion Technology. "I have an interest, so why not go to school for it". |
| B-Valencia College-articulating 2-year college | I had an interest in Culinary, and I wanted to get a head start for my career. My cousin was there for me from day one. "I'm following in the footsteps of my cousin, she's at UCF now, but she started at Valencia College. So I have been watching her since high school." |
| C-Florida A& M University-4year university | "My brother went to the same technical college that I went to...he discussed the competitions he got to go to, and I see where he was at and where he's at now. So, it kind of shows like, okay, it was |

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| | working”. I was interested in 3D Animation because I like hands-on learning. |
| D-Seminole State College-non-articulating 2-year college and Technical College | The Guidance Counselor and CTE Career Specialists at my high school motivated and supported me to go further. Likewise, my technical college teachers would support me, “even when I would call-they would pick up the phone...the entire campus would help me.” |
| E-Valencia College-articulating 2-year college and Technical College | I was interested in Nursing; my teacher in high school supported my aspirations and started me on my way to CTE dual enrollment. “I wanted to get a head start on my career.” |
| F-Technical College | I was interested in music, and my mother supported my aspirations. I attended a dual enrollment meeting at school and later told my mother about it, and she was there for me to go for it. “It was free and about sound design...okay why not”. |
| G-Technical College and Valencia College-articulating 2-year college | My College and Career instructor in high school supported my interests in pursuing a profession in Early Childhood Education. “The dual-enrollment meeting piqued my interest; then I just had to pursue it.” |
| H-Technical College | I received information about dual enrollment in my Career Class in high school. I learned about different careers, and I knew education was the field for me. The teacher had a guest come from the technical college, and I asked a lot of questions. “I liked that it was the course I wanted to have-Early Childhood; it was teaching.” |

Support during the Search Stage. The following themes to develop from the participants was the support of K-12 staff and institutional staff/faculty. In addition, the participants conducted reviews of college material and attended college tours to learn more about different post-secondary institutions. Table 4 highlights how each participant reflected on those who supported them as they researched different educational facilities.

Table 4

Participants’ Perceptions of Support during the Search Stage

| Participant/Institution(s) | Quotes from former CTE students regarding support during Search Stage |
|----------------------------|---|
| A-Stetson University | At the end of technical college, I became interested in the business side of Fashion Technology. My |

| | |
|--|--|
| | instructor provided college brochures, we viewed websites and even had a college visit there at the technical college. "She gave me that extra push." I continued to research other schools and visit colleges too. |
| B-Valencia College | I focused on continuing in Culinary. I attended the meeting with the TechExpress Advisor for Valencia College and was provided with a lot of information. My cousin gave me additional information about the school, courses, and completing paperwork. My guidance counselors at school helped me to look over material for many different schools. |
| C-Florida A& M University | My guidance counselor stayed with me and gave me a lot of information-scholarships and financial aid about colleges. My band director had the Marching 100 visit my high school. I visited several colleges to help me get more information. |
| D-Seminole State College/Technical College | I visited my guidance counselor many times during my senior year in high school. He made sure I had my grades and the suitable courses to ensure I was on track to graduate. We looked over many college brochures and applied for scholarships. |
| E-Valencia College/Technical College | My high school teacher went over college websites. I went to my guidance counselor, and we looked up different schools and scholarships. "We had a college fair on campus, and I was able to talk to the Valencia rep about more information and scholarships." |
| F-Technical College | My technical college instructor supported me in continuing on as an adult through college reps coming to our class. We had the TechExpress Advisor from Valencia College come to our class to talk about articulating credits. "The support was always there from the technical college staff." |
| G-Technical College/Valencia College | All the technical college instructors gave me support in continuing to a technical college to complete the program. "The admissions staff was so helpful." |
| H-Technical College | My technical college instructors gave me one-on-one support to transition to completing the Early Childhood program as an adult. |

Support during the Choice Stage. The participants' following themes were the same as support received during the Search Stage, which was the support of K-12 staff and institutional staff/faculty. The participants were asked at what point did they know this was the institution for them. All participants were excited about responding to the support they received in the final stage

of selecting the college of their dreams. Table 5 highlights each participant reflected on those who supported and the significant factors that led them to their decision.

Table 5

Participants' Perceptions of Support During the Choice Stage

| Participant/Institution(s) | Quotes from former CTE students regarding support during Choice Stage |
|--------------------------------------|--|
| A-Stetson University | My technical college CTE instructor and the staff of Stetson University ultimately led me to select the school. "...it had my two majors, it was close to home, and the interaction during the campus visit was so real" |
| B-Valencia College | The Valencia College advisor helped me some...but I chose the school really on my own because "I wanted to follow in the footsteps of my cousin...it was close and cheaper than the four-year colleges that I applied to". |
| C-Florida A& M University | "The Spring Preview was the deciding factor for me to attend FAMU. The orientation leaders, when they actually showed the school, they had a passion behind it. Then especially the Marching One Hundred...I heard them play and right there, everything just connected the dots". |
| D-Seminole State College | My guidance counselor helped me with applying for scholarships. "It was the money for me to attend Seminole State College and then you could transfer to UCF, they had the same option as Valencia-Direct Connect to UCF". |
| E-Valencia College/Technical College | My guidance counselor at my high school helped me with scholarship applications and my friends talking about the school were the deciding factor for me to attend Valencia College. "The scholarship included volunteer hours, so I worked in a hospital and learned more about nursing, so that made it better for me to stay focused on my future career". Coming back to the technical college was easy because of the cost and the Nursing waitlist at Valencia College. |
| F-Technical College | My technical college instructor made everything understandable. "Knowing I was going to have the same instructor helped me to make the decision to stay to complete the Digital Audio Production program" |
| G-Technical College/Valencia College | My technical college instructors kept me motivated and "I wanted to complete both my DCF hours and my CDA program. It (the technical college) was the next step in my |

| | |
|---------------------|---|
| | educational experience. There were a lot of connections between the technical college instructors and my Valencia College instructors, it was a smooth transition to continue, get the articulating credits and the cost was also a factor”, |
| H-Technical College | I wanted to complete my CTE program, so I chose to come back as an adult and complete Early Childhood Education at the technical college and get my certifications to work. “It was accessibility and cost. So, my plan was to go to Valencia College, but between finding a job and everything I had to like put that on hold. So, my goal is to eventually go to Valencia College to finish my degree in it”. |

Summary

In this chapter, the findings of perceptions of support were discussed within the frame of Hossler & Gallagher’s (1997) three-stage college choice model. As participants aspired to go to college after high school in the predisposition stage, most were supported by family and friends, K-12 staff, and community members. Most participants discussed how family members were the very reason they aspired to go to college. Participants also started hearing from friends about their college experience supported them in their goals to attend college. The encouraging atmosphere of the high school guidance team was instrumental in supporting all of the participants. Teachers at both the high school and technical college motivated some participants even to consider going to college. Finally, a few participants discussed how community members supported their efforts in going to college.

In the search stage, as the participants navigated through the myriad of college material, all stated the K-12 staff members were by their side in viewing websites, college brochures, and attending college fairs. Some participants developed mentoring relationships with their guidance counselors or technical college instructors. The institutions had such welcoming staff members, as most participants described when they visited the campus or received program information

about the institution. Some participants had multiple meetings with institutional staff and faculty members, and they felt their questions and inquiries were respected.

In the choice stage, many participants had a lightbulb moment and knew this was the college for them. The four-year institution participants stated the college visit was the deciding moment. The two-year institution participants noted the support from the guidance counselor regarding scholarships was the deciding moment for them. Finally, three technical college participants stated that the relationship between the K-12 staff made it a practical and logical decision to attend the technical college upon high school graduation to complete their CTE program.

Chapter 5: Conclusion

This chapter summarizes the findings and explains the study's conclusions' meaning, importance, and significance. It begins with the purpose of the study. Following this, responses to the research questions that guided this research study will be discussed. Next, practical and theory-based implications which integrate this study's findings with previous research will be critically analyzed for gaps or similarities. In addition, the limitations of the study will be discussed. Finally, the chapter concludes with recommendations for future research based on the findings.

Purpose of Study

The purpose of this study was to investigate the perceptions of support of former CTE dual-enrollment students as they made decisions to transition to post-secondary institutions. This study was performed with eight former CTE dual-enrollment students who attended one technical college with an articulation agreement with a two-year state college. An explorative, descriptive, multiple interview design was utilized. Analysis was conducted through the conceptual framework of the three-stage college choice model-predisposition, search, and choice (Hossler & Bontrager, 2015). They emerged from the perceptions of support from family, friends, college students, community members, K-12 staff members, post-secondary institution representatives, and staff members as the students decided to attend a particular higher institution of learning.

Response to Research Questions

This section will relate the findings and analysis to the original research questions that guided this study. This study's design included two main overarching questions- Why does a technical college dual-enrollment student decide to follow the articulating two-year college or a

different institution? Furthermore, what are the perceptions of support of former CTE dual-enrollment students on post-secondary exploration while attending technical college? And the four subquestions:

1. How do students perceive they are being supported during high school, for post-secondary exploration as CTE dual enrollment students?
2. How do students perceive they are being supported as CTE dual enrollment students who transition to the articulating institution?
3. How do students perceive they are being supported as CTE dual enrollment students who transition to a non-articulating two-year institution?
4. How do students perceive they are being supported as CTE dual enrollment students who transition to a non-articulating four-year institution?

This chapter provides summaries of the eight former CTE dual-enrollment students responses to each of the research sub-questions. In addition, Table 6 provides a visual summation of the findings from the study.

Table 6

Research Sub questions and Findings

| Research Subquestions | Finding |
|--|--|
| 1. How do students perceive they are being supported during high school, for post-secondary exploration as CTE dual enrollment students? | Personal interests supported by family, friends, teachers, (R) College info provided by HS Guidance, teacher (R) Post-secondary staff (R) More college exploration, curriculum/guidance needed in MS/HS (R) Upon graduation, all students enrolled in the post-secondary institution (R) |
| 2. How do students perceive they are being supported as CTE dual-enrollment students who transition to the articulating institution? | Support of family and friends (R) College info and scholarship and teachers (R) Utilized TechExpress, Advisor from an institution (M) Articulating credits a Factor (M) Aspire to transfer to a 4-year college, UCF (R) |

| | |
|--|---|
| 3. How do students perceive they are being supported as CTE dual-enrollment students who transition to a non-articulating two-year institution? | Support of HS Guidance mentor (R) College Scholarship info HS Guidance full-ride (R) Minimal support of institution staff-financial literacy and credits (R) Had to be independent and navigate college life (R) Transitioned back to tech college through the support of family (R) Aspire to transfer to articulating 2-year state college (R) |
| 4. How do students perceive they are being supported as CTE dual-enrollment students who transition to a non-articulating four-year institution? | Support of family members (R) Support of older college friends (R) College info provided by HS Guidance (primary focus), family groups/mentors, campus visit (R) Warm and welcoming institutional staff/student-financial aid, included scholarships and loans (R) Despite receiving loans, students were supported through staff (R) |

Note: Findings are noted as Q(1) R=Robust (all eight former CTE dual-enrollment students provided support for the finding in their interview), S=Strong (five, six, or seven of the eight provided support), and M=Moderate (four of the eight provided support). Q(2) R=Robust (all three 2-year articulating institution participants provided support for the finding in their interview), S=Strong (two participants provided support for the findings in their interview). Q(3) R=Robust (the one participant who selected a 2-year non-articulating institution participant provided support for the finding in their interview). Q(4) R=Robust (both participants that selected a 4-year institution provided support for the finding in their interview).

Subquestion 1: Support as Dual-Enrollment Students. The first sub-question of this study was “How do students perceive they are being supported during high school for post-secondary exploration as CTE dual enrollment students?” All participants stated they had a personal career interest supported by family members and their CTE dual-enrollment curriculum. Participants were involved in 3D Animation, Culinary Arts, Digital Audio Production, Early Childhood Education, Emergency Medical Technician, Fashion Technology, and Patient Care Assisting. Four participants stated they wanted to get a “jump-start” on their careers, and they utilized CTE dual enrollment to make that happen. Harnish & Lynch's (2005) research supports this finding. They found dual enrollment meets multiple needs and allows students to further their education or go into the workforce.

Studies show that parental/family support is a significant component of a students' college selection (Cabera & LaNasa, 2000; Hossler et al., 1999; McDonough et al., 1998). A

second theme to arise is all participants stated their high school staff guidance counselors and teachers were the critical provider of college information. Three participants noted the guidance counselors pushed the 4-year college more than any other type of post-secondary institution. Three participants stated the technical college staff and TechExpress Advisor provided college information pertinent to their CTE programs. Tierney, 2002 study found minority students and students of color rely on the direct support of guidance counselors and teachers. Another theme from four participants was the need to increase career exploration curriculum at the middle school level. As a result, students would be better prepared for high school and know what they want to do before college. Participants stated students should be aware of CTE while in middle school to prepare them for dual enrollment when they get to high school. Most participants stated middle school guidance counselors should be involved with classroom teachers in preparing students for the real world and the workplace, not just college credits. Smith, 2008 study found parents could benefit from assistance with understanding the advantages of college for their students. As such, higher education and K-12 personnel must develop a partnership and create interventions that support students early. The last theme to arise was all eight participants enrolled in a post-secondary institution immediately graduating from high school. This supports recent studies which found CTE dual enrollment students are more likely to enroll in college right after high school (NRCCTE, 2007; Phelps & Chen, 2016; Speroni, 2000).

Subquestion 2: Support for 2-year Articulating college students. The second subquestion of this study was “How do students perceive they are being supported as CTE dual enrollment students who transition to the articulating institution?” The first theme to arise from both 2-year articulating college participants was the superb level of support from their guidance

counselor. Both participants stated the counselor provided them most information regarding college types, financial aid, scholarships, and program offerings.

The next theme to arise was the level of support from the TechExpress Advisor. The participants both stated, they received information about articulating to the 2-year state college from their meeting with the TechExpress Advisor. The students met the Valencia College representative at the beginning of the CTE dual-enrollment program and intermittently in their CTE classroom during class visits. Their high school guidance counselor also provided general information about the college throughout their years in high school. Surprisingly, neither took advantage of the transfer articulating credit opportunity. This finding contradicts research, which found CTE dual-enrollment students transfer earned college credits and attend college at a higher incidence than non-participating dual-enrollment students (Chumbley, 2015; Cowan & Goldhaber, 2013; Fink et al., 2017).

Lastly, with the support of the DirectConnect Advisor at the two-year college, both participants aspire to transfer to UCF for their articulating credits to obtain their bachelors' degree. Both participants stated visiting with the UCF advisors located on the state college campus helped them to stay focused and on track to transfer to the 4-year college. One participant completed her general studies associate degree and returned to the technical college to complete the Nursing program due to the waiting list at the articulating two-year college. She will utilize her associate degree to DirectConnect to UCF. Recent research supports this finding of students transferring from the community college to the articulating 4-year college. Research findings include students benefitting from college readiness, college retention, completing sooner, and less debt (Acai & Newton, 2015; Estacion et al., 2011; Patton 2017).

Subquestion 3: Support for Non-articulating 2-year college. The third sub question of this study was “How do students perceive they are being supported as CTE dual enrollment students who transition to a non-articulating two-year institution?” The first theme to arise aligns with the other participants, the tremendous support of the guidance counselor. The guidance counselor was more like a mentor and built a relationship with the participant through all four high school years. The counselor was instrumental in helping the student obtain a full scholarship to the 2-year institution.

The second theme to arise was the minimal level of support from the institutional staff was minimal. The student felt alone and had to self-navigate through college life. Due to a lack of financial literacy and its relationship to non-credit classes, the participant stated he was unable to remain at the institution. The participant noted the staff didn’t inform him of the importance of developing a proper schedule and tracking appropriate credits. The participant stated he was not supported like he was in high school; as the first one in his family to attend college, he wasn’t knowledgeable of navigating college life.

Research shows that intentional support of first-generation college students from post-secondary institution staff and faculty members could decrease attrition rates (Farrell, 2009; Patton, 2007; Graham, 2013; Thomas et al., 2002; York & Thomas, 2003). The final theme was the importance of continuing his education and decision by transferring back to the technical college. As a former CTE dual-enrollment student, the participant was motivated to complete his education, and making this change was his next step. Research shows once in college, CTE students aspire to continue their education to complete their degree (Phelps & Chang, 2016; NRCCTE, 2007).

Subquestion 4: Support for Non-articulating 4-year College. The fourth subquestion of this study was “How do students perceive they are being supported as CTE dual enrollment students who transition to a non-articulating four-year institution?” The first theme to arise for the two participants who attended a non-articulating 4-year college was the level of support of family members. Both participants stated family supported them throughout the college choice stage, which align with the other participants' findings (Cabera & LaNasa, 2000; Hossler et al., 1999; McDonough et al., 1998). Family support was one of the main reasons they chose the 4-year college. One participant stated multiple family members indoctrinated him into hearing about Florida A& M University his entire life. One parent attended UCF, and the other parent attended Florida A & M University.

Research findings states continuing generation college students (those with at least one parent having a four-year degree) receive relevant information regarding navigating through higher education (Swartz, 1997). Although the second participants’ parents did not attend college, she stated her mom was her foundation. She wanted to be close to home to help take care of her. Another theme was the sheer amount of support both participants received from their high school counselors and technical college instructors. Both participants stated that going to their guidance counselors and instructors weekly to research different colleges and scholarships played a major role in their decision.

This finding is supported by Tierney, 2002 which found other adults-guidance counselors and teachers are a significant contributor to helping secondary students with college information. Both participants stated, despite meeting with the TechExpress Advisor for the 2-year articulating college, the eagerness and support of learning about the 4-year colleges swayed them in their decision. The last theme to arise was the support of the 4-year institution staff, faculty,

and students. Both participants were in awe at their campus visit and the warmth they felt was overwhelming. Although both participants visited, accepted, and received partial to full scholarships to multiple 4-year college campuses, it was something unique that made them select their institution.

One participant stated hearing the Marching 100 for the first time let him know “this is the place for me.” Recent studies found factors that contribute to student retention: institutions having a friendly and supportive climate, an institution focusing on support before and during the first year, and management of student transitions (Tinto, 1993; Yorke & Londen, 2008; Yorke & Thomas, 2003). The other participant stated she felt as though they (the institution staff/students) were speaking only to her. However, the institutional team catered to her every need, answered all questions, and made her feel unique. The participant also noted that the staff and students made her feel like she was already an integral part of the campus as an African American student.

Emerging Themes. Two emerging themes were presented through the interview process that was not directly related to the interview questions. Table 7 shows a visual compilation of the emerging themes presented in the study.

Table 7*Emerging Themes Revealed through Participants' Reflective Insight*

| Participant/college choice | Support Build Relationships | Support Motivates College Completion |
|-----------------------------------|---|--|
| A-4yr college (private) | “My technical college instructor was my “teacher-buddy.” She helped with college research, applications, and I could talk to her about everything. We would talk in the evenings and on the weekend. I still stay in touch with her today. Her support was invaluable. I have had my advisor all four years, and she was also one of my professors-our relationships have given me the confidence to do my best.” | “Because of all the support I had from my professors and institutional advisor, I now aspire to finish with a double major in Business and Pre-Law. They made me believe in myself and supported me every step of the way. In addition, my advisor makes me want to achieve all my goals.” |
| B-2yr Articulating college | “I don’t think I would have gone to college if not for the support of my guidance counselor. I could talk to her every day. She was more than just a counselor; she was my friend.” | “My cousin has been there every step of the way. I have watched her go through Valencia and UCF. I want to be just like her and follow in her footsteps. It's hard but I know I can do it. She has told me what classes to take, which professor to select, and to keep up with my financial aid.” |
| C-4yr college (public) | “My band director was always there for me. Yes, he taught us music, but he also taught us about going to college to better our lives”. We spent so much time together-day, night, weekends-I feel like he was my dad-discipline and all. My Kapp League mentor would say some of the same things as my band director. It was like I had two mentors.” | “Being in technical college and making decisions early made me mature fast. Then, going through several institution advisors, I realized I had to do this college thing independently. My mentors help me to stay focus as I make sure I graduate.” |

| | | |
|--|--|---|
| D-2yr Non-articulating college/Technical College | <p>“If it weren’t for my guidance counselor, I would not be in college. He stayed on me and rode me hard...I guess he wanted to make sure I would go to college. He was my mentor and father figure. I could talk to him about everything...he made time for me.” As a result, my current technical college instructors believe in me. They have become like my family-they have seen me through a lot.”</p> | <p>“Going through technical college and not completing. Then going on to the state college, only to leave because I was immature...coming back to the technical college has helped me to realize I need to be more focused. My technical college instructors have supported my aspirations of going on to Valencia and complete my AA. I know I can do this.”</p> |
| E-2yr Articulating state college/Technical College | <p>“My HS counselor and teacher both became my “go-to” people for all things college-related. I spent long hours with them. I would even miss lunch and come after school to meet with them. I would not have gotten my scholarship without their support.”</p> | <p>“...I matured through my relationships with my technical college instructors and the scholarship program advisors. I became more confident in my abilities. I wanted to make them proud and finish my General Education AA and go back for Nursing at the technical college.”</p> |
| F-Technical College | <p>“...my technical college instructor is my friend...I’m pretty shy...but he was so cool...he would spend so much time with me in one-on-one support every day. He would even call and email to make sure I understood the projects. He made everything so easy by connecting what we learned to working in the music industry...I want to have my own business...”</p> | <p>“ I have come out of my shell...yeah..it’s funny...working on sound engineering with my Church Mentor has made me want to complete my program and go on to get all my certifications and my AA at Valencia College.”</p> |
| G-Technical College/2-yr Articulating college | <p>“The time spent with my technical college instructors was so valuable. Everything fell in place each year-we built a strong relationship; it was obvious that Valencia was so practical for my family and me...I was the primary income for my family.”</p> | <p>“Although I looked at other schools, Valencia was such a smooth transition for the program and the credits...”</p> |

| | | |
|---------------------|--|---|
| H-Technical College | “My teachers were patient with me and supportive; the program alignment made it smooth to finish...” | “The program prepared me for where I am today...I make good pay; I’m motivated to continue on to Valencia.” |
|---------------------|--|---|

The first emerging theme was the relationships between guidance counselors, high school, and technical college instructors who were seen as mentors, teacher buddies, or friends. All participants stated a guidance counselor or teacher supported them every step of the way. Six of the eight participants described their guidance counselors as mentors, buddies, and father figures. Most participants described spending hours with their guidance counselor or technical college instructor throughout the week. This theme is supported by Tierney, 2002 which states other adults in the secondary school system are the primary motivators during the college choice process. The second theme to emerge was the participants all aspire to complete their CTE programs and seek advanced degrees. This contradicts recent research that states first-generation students aspire to attend college later than their continual generational peers (Paulsen, 1990; Saenz et al., 2007). All eight former CTE dual enrollment students were inspired and intrinsically motivated to continue college after high school to improve their lives.

Three of the six participants stated it only made sense for them to continue to the technical college once they graduated from high school to complete their CTE programs as adults; because the careers didn’t require a four-year degree, and they could go directly to work. Recent studies showed CTE dual enrollment students enroll in their target CTE programs as adults. Those who complete their CTE programs have a higher incidence of working full-time in their fields (NRCCTE, 2007; Phelps & Chan, 2016). Lastly, five of the eight participants stated they aspire to utilize the DirectConnect by completing Valencia College and then transfer to UCF (Fink et al., 2017; Piontek et al., 2016). The participants stated they want to finish what

they have started and continue on to a bachelors' degree. This finding supports O'Meara, Hall, & Carmichael (n.d.). Students earning articulating college credits have improved access to college completion. The participants are looking to increase their earning potential for their selected CTE career pathway. As one participant stated, I want to follow my cousins' example who obtained her master's degree from UCF.

Findings Related to Literature

The research conducted throughout this study assisted in further insight into the perceptions of support in the college choice process for former CTE dual-enrollment students. The findings facilitated the researchers' grasp of the support levels received during the college choice process based on Hossler and Gallagher's (1987) Model of College Choice. The thematic structures of support were reviewed within each stage of the college choice model. A review of literature and empirical research on support systems on the college choice process concluded that a myriad of thematic themes of previous research and literature coincides with the college choice process for former CTE dual-enrolled students.

Based on the findings of the research, three overarching themes were concluded. First, secondary CTE dual-enrollment program involvement allowed all the participants to get a head start on their career interests and the college experience. The participants revealed they each had a personal interest in specific careers and dual enrollment was a way to get involved while still in high school. Second, research shows dual-enrollment numbers are increasing; students are earning college credits and receiving job-skill training for careers that do not require a four-year degree (Chumbly, 2015; Mosser, 2010). Third, some of the participants worked part-time while in high school to contribute to their families financially. They stated getting a head-start on college would help them even more since dual-enrollment training was free as a secondary

student. Finally, research shows technical colleges are less expensive than two-year and four-year colleges. Those who attend a four-year college are usually strapped with debt. The job market is soft upon graduating (Moore, 2015).

All the participants stated that having their family members' support validated their interests and inspired them to move forward. Seven of the eight participants were seen as first-generation college students, and three of those participants had parents with varying levels of college education (Pascarella et al., 2004). These participants wanted something better for themselves, as the support of their parents and family members was evident. Research shows that our society sees a college education to improve social status and financial earning capability (Bui, 2002; Engle, 2007; McDonough, 1997). The research and findings from this study corroborates the participants' career-training interests in technical college and aspiration to get a jump start on working in their field.

The second overarching theme to arise was the level and type of support received as the participants progressed through the college choice process, related to the participants being secondary CTE dual-enrollment students. Recent research shows many students decide to attend college after high school (Bryant & Nicholas, 2011; Messer, 2016). As a result, the students go through a lengthy process that includes preparing, applying, and enrolling in college (Chapman, 1981; Hossler, Braxton & Coppersmith, 1989; Hossler & Gallagher, 1987; Litten 1982). This study reviewed each participant's levels and types of support through each stage of Hossler & Gallagher's (1987) College Choice Model-predisposition, search, and choice.

In the predisposition stage, all participants stated that family and friends' support was pivotal in following their aspirations to attend college. All participants stated being a CTE dual-enrollment student gave them the foundation for college readiness and prepared them for real-

world situations. The support of the technical college staff and instructors supplanted their academic coursework with their career pathway. Recent research shows that CTE dual-enrollment supported college readiness, college access, and workforce skill levels for entry into employment (Chumbly, 2015; Harris & Lynch, 2005; Phelps & Chan, 2016). Regardless of their final decision, each participant stated knowing they had the support of family members and other adults-community members, high school counselors, and technical college staff/faculty, they knew they were being prepared for their future careers. The research and findings from this study validates for all participants, parental/family support and adults in the secondary/post-secondary levels are essential during the predisposition stage of the college choice model.

In the search stage, for each of the participants, the adults in the formal education setting provided the majority of support for them as they progressed through the college choice model. Research shows that first-generation college students are at a disadvantage and lack the resources to be competitive college applicants and need a supportive environment to navigate the college application process (Berger, 2000; Horn & Nunez, 2000; Smith, 2008; Terenzini, Cabrera & Bernal, 2001). All the participants stated the high school guidance counselor and technical college instructors provided unprecedented levels of support both during school, after school and on the weekends. Specifically, the seven first-generation students saw many of the counselors and technical college instructors as mentors or “teach-buddy”, as they progressed with college website searches, campus visits, scholarship, and financial aid information. The continuing generation college participant referred to his band director as a friend who was instrumental in setting up his college visit and supported his musical aspirations. Most participants stated the institutional staff and faculty provided exceptional levels of support during the college search stage. Research shows colleges must understand the unique need of the first-generation college

student to provide specific support for this population both in the college choice process and during their first year (Bergersen, 2009; Hurtado, Inkelsa, Briggs, & Rhee, 1997). Both four-year college participants stated the school climate and environment was welcoming and inviting, friendly staff, model classrooms, and positive college student interaction. Three of the two-year college participants stated the ease of applying, transfer of dual-enrollment credits (two participants), advisors visiting the high school weekly; and the offer of a full scholarship were seen as extra support for them as they navigated through the application process. The three technical college participants stated the help of the technical college instructors with the career pathway was essential in their seamless transition to complete their CTE program. The research and findings from this study substantiates for the first-generation college participants that support from adults in the formal education setting provided the essential foundation to navigate the college application process successfully.

In the final stage of Hossler & Gallagher's (1987) three stages College Choice Model, the choice stage, the level of support shifted to the high school and post-secondary institutional staff/faculty as participants were in a position to make their college decision. Research shows the role of the parent decrease as a source of information, but the encouragement of the parent does impact the decision (Bergerson, 2009; Cabrera & LaNasa, 2000). All participants stated the institutional instructors and staff members provided ample resources regarding the institution they selected. Yet, seven of the eight participants said their family financial situation significantly impacted their decision.

Research also shows students make a final college selection based on a variety of factors. Institutional characteristics include size, location, the institution's academic reputation, college major, institutional fit, and friendliness of faculty, staff, and students (DesJardins, Ahlburg &

McCall, 2006). Most participants stated the characteristics of size, location, and academic major, were the elements that impacted their decision.

Research shows cost, scholarships, and financial aid as major deciding factors in enrolling in a particular institution (Choy & Ottinger, 1998; Hossler, Schmidt, & Vesper, 1999; Terenzini, Cabrera, & Bernal, 2011). Five of the participants stated cost and finances played a major factor in their college choice decision. These participants said their families did not have the finances to pay for their education. Three of the five participants stated they worked part-time to help support their families. Going away to college would mean they would not be able to provide that additional support. As such, these three participants selected the tuition-waiver provided by the technical college to continue their CTE program and the two-year articulating college grants/scholarships to continue for the associate degree. Research shows a students' college matriculation is positively correlated with their family socioeconomic status (Cabrera & LaNasa, 2001; Toutkoushian & Curtis, 2005; Tucker, 2010). These five participants (D-H) represented first-generation college students whose family's annual income range from below poverty to mid-level incomes (see Table 8 below).

Table 8

Participants/Institution Selected and Annual Family Income Level

| Participant/Institution(s) | Annual Family Income Level |
|--------------------------------------|----------------------------|
| A-Stetson University | \$50,000-74,999 |
| B-Valencia College | \$75,000-\$99,999 |
| C-Florida A& M University | \$75,000-\$99,999 |
| D-Seminole State College | \$20,000-\$34,999 |
| E-Valencia College/Technical College | less than \$20,000 |
| F-Technical College | \$50,000-\$74,999 |
| G-Technical College/Valencia College | \$35,000-\$49,999 |
| H-Technical College | \$20,000-\$34,999 |

Although cost/finances were a major factor that influenced the college choice for many participants, Participant C with an upper-level income, stated his family had set aside a college savings plan for him and his siblings to prepare them for going to college; as such, cost was not a factor. Conversely, Participant A, with a mid-level family annual income, stood out, as she received multiple full scholarships offers due to being a high-academic achieving, first-generation college student. Research shows high achieving students are granted more higher education opportunities (Teranishi, Allen, & Solorzano, 2004). Also, Honor and AP students in accelerated programs have more access to college enrollment information (Hurtado, Inkelsa, Briggs, & Rhee, 1997). Participant A stated she received college information in the mail; her AP instructors shared college material in the classroom. Participant A received full merit scholarships to both in-state, out-of-state, public, and private universities. Although cost was a significant factor in her decision, she also looked at institutional characteristics-location, size, fit, institution reputation, major and college environment. Despite receiving full scholarships, Participant A was so moved by the staff/faculty/students; she selected Stetson University and the partial scholarship offered to her. The research and findings from this study validates the participants' need for financial support from the institution was valuable in their decision to attend their selected college.

Support Developed Relationships

The final overarching theme to prevail from the study was that due to the relationships built through their support systems, all the participants were motivated to persist in their post-secondary studies to either complete their associates' or bachelors' degrees. Some participants aspire to go on to advanced degrees in their career fields. Research shows CTE dual enrollment students have better educational outcomes than those who do not participate in dual enrollment (Britton,

Chelliah, Symns, & Campbell, 2019; Karp & Hughes, 2008). All participants stated their institutional instructors and advisors motivated something inside of themselves to have the confidence to continue their education. Both participants G and H stated the institutional staff made the transition process so smooth. Therefore, it was only practical to complete their CTE program and transfer to the articulating college. Despite the challenges of navigating through the first year of college, most participants stated they became mature and independent through their time as dual-enrollment students. This level of maturity laid the foundation for them to be successful and motivated as they progressed through college. When asked if they would make the same decision again, six of the eight participants stated the only factor that would have changed their minds was earning a full scholarship. Participants would not have changed their college selection other than the cost factor because they made it based on the CTE foundation laid in high school.

Limitations

There were several limitations to the study's research design that tempered the breadth of the analysis. First, the study was limited to former CTE dual-enrollment students' perception of college choice support at one of the five technical college campuses. Therefore, the one-campus focus limited the breadth. As such, these generalizations may not apply to the other four campuses of this one technical college or other technical colleges. Second, the students attended five of the twenty-one high schools within one district. Therefore, the number of high schools may be small in referencing the scope of support from K-12 adults. Third, the participants were no longer in the college choice process. They were already enrolled in their post-secondary institution or working in their careers. Finally, the participants were reflecting on their college choice decision through the questioning of the interview.

The study had several self-imposed boundaries by the researcher to delimit the scope of the study. First, the study was conducted on former students at one technical college. Consequently, the results cannot be generalized for all technical colleges. Second, the population was former secondary CTE dual-enrollment students from the technical college. Other students were excluded from the study. Third, the survey was voluntary. As a convenience sample, the researcher relied on the participants' willingness to participate. These three bounding factors diminished the breadth of the research and the utilization of the results.

Implications of Findings

This study was used to investigate the perceptions of support of former CTE dual-enrollment students during the college choice process. In the review of the findings, several implications of practice are discussed.

Implications for the Technical College and HS/MS Guidance Teams

All eight participants stated how their guidance counselors were more than just a guidance counselors. Each participant said their counselors spent a lot of time with them as they progressed through the college choice process. This speaks to literature that states guidance counselors are instrumental in providing college material and resources; spending time with students, and building relationships with students over several years (Harde, Sullivan, & Crowson, 2009; Horn & Nunez, 2000; Cabera & LaNasa, 2000; Hossler et al., 199; Paulsen, 1990). Technical college administrators could develop a system of practice to collaborate with district secondary guidance teams to increase their knowledge-base of the viability of CTE as a post-secondary option as students complete the CTE dual-enrollment program and continue in their career pathway. One critical implication is equipping guidance teams with evidence-based research regarding career pathways other than the four-year college, specifically for those

students currently enrolled in a CTE program. Many participants stated career exploration in middle school would help students be focused in high school and be on the right track for their career pathway in college.

Implications for Technical College and the Articulating 2-year College

All eight participants remembered meeting with the TechExpress advisor on several occasions while attending the technical college. The advisor presented articulation information upon their entry into dual-enrollment, provided classroom visits during their time as students, and met the students during their senior exit meeting. This is supported by literature that states institutions provide more influence and support during the search phase of the college choice process (Messer, 2016). Despite meeting with the participants at the technical college, only three students took advantage of the articulating credits. One important implication is building relationships with the dual-enrollment students before, during, and after their time in CTE. Meeting at the middle and high schools to showcase career pathways is the beginning of building the CTE dual-enrollment brand to promote career readiness and college access.

Implications for Non-Articulating 2-year and 4-year College

Some participants met with the guidance counselors. They would view college websites and attend college fairs to meet with representatives and current students. Some participants stated most colleges only spoke about transferring AP credits, IB, and academic dual enrollment credits. Many colleges did not have an articulation agreement with the technical college. They were unaware of CTE dual-enrollment career credentials and credits. This is supported by literature that states accelerated credits and academic dual enrollment credits are accepted in most two-year and four-year universities (Grubb, Scott, & Good, 2017; Karp & Hughes, 2008). One implication for CTE dual enrollment students is colleges are missing this valuable

population for recruitment. Dual-enrollment students are more likely to enroll, take less remediation classes, and persist to completion than non-dual enrolled students; due to their career-pathway connection with academics (Kempner & Warford, 2009).

Implications for College Curriculum and Enrollment Administrators

All participants stated they had a personal interest in a particular career. Once they became a CTE dual-enrollment student, their interest was now supported with a career pathway. As participants progressed through their CTE programs, they saw the relevancy of career pathways, and transitioning to a post-secondary institution to complete their pathway was now feasible. This college aspiration is supported by research that states with supportive systems of collaborations between post-secondary institutions, employers, and career pathways, students are more successful in persisting and graduating from college (Kempner & Warford, 2009). Unfortunately, many colleges do not have a focus on career pathways and college transition. As such, CTE dual-enrollment students may not choose to attend an institution with no curriculum or support systems to complete their career pathway. One critical implication for CTE dual enrollment students is that they require the necessary support systems to meet the career pathway curriculum; many are first-generation college student minorities and those from low socio-economic levels (Messer, 2016).

Recommendations

Recommendations for the Technical College and Secondary Schools

Technical colleges assist and support secondary dual enrollment students through the career pathway process. I recommend that the technical college collaborate with secondary school districts and develop a career exploration curriculum for middle school students to prepare them for careers and college. First, all the participants stated, if it were not for the career

support in CTE dual enrollment, they would not have known how careers and college were connected. Secondly, the collaboration between the technical college and the secondary schools will promote vertical alignment of middle school and high school curriculum to promote high school persistence and college readiness; as students continue with CTE dual-enrollment in high school and aspire to complete the career pathway to work and college.

Recommendations for College and Admissions Administrators

All participants stated the support they received from institutional staff and faculty was pivotal in their enrollment, retention, and persistence in their programs of study. Many participants did not have parental guidance during the college search stage as first-generation college students and required additional support. My recommendation is for college and admission administrators to review the literature and develop a liaison team to support CTE dual enrollment students, especially first-generation college students, with college visits, application support, articulation agreement development, or modification. This support system could be centered around the career pathways started at the technical college. Thus, the student transitions smoothly through each level of the path to completion. This liaison team could be integrated into the institutions' Student Development Services Office and seen as an integral component of student retention and persistence. Such services could include First-Year Advisor Team, parent financial aid/application night at the high school, college visits to the middle school during Career Night, and other events to promote a sense of belonging.

Recommendation for Future Research

The data from this study provided insight into the perceptions of support of former CTE dual-enrollment students at one technical college campus as they transitioned through the college choice process. Although the data opened the door to better understanding CTE dual enrollment

students and their transition to post-secondary options, more research could be considered in research design, methodology, and research topics. Research design and methodology recommendations include institutions, sample size, a comparative study, and mixed-methodology.

However, this study looked at former CTE dual-enrollment students from one campus. More insight could be gathered if research is conducted on students from all five campuses of the Central florida technical college studied or various technical colleges and community colleges involved in CTE dual-enrollment programs. This variety of institutions would support a variety of responses for institutional demographics and data collection.

More participants may have been willing to be a part of the project. Still, there were only eight participants due to time constraints, access, and a single researcher completing the data collection. Therefore, more participants should be interviewed to determine if their responses are similar or different from the first group in the study.

A comparative study should be conducted between the perceptions of support of CTE dual-enrollment students and other populations such as non-dual enrollment students, high-achieving students, and students of other accelerated credit programs. With students going through the college choice process, it would be essential to study themes and patterns that emerged in this study that holds for other students. Furthermore, it would be necessary to see if the levels of support played a role in the students' final college choice.

A mixed-method study on the impact of support systems on CTE dual-enrollment students, specifically first-year generation students, would benefit. In addition, a quantitative analysis that surveys all former CTE dual enrollment students would paint a broad picture of the impact of support related to college retention and persistence.

Chapter Summary

This study provided research on an important area of higher education perceptions of support of former CTE dual-enrollment students as they progress through the college choice process. With so many students going through the college choice process, it is essential to know how the level and types of support impact those decisions and the role of higher education administrators in assisting those who need the most help. This study also contributed to the literature that validates the relevance of CTE dual-enrollment on providing students with a career pathway to work and college readiness. A foundation was laid to the types of support required to assist students in making informed decisions and how institutional staff members were seen as instrumental in building relationships that support college retention and persistence. Although there were some limitations to the study, the adherence to the best qualitative research practices and triangulation minimized the effect of the restrictions. Although the sample size was small, the diversity of the population, demographic information, and levels of institutions selected by the participants added to the robust variety of data in the study.

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Appendices

Appendix A: Letter of Invitation

Appendix B: Email Confirming Decline of Participation

Appendix C: Letter of Confirmation

Appendix D: Informed Consent Form

Appendix E: Interview Guide

Appendix F: Interview Crosswalk Table

Appendix A: Letter of Invitation

Dear (Former Secondary CTE Dual Enrollment Student):

Did you have someone in your life who helped you to prepare for your post-secondary decision after completing high school? If so, then your post-secondary exploration story is vital to help others from the secondary and post-secondary sectors better prepare to make an informed decision regarding their post-secondary options.

The purpose of this letter is to invite you to participate in this study on the post-secondary students' perception of post-secondary exploration. My doctoral research is an exploratory study on the perception of post-secondary support on Career and Technical Education (CTE) dual enrollment students continuing their education upon graduating from high school. As you are aware, many students enroll in a two-year or four-year college right after high school. Some students make these decisions without knowing the complete CTE picture or the financial aspects of attending college. To date, very little is known about what impact of not having information about all post-secondary options have on secondary students and their decisions in enrolling in the institution of their choice.

Data will be collected through interviews with you. Documents such as the demographic survey on your education, family, and experience in dual enrollment will also be collected as background to the interviews. The total amount of time you will be asked to volunteer for this study is approximately 60-90 minutes for the interview and an additional 30 minutes to review the interview transcript for accuracy.

To confirm your interest in this study, please respond to this correspondence at your earliest convenience. I will also be following up with a telephone call within the next week to gauge your interest.

Thank you in advance for your consideration in this process. I look forward to potentially working with you in the months ahead.

Sincerely,

Robin H. Dakers Lynch, Doctoral Candidate
Higher Education Leadership Program
National College of Education
National Louis University

Appendix B: Email Confirming Decline of Participation

Dear (Former CTE Dual Enrollment Student):

Thank you for your recent communication regarding my invitation to participate in my dissertation project to investigate the perception of post-secondary exploration support on CTE dual enrollment students in making post-secondary selections.

While I understand you will not be able to participate in my study, please know I appreciate you taking the time to consider my request. I hope that the ultimate result of my project will be of benefit to secondary education and higher education student affairs.

Sincerely,

Robin H. Dakers Lynch, Doctoral Candidate
Higher Education Leadership Program
National College of Education
National Louis University

Appendix C: Letter of Confirmation

Dear (Former CTE Dual Enrollment Student),

Thank you for expressing interest in participating in my exploratory study on the perception of support of CTE dual enrollment students as they transition to further post-secondary studies. As you are aware, post-secondary exploration is paramount in assisting secondary students in preparing for the future careers. To date, very little is known about the impact of post-secondary exploration support through the perspective of former CTE dual enrollment students.

The purpose of this letter is to confirm your participation in this study on the perceptions of post-secondary exploration of former CTE dual enrollment students. Data will be collected through semi-structured interviews with you. In addition, documents pertaining to your educational pathways and career preparation (e.g. demographic survey) will also be analyzed.

The total amount of time you will be asked to volunteer for this study is approximately a total of two hours (interview plus time for your review of the transcript for accuracy). To confirm your participation in this study, please respond to this correspondence within 2 weeks. Your response can be emailed to _____ or sent via postal mail to _____

Please return your signed informed consent document either on your confirmation email or at the time of the interview. I am available to answer any questions you have regarding this entire process. Please feel free to be in touch with me at _____. I will also follow up within a week to expedite your participation in this study in any way.

Thank you in advance for your participation in this process and I look forward to beginning this study with you. I look forward to your reply.

Sincerely,

Robin H. Dakers (Lynch), Doctoral Candidate
Higher Education Leadership Program
National College of Education
National Louis University

Appendix D Informed Consent Form

My name is Robin Dakers Lynch, and I am a doctoral candidate at National Louis University. I am asking you to participate in this study, "Prestige vs. Practicality- Perceptions of Support: Transitions of CTE Dual-Enrollment Students to further Post-Secondary options-A Case Study," occurring from March 2021 to April 2021. The purpose of this study is to ascertain the reasons former CTE dual-enrollment students select a two-year or four-year post-secondary institution. This study will help researchers develop a deeper understanding of the college selection process and the perceptions of support that impact this unique population for college enrollment. This form outlines the study's purpose and provides a description of your involvement and rights as a participant.

By signing below, you are providing consent to participate in a research project conducted by Robin Dakers Lynch, doctoral candidate, at National Louis University, Chicago.

Please understand that the study's purpose is to explore the perceptions of post-secondary support while a CTE dual enrollment student. Participation in this study will take approximately 2 and 1/2 hours and include:

- An online demographic survey that will last up to 30 minutes: completed upon receipt of consent and confirmation to participate email from the researcher
- Individual interviews conducted via videoconference online at your convenience during March 2021
 - Individual interviews will last up to 90 minutes and include approximately 16 questions to understand how post-secondary exploration support impacted CTE dual-enrollment students' college selection.
 - Interviews will be conducted via recorded videoconferencing, and participants may review (up to 30-minutes) and have final approval on the content of interview transcripts

Your participation is voluntary and can be discontinued at any time without penalty or bias. The results of this study may be published or otherwise reported at conferences and employed to inform factors related to the perceptions of post-secondary exploration support at the local technical college. Still, participants' identities will in no way be revealed. Data will be reported anonymously and bear no identifiers that could connect data to individual participants. The researcher will secure recordings and transcripts in a locked cabinet in her home office to ensure confidentiality. Only myself, as the researcher, and my National Louis University advisor will have access to data. The material will be stored for six months and then destroyed.

There are no anticipated risks or benefits, no more significant than those encountered in daily life. Further, the information gained from this study could be beneficial to the local technical college and other post-secondary schools looking to initiate or refine articulation agreements to support college persistence and retention.

Upon request, you may receive summary results from this study and copies of any publications that may occur. Please email the researcher, Robin Dakers Lynch, a _____ to request results from this study.

If you have any concerns or questions before or during participation that have not been addressed by the researcher, you may contact Dr. Brian Hamluk, my research committee chair, at _____
 Dr. Nathaniel Cradit, my program director, at _____
 or the chair of NLU's Institutional Research Board: Dr. Shaunti Knauth, _____ The program director is located at National Louis University, 122 S. Michigan Ave, Chicago, IL.

Thank you for your consideration.

Consent: I understand that by signing below, I am agreeing to participate in this study. I am aware that I can drop out at any time, and my responses will remain anonymous. My participation will consist of the activities below during a one-month period:

- 1 Demographic Online Survey lasting approximately 30 minutes
- 1 Individual Interview lasting about 90 minutes

Name: _____ Date: _____
 (Participant)

Name: _____ Date: _____
 (Researcher)

Thank you!

Robin Dakers Lynch, Ed.S.

Appendix E Interview Guide

1. How did you find out about the technical college?
2. What factors ultimately led you to enroll in a CTE dual enrollment program?
3. Describe the interaction you had with the individual who informed you about the technical college.
4. Was your mind made up to attend another institution before learning about the TechExpress Advisor? Why or Why not?
5. How did you find out about the institution you selected?
6. What impact did the Advisor have on your decision to attend your selected institution?
7. What other factors, individuals or groups, outside of the technical college played a role in your decision to attend the articulating institution?
8. At what point did you realize the institution you chose was the one for you? Why was this the deciding moment for you?
9. Could anything have made you change your mind? What could have caused you to select another institution?
10. Describe your understanding of the purpose of the Academic Advisor at your institution?
11. How would you describe any connections/support between the technical college and the institution to which you transferred?
12. How would you describe your satisfaction level with the services provided by the Academic Advisor since enrolling at your institution?
13. Describe how you have been supported while being a student at your selected institution. Include support received during the COVID-19 pandemic.
14. Describe an academic advisor that meets the needs of all potential students.
15. Reflecting on your decision and knowing what you know now, would you make the same decision? Why or Why not? Explain.

Is there anything else you think I should know? Is there some aspect of academic advising or post-secondary planning that I didn't consider?

Appendix F Interview Protocol Crosswalk Table

| Interview Question | Research Question Addressed | | | |
|--|-----------------------------|----|----|----|
| | #1 | #2 | #3 | #4 |
| How did you find out about the technical college? | X | | | |
| What factors ultimately led you to enroll in a CTE dual enrollment program? | X | | | |
| Describe the interaction you had with the individual(s) who informed you about the technical college. | X | | | |
| Was your mind made up to attend another institution prior to learning about the TechExpress Advisor? Why or Why not? | X | | X | X |
| How did you find out about the institution you selected? | X | | X | X |
| What impact did the Advisor have on your decision to attend your selected institution? | X | X | | |
| What other factors, individuals or groups, outside of the technical college played a role in your decision to attend the articulating institution? | X | X | | |
| At what point did you realize the institution you chose was the one for you? Why was this the deciding moment for you? | X | | X | X |
| Could anything have made you change your mind? What could have caused you to select another institution? | X | | X | X |

Research Question Addressed

| Interview Question | Research Question Addressed | | | |
|---|-----------------------------|----|----|----|
| | #1 | #2 | #3 | #4 |
| Describe your understanding of the purpose of the Academic Advisor at your institution? | X | | X | X |
| How would you describe any connections/support between the technical college and the institution in which you transferred? | X | | X | X |
| How would you describe your satisfaction level with the services provided by the Academic Advisor since you have been enrolled at your institution? | | X | X | X |
| Describe how you have been supported while being a student at your selected institution. Include support received during the COVID-19 Pandemic. | X | | X | X |
| Describe an Academic Advisor that meet the needs of all students | X | X | X | X |
| Reflecting on your decision and knowing what you know now, would you make the same decision? Why or Why not? Explain. | X | X | X | X |
| Is there anything else I should know? Is there some aspect of academic advising or post-secondary planning that I didn't consider? | X | X | X | X |