

Motivations for Dual-enrollment from a Student Perspective: A Qualitative Study

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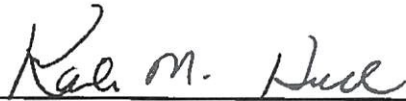
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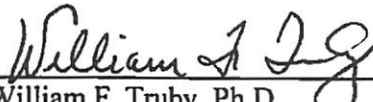
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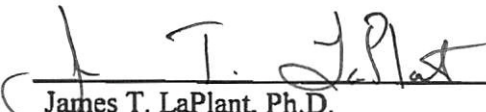
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ABSTRACT

Due to workforce skill gaps in the modern economy, our nation is focused on college and career readiness (Hughes, Rodriguez, Edwards, & Belfield, 2012). In a world where most jobs at a living wage require at least some postsecondary education or training, earning a high school diploma is a necessary but insufficient step toward supporting oneself and one's family (Carnevale, Strohl, Chea, & Ridley, 2017). Participation in dual-enrollment programs has been found to help individuals view themselves as college students, leading to increased student enrollment in post-secondary programs after high school (Hooker & Bland, 2010). Although dual-enrollment options cannot assure a student's success, insights from the dually enrolled students in this study can play a role in understanding barriers such as costs of enrollment, student apathy, advising missteps, and distrust among educational partners (Howley, Howley, Howley, & Duncan, 2013). This study is one of the few conducted in a technical college environment, and distinctive in its focus at a college and career academy setting.

This qualitative study was designed to describe dual-enrollment experiences at a technical college, and identify factors that motivate or inhibit high school students' decisions to participate in dual-enrollment classes in such an environment. The study addressed perceptions and experiences of students who were currently enrolled in such programs through one technical college. Semi-structured, open-ended interviews were utilized to gather perspectives on this topic among participants in dual-enrollment classes at a technical college/career academy. The findings of this study suggest the positive value of dual-enrollment programs at a technical college as perceived through the lens of currently enrolled students.

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Chapter I

INTRODUCTION

A rapid shift in our national economy from industry dependency to a more complex technology-based, information-age economy has amplified the demand for advanced skills and postsecondary credentials. Declining high school graduation rates and evidence of students unprepared for postsecondary options have commanded the attention of the federal government, educators, and the general community (Krueger & Lindahl, 2006). One solution to these challenges is implementation of a robust dual-enrollment program. In dual-enrollment or dual credit programs, high school students are enrolled in a course or courses at a postsecondary institution while still in high school. These college courses earn students both high school and college credit simultaneously (Andrews, 2003; Bailey, Karp & Columbia University, 2003). The value of earning college credit in high school is recognized by employers as a way to accelerate workforce development initiatives and get future employees prepared at an earlier age.

When compared with their peers, dual-enrollment students were 12 percent more likely to enter college within seven months of graduation from high school (Hooker & Bland, 2010). Allowing youth to participate in programs providing access to college campuses and classes through dual-enrollment is a way to help students gain college experience and see themselves as college students (Hooker & Bland, 2010). Although researchers have provided some information about student success, very little is known about perceptions, attitudes, and motivations for dual-enrollment from a high school

student's perspective. This study was designed to understand the dual-enrollment experience at a two-year technical college and identify factors that motivate or inhibit students' motivations to participate in dual-enrollment programs situated in technical colleges.

Statement of the Problem

Between 2003 and 2011, enrollment in dual credit courses almost doubled to two million students in public high schools (Thomas, Marken, Gray, Lewis, National Center for Education, & Westat, 2013). Researchers have highlighted improved study habits, academic rigor in early college preparation, changes to a student's motivation and other social-psychological changes, such as the confidence to perform in college and the socialization process of being a college student, as central functions of dual-enrollment (Hughes, Bailey, & Karp, 2002). Some studies have revealed participation in dual-enrollment is positively related to college GPA, persistence, and degree attainment (Karp, Calcagno, Hughes, Jeong, & Bailey, 2007). Participation in dual-enrollment programs has been found to help individuals view themselves as college students, leading to increased student enrollment in post-secondary programs after high school (Hooker & Bland, 2010).

While these findings certainly attest to the strength of dual-enrollment, the majority of research draws on the mechanisms affirming dual-enrollment influences on academic performance rather than explicitly defining the motivational elements causing a student to choose dual-enrollment. As a result, research is still lacking when it comes to understanding motivational factors for dual-enrollment selection from a student's perspective. Additionally, very little is known about high school students' dual-

enrollment experiences in technical college dual-enrollment courses. Since technical colleges have a workforce development mission, it is likely the motivation to enroll, and the experience of taking dual-enrollment courses at a technical college would be distinctly different from students experiencing dual-enrollment at four-year institutions. Without an understanding of the factors influencing student decisions to register for dual-enrollment classes, administrators and teachers are left to “guess” what factors motivate students’ decisions. Data on student decision-making and perceptions of experiences related to dual-enrollment programs in technical colleges can inform recruitment efforts and guide educators in their efforts to close the achievement gap as they seek to better support high school students.

Conceptual Framework

For this study, a conceptual model was developed from theory and research surrounding the internal/external motivational elements possibly contributing to a student’s decision to enroll in the dual-enrollment pathway. Motivation theories provided the conceptual framework for this qualitative study, with foundational principles having roots from earlier theories of motivation, such as a learned drive for achievement (McClelland, Atkinson, Clark, & Lowell, 1953). This theory suggests achievement-oriented activity is undertaken by an individual with the expectation his/her performance is being evaluated in terms of some standard of excellence. It is presumed any situation arousing expectancy by presenting a challenge to achieve must offer opportunities to succeed as well as the threat of failure (McClelland, Clark, Roby, & Atkinson, 1949). Through such challenges a student can naturally gain confidence as he/she pursues and accomplishes tasks that develop self-esteem. Success at post-secondary levels has been

linked to a student's perception of self-worth (Covington, 1984). Such motivational aspects suggest there is a direct correlation between levels of self-efficacy and motivation ultimately being one of the most important predictors of students' academic success (Bandura, 1997).

Motivational theories include aspects of autonomy, interest, competence or self-worth, relatedness, drive reduction, arousal, and self-determination (Murray, 2011; Ormrod, 2008). These theories of motivation shape the way students feel about learning and fuels their drive for learning. Murray (2011) believed interest was a key feature of intrinsic motivation and self-determination. Motivational and self-worth theories are related because the actions of driven individuals are built on self-determination to succeed (Deci, Vallerand, Pelletier, & Ryan, 1991). When actions or behaviors are self-determined, the governing process is choice and individuals make decisions based on self (Deci et al., 1991). Successful students are self-determined and self-regulated (Cohen, 2012; Deci et al., 1991). Students who internalize educational values, and are intrinsically motivated, often experience optimal outcomes in education (Deci et al., 1991).

Motivation can be derived internally or externally with a multitude of factors influencing human behavior. Scientists have concluded students have more capacity for lifelong learning than previously thought and a student's environment can affect his/her mindset (Dweck, 2009). Additionally, external motivators for dual-enrollment students may be associated with incentives for completion such as the promise of a better career. Incentive theory suggests people are drawn to behaviors offering positive incentives and push away from behaviors associated with negative incentives (Bernstein, 2011).

The conceptual framework for this study was developed to include external motivational elements that might contribute to a student's decision to enroll in the dual-enrollment pathway at a technical college. Student success has been defined as "the degree to which individuals meet their educational goals" (Hirschy, Bremer, & Castellano, 2011, p. 312) and has been measured by a broad array of potential outcomes. Consideration of student characteristics, institutional best practices, and identifying factors have been developed, but no one comprehensive theory exists to predict or explain the motivations from a student perspective. The focus population of this conceptual framework was on dual-enrolled students at a public technical college setting in Georgia. The concept map framing this study is depicted below in Figure 1.

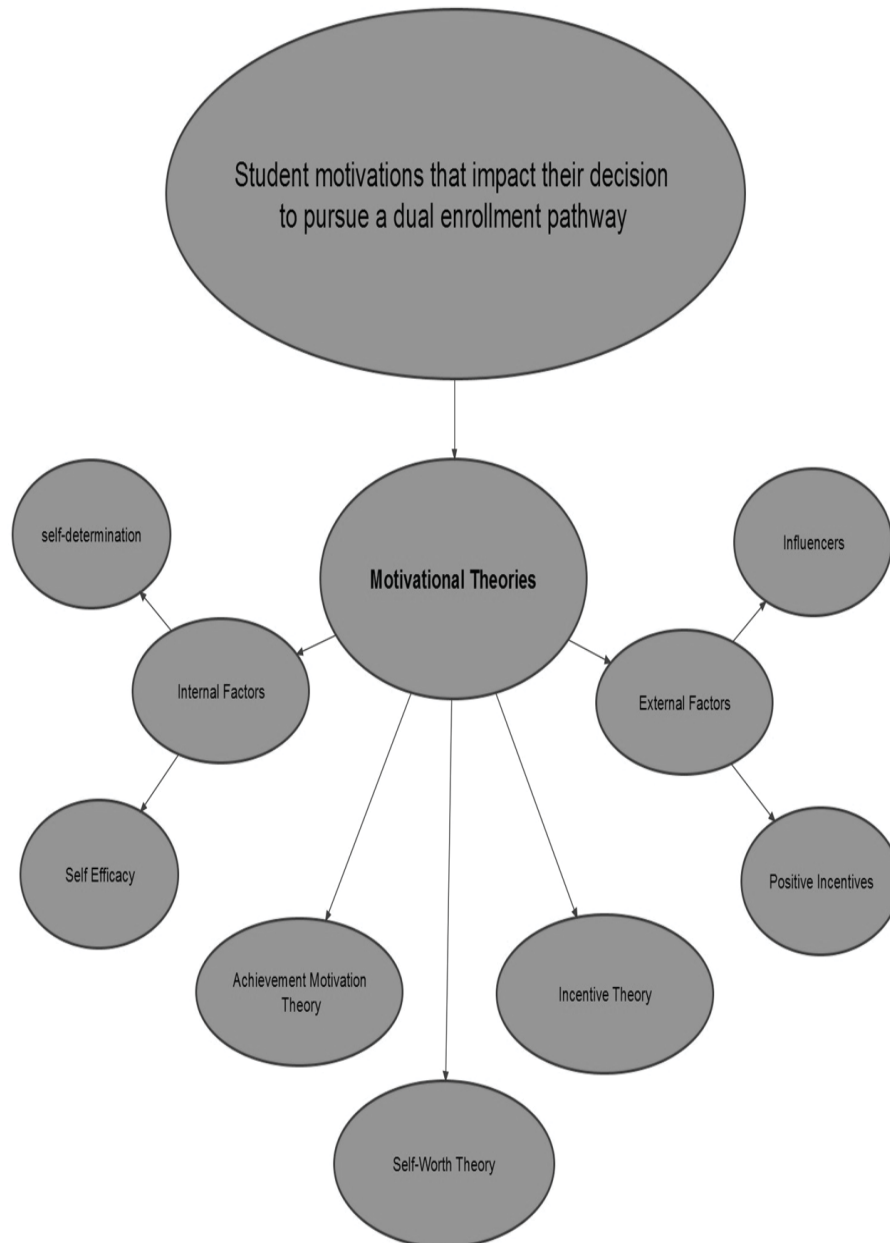


Figure 1. *Concept Map*

Purpose

The purpose of this qualitative study is to describe dual-enrollment experiences at a technical college, and identify factors that motivate or inhibit high school students' decisions to participate in dual-enrollment classes at a technical college.

Research Design

An interpretive qualitative methodology was used to discover perceptions and experiences of current students who had chosen to participate in dual-enrollment programs at a technical college. Semi-structured, open-ended interviews were utilized to gather perspectives on this topic. Fifteen dual-enrolled students were selected to participate in two individual interview sessions. The first set of interviews was designed to elicit a rich description of the dual-enrollment experiences of high school students at a technical college. The second interview session sought to explore students' perceptions of factors that motivate and those that inhibit the decision of high school students to participate in dual-enrollment courses at a technical college.

Research Questions

Two primary research questions were posed in this study with the intent of gathering data to further understand student perceptions in this specific educational setting:

RQ1: How do high school students describe their dual-enrollment experiences at a technical school?

RQ2: What are the perceptions of dual-enrolled high school students about factors that motivate or inhibit decisions to pursue dual-enrollment at a technical college?

Significance of the Study

Feedback from employers across the country, as cited throughout this study, pointed to a growing need for a skilled workforce with technical knowledge to support the high level of automation in society. In both the United States and other industrialized countries, the proportion of jobs requiring high skill workers is increasing substantially (Manyika, Lund, Auguste, & Ramaswamy, 2012). Surveys indicated employers in fields such as advanced manufacturing cite skill shortages as reasons for why they cannot expand or improve productivity (Morrison, Maciejewski, Giffi, DeRocco, McNelly, & Carrick, 2011).

Dual-enrollment programs at technical colleges can play a key role in resolving this issue since high school students will graduate with college credentials while being immersed in the workforce culture found at this type of institution. Finding the motivational aspects students consider most prominent when choosing to pursue such pathways can provide educators and employers valuable insights to more effectively recruit and inspire future students.

Many states see dual-enrollment as one more approach in addressing factors students cite as reasons for not remaining in school (Kennedy, 2008). There is strong evidence graduation rates at the secondary level are enhanced greatly when students take dual-enrollment pathways (Complete College America, 2012). The alignment of early college programs into the K-12 system is clearly focused on improving this statistic. Preparation of students for college-level work is needed to address postsecondary access and success issues. Almost 20 percent of entering freshman at four-year universities are placed in remedial classes (Complete College America, 2012).

This study is one of the few conducted in a technical college environment, and distinctive in its focus at a college and career academy setting. Previously, the most comprehensive statewide study of high school and technical college dual-enrollment in Georgia was initiated ten years earlier. The purpose of this multi-year, multi-method study was to investigate the transition of students from secondary schools to the technical colleges in Georgia to better understand the outcomes, process, facilitators, and barriers to high school student access to and continuation in postsecondary education (Harnish & Lynch, 2005). The State of Georgia has authorized funds for such secondary-level charter college and career academies positioned regionally and partnered with a postsecondary community or technical college on-site. This is a model of seamless education predicated upon physical placement near one of the strategic industry clusters in the state (Lakes & Burns, 2012). Most dual-enrollment studies are narrowly focused, and look at student experiences as they relate to a program of study (i.e. whether college instructors are more challenging, whether classes are useful and rigorous, etc.); grade point averages and retention rates once students graduate and matriculate into postsecondary education; and time to degree completion in college (Kennedy, 2008). Since technical colleges have a distinct workforce development mission, the motivations and experiences of dual-enrolled students in this environment are likely to be unique. Results from this study may also serve to further the acceleration of dual-enrollment participation, and enable a faster transition of young adults into careers.

Limitations

This study was limited by population size and the physical setting for research in only one college and career academy. The established academy has been in operation for

over a decade, and it was well known by students within the local school system. The student perceptions throughout the school district could potentially be affected by the established reputation and success of this particular charter school. Such perceived “bias” is recognized by me and I will interpret participant responses accordingly. What is important is to understand is how one is influencing what the interviewee says and how to most productively and ethically use this influence to answer the research questions (Maxwell, 2013, p. 243).

Reactivity was also a concern given my role as a college administrator linked to the high school setting within this study. My relationship with school system personnel and students could cause some guarded or unnatural responses in the data collection phase. The approach to reactivity in most quantitative research, of trying to “control” the effect of the researcher, is appropriate from a “variance theory” perspective. The goal in a qualitative study is not to eliminate this influence but to understand it and use it productively. For participant observation studies, reactivity is generally not as serious a validity threat as many people might insist (Maxwell, 2013). Becker (1970) points out in natural settings an observer is generally much less of an influence on participants’ behavior than is the setting itself. In contrast, for all types of interviews the researcher has a powerful and inescapable influence on the data collected. What the interviewee says is always a function of the interviewer and the interview situation.

Given my involvement as a higher education administrator, there was potential for a perceived bias relating to this topic. My prior knowledge of dual-enrollment through various administrative roles with the Technical College System of Georgia has undoubtedly formed a basis for knowledge on this subject. This experiential knowledge

has served as a starting point for my research; however, I did make every effort to be cognizant of my prejudices that could impair the study going forward. This was further mitigated through the open-ended format of the participant interviews, field notes, and member checks throughout the study.

Definition of Terms

Chief Executive Officer (CEO). In any organization, the CEO serves as the senior leader who links the organization, or the inside, with the society, the economy, technology, markets, customers, collaborators, the media, and public opinion, or the outside (Edersheim, 2007).

College and Career Academy. As defined in SB 161 (OCGA 20-4-37), signed by Governor Nathan Deal on May 11, 2011, a “College and Career Academy” is a specialized charter school established by a partnership which demonstrates a collaboration between business, industry, and community stakeholders to advance workforce development between one or more local boards of education, a private individual, a private organization, or a state or local public entity in cooperation with one or more postsecondary institutions (Georgia College and Career Academies, 2017).

Complete College America. Established in 2009, CCA is a national nonprofit (notably backed by the Lumina Foundation) with a single mission: to work with states to significantly increase the number of Americans with quality career certificates or college degrees and to close attainment gaps for traditionally underrepresented populations (Complete College America, 2010).

Dual-enrollment Programs. These collaborative efforts between high schools and colleges allow high school students, usually juniors and seniors, to enroll in college

courses and get dual credit. If successful the student gets credit for a high school requirement and credit for a college course. These programs provide students with a challenging academic experience and the opportunity to earn college credit prior to high school graduation. Unlike in other programs such as Advanced Placement (AP) and International Baccalaureate (IB), dual-enrollment students take actual college courses with a college syllabus, often on a college campus, rather than a college-level course intended to be taken by high school students (Karp et al., 2007).

Dual-enrolled student. This is a student who has taken one or more dual-credit courses in high school.

Move On When Ready Program. The new MOWR Dual-enrollment Program streamlines the existing dual-enrollment options in Georgia (Accel, HOPE Grant, etc.) into one program with one funding source. MOWR also includes provisions to help remove some of the financial barriers that may prevent students from participating in dual-enrollment (Technical College System of Georgia, 2015).

RESA. Acronym for Regional Educational Service Agency. There are 16 RESAs serving the 180 school systems across the State of Georgia. Their purpose is to better promote the spread of successful practices to all schools and create shared learning communities for multiple school districts (Georgia Department of Education, 2017).

Skills gap. This term defines the national phenomenon relating to the problem of finding the right workers with the right skills and credentials exists even in an era of persistent unemployment (Boettcher, 2014).

STEM education. This term refers to an interdisciplinary approach to learning where rigorous academic concepts are coupled with real-world lessons as students apply

science, technology, engineering, and mathematics in contexts that make connections between school, community, work, and the global enterprise enabling the development of STEM literacy and with it the ability to compete in the new economy (Tsupros, Kohler, & Hallinen, 2009).

Organization of the Study

This chapter introduced the background, problem, purpose, significance, research questions and hypotheses, delimitations, assumptions, and definitions of key terms in the study. Post-secondary student retention and success rates are challenging obstacles for all involved stakeholders in education. Offering more students opportunities to participate in dual-enrollment programs could potentially increase this retention rate. Prior research has shown community college students who have taken dual credit courses in high school are more likely to enter, be successful, and continue on to their second year of college (Hoffman, Robins, & Jobs for the Future, 2005).

In Chapter 2, the conceptual framework for the study is outlined along with key research relating to student success surrounding dual-enrollment and early college practices to offer a broad overview of this topic. The chapter is divided into nine general sections: (a) key research related to dual-enrollment, (b) the lack of skilled workers in this country, (c) increased demand for a college degree, (d) employer perspectives related to this issue, (e) predictors for college achievement, (f) motivational aspects related to college success, (g) academic success related to dual-enrollment, (h) social engagement relating to dual-enrollment, and (i) benefits of dual-enrollment.

Chapter 3 provides an outline of the methodology used in the study to assess the issue of student motivations for dual-enrollment participation. Chapter 4 presents the

results gathered from the explanatory interview questions along with analyses. Chapter 5 includes a discussion of the results, conclusions and recommendations for future research.

Chapter II

LITERATURE REVIEW

Dual-enrollment programs are true collaborative efforts between high schools and colleges in which high school students, usually juniors and seniors, are permitted to enroll in college courses. These programs provide students with a challenging academic experience and the opportunity to earn college credit prior to high school graduation. Unlike other programs such as Advanced Placement and International Baccalaureate, dual-enrollment students take actual college courses with a college syllabus, often on a college campus, rather than a college-level course intended to be taken by high school students (Karp et al., 2007). History has shown dual-enrolled students are less likely to take a remedial course than nonparticipants, and adds to their chance of success in future college courses (Bragg et al., 2009).

While the baseline outcomes of dual-enrollment participation have been well established with respect to college performance and completion, limited research has been conducted to explain how or why these postsecondary outcomes tend to occur (Karp et al., 2007). The basis for increased rates of college completion for dual-enrollment students takes different perspectives. One logic advanced in the research is early college course-taking experiences are tied to increased familiarity and understanding of various aspects of college, academic and otherwise (Karp & Hughes, 2008). Karp et al.'s (2007) qualitative study of dually enrolled high school students revealed early experiences in a

college course led to earlier development of a college student identity helping foster educational aspirations among students.

A few studies have examined students' motivations and one in particular, conducted with students enrolled in technical college dual-enrollment programs in Georgia, found the most common motivation for participation centered on the desire to obtain college credit for courses and to increase wage-earning potential both during and after college (Harnish & Lynch, 2005). Students reported other reasons for participating in dual-enrollment: learning a skill, taking different or interesting courses the high school may not offer, or to attend classes during the school day at a college with state-of-the-art equipment (Kennedy, 2008). Some stated they took the dual-enrollment option because someone (often a friend) suggested it (Harnish & Lynch, 2005).

History of Dual-enrollment Programs

Although dual-enrollment began as an option for academically advanced students, similar to AP and IB, it is now seen as a mechanism to promote college access for a wider range of students. Some programs focus specifically on students traditionally underserved in college. Dual-enrollment originated in the United States in the 1970s with the intent of providing a more challenging curriculum to advanced high school students. The original purpose was to resolve the issue of senioritis, the boredom experienced by senior-year students who completed most of their diploma requirements by their junior year (Delicath, 1999). Around the time of its inception, too many students were coasting through their senior year and not being academically challenged. They were merely taking the minimum number of credits needed to complete the high school requirements. As a result, an educational gap was identified, as well as a need to maintain the

intellectual intensity for these students as high school graduation approached (Andrews, Fonseca, & Association of American Geographers, 1998).

The first secondary/postsecondary dual-credit partnership arose in 1973 with the Syracuse University Project Advance (SUPA). Syracuse University, through the Center for Instructional Development, proposed a cooperative project based on existing college courses which had gone through an instructional development process with field testing and evaluation on campus. The intent of the initial proposal was to provide a new option for academically able seniors (Holloway, 1975). Other institutions began to implement their version of dual credit, but it was not until the 1980s that dual-credit partnerships began to truly proliferate (Fincher-Ford, 1997).

Comprehensive school reform came into being during the 1980s but grew in importance during the late 1990s with the support of Congress, which created the Comprehensive School Reform Demonstration Program (later the Comprehensive School Reform Program), and with the sponsorship of New American Schools. Although not a centerpiece of No Child Left Behind, it nevertheless remained a reform approach which has garnered the support of major foundations and remains of interest to the education community (Fleischman & Heppen, 2009). One of the most comprehensive studies of dual-enrollment and other accelerated learning options was conducted by the National Center on Educational Statistics (NCES) for the 2002-2003 school year. At that time, it was estimated more than 87 percent of America's public high schools offered their students the opportunity to earn college credit prior to graduation (Hoachlander, Sikora, & Horn, 2003). Regardless of the specific types and scope of dual-enrollment options promoted, there was a preponderance of state policies designed to provide advanced

educational programs for high-achieving students. This has been illustrated by the fact that many state policies include specific eligibility requirements for student participation in dual-enrollment programs, including minimum grade point averages and/or scores on college placement exams (Barnett & Stamm, 2010).

Funding of dual-enrollment programs was a major impetus in driving more students and parents to consider this pathway. The Blackboard Institute Report (Barnett & Stamm, 2010) highlighted this recruitment strategy as states began to fund dual-enrollment programs through a variety of approaches, including the following:

- In Georgia, students were able to apply for tuition support from the HOPE Grant fund, established with revenues from the state lottery.
- In California, the Board of Governors of the California Community Colleges created a tuition waiver for dual-enrollment students to ensure that no high school student pays for college attendance.
- The City University of New York (CUNY) has had a long-standing partnership with the New York Department of Education to provide a range of college preparation and dual-enrollment options to New York City high school students. The CUNY system waives tuition for students taking college courses.
- In Ohio, the Post-Secondary Options Program financed college tuition, fees and other costs (e.g. books) for high school students in dual-enrollment courses by transferring a portion of the state's public school per-pupil allocation to the college.

Dual-enrollment was initiated in Georgia in 2009, and took a dramatic leap forward in 2015 with the backing of legislation by Governor, Nathan Deal and Lt.

Governor Casey Cagle. The creation of the new Move on When Ready Program (MOWR) streamlines the process for high school student participation with the following program enhancements:

(1) The MOWR program makes it easier for students, parents and schools to understand by streamlined funding through one source with one set of eligibility requirements and regulations.

(2) In addition, MOWR aims to expand dual-enrollment opportunities by increasing the number of courses students can take for college credit and removing financial barriers to student participation.

(3) The goal of MOWR is to increase college access and completion, and prepare students to enter the workforce with the skills they need to succeed (Technical College System of Georgia, 2015).

Relevant Theories of Achievement Motivation

All contemporary theories of achievement motivation have evolved from earlier drive theories emphasizing the satisfaction of basic needs such as hunger and thirst as among the most powerful organizers of behavior. Because of the obvious limitations of a strictly physiological approach to a general theory of human behavior, researchers eventually broadened their focus to include learned drives or psychological motives such as the need for approval, belongingness, and achievement.

Achievement Motivation Theory

This work began with a simple physiological tension which the majority community would accept as a need or drive (McClelland, Clark, Roby, & Atkinson, 1949). The most sophisticated of these early theories of motivation as a learned drive is

still influential today and was developed in the 1950s and early 1960s by David McClelland and John Atkinson (Covington, 1984). This foundational achievement theory assessed the satisfaction of success and arousal by failure in the same way that hunger is satisfied by food and aroused by deprivation of food. If manipulation of the conditions of ego-involvement produces the same kind of effects on projection as manipulation of hours of food deprivation, there would be some basis for considering the psychogenic state aroused as a need. Motivation is generally regarded as the drive to achieve targets and the process to maintain the drive. Motivation provides an important foundation to complete cognitive behavior, such as planning, organization, decision-making, learning, and assessments (Pintrich & Schunk, 1996).

When addressed in the educational setting, it is widely accepted that students form self-concepts, values, and beliefs about their abilities at a young age. Consequently, the development of early achievement motivation has significant implications for later academic careers. A great deal of research found that students high in achievement motivation were more likely to have increased levels of academic achievement and have lower dropout rates (Blank & Harwell, 1997).

Building on this research, a recent longitudinal study highlighted these issues by measuring achievement motives prior to the measurement of self-efficacy and achievement goals. By measuring subsequent academic achievement at several stages of education, the design presents a more realistic investigation of how basic achievement motives predict self-efficacy and achievement goals during the course of the students' education and how all of these motivational factors may predict both short- and long-term

subsequent academic achievement at several stages of education (Bjornebekk, Diseth, & Ulriksen, 2013).

Internal Motivation - Self-Worth Theory

Covington's self-worth theory focuses attention on the pervasive need implied in the drive-theory model to approach success and avoid failure, which causes a sense of worthlessness and social disapproval. Our society recognizes personal worth depends largely on one's accomplishments. Because ability is seen as a critical component of success, and inability a prime cause of failure, self-perceptions of ability become a significant part of one's self-definition (Covington, 1992). Confidence to progress into post-secondary levels has been shown historically to link with a student's perception of self-worth. Students' pursuit of educational goals for autonomous, relative to heteronomous, reasons has been positively associated with value endorsement, behavioral persistence, conceptual understanding, personal adjustment, and positive coping. The "why" of goal pursuits does make a difference in terms of educational outcomes (Deci & Ryan, 2000).

This aligns with research surrounding self-efficacy. According to noted psychologist Albert Bandura (1995), a strong sense of efficacy increases human success and personal well-being in a multitude of ways. People with confidence in their capabilities tend to approach difficult tasks as challenges to be overcome rather than as things to be avoided. When children possess high levels of efficacy, they often possess a deeper interest in activities and maintain strong commitment towards them. They sustain their effort when facing obstacles and their sense of efficacy rapidly returns even after experiencing failures or setbacks. Bandura (1995) describes his belief that a strong sense

of efficacy directly influences the level of effort and persistence students exhibit towards accomplishing a task. His research also suggests an individual's level of motivation is based primarily on what they believe can be accomplished rather than what they may truly be capable of achieving. His work suggests there is a direct correlation between levels of self-efficacy and motivation which may ultimately be one of the most important predictors of students' academic success (Bandura, 1997).

External Motivation - Incentive Theory

Incentive theory of motivation proposes individuals are motivated to do things because of external rewards. Bernstein (2011) describes the theory as people pulled toward behaviors offering positive incentives and pushed away from behaviors associated with negative incentives. Differences in behavior from one person to another, or from one situation to another, can be traced to the incentives available and the value a person places on these incentives at the time (Bernstein, 2011, p. 17). Empirical findings pertaining to student motivation and particularly intrinsic motivation continue to evolve, contributing to understanding how external motivation can be harnessed to facilitate learning and positive learning outcomes (Deci & Ryan, 1985; Deci & Ryan, 2000). Further research has revealed an increased importance of student engagement, which is a construct referring to a student's level of active involvement in a given learning activity (Christenson & Anderson, 2002; Fredricks, Blumenfeld, & Paris, 2004; Kahu, 2013). Together these two constructs play a vital role in enhanced learning and approaches to teaching. Evidence has revealed that engagement fully mediates the well-established relationship between external motivation and achievement (Reeve & Tseng, 2011).

Creating a Successful College-Going Culture

Successful college integration is affected by multiple pre-entry student perceptions and background in areas such as family support, existing skills, and prior education. These items, over time, interact with individual intentions and goals, as well as institutional, academic, and social experiences (Tinto, 1993). Key studies in education have found the following five elements to be central to the establishment of a successful college-going culture: (a) academic momentum, (b) an understanding of how college plans develop, (c) a clear mission statement, (d) comprehensive college services, and (e) coordinated and systemic college support (Corwin & Tierney, 2007). In terms of postsecondary attainment, the United States is actually losing ground to its international peers. The baby boom generation ranked first in bachelor's degree attainment and third in postsecondary attainment internationally, but today's generation of young adults ranks 12th in bachelor's degree attainment and 11th in postsecondary attainment overall. The largest room for growth is in career-focused associate's degree programs, where the United States ranks 17th internationally, at 10 percent. By comparison, 25 percent of young adults in Canada earn a career-focused associate's degree (Carnevale, Hanson, & Gulish, 2013). Some educators and researchers attribute the academic under-preparation of many students to the lack of alignment in terms of coursework, pedagogy, and assessments between secondary and postsecondary systems (Venezia, Finney, & Callan, 2007). Almost 20 percent of entering freshman at four-year universities are placed in remedial classes (Complete College America, 2012).

Dual-enrollment

Participation in dual-enrollment programs can significantly impact a student's motivation to pursue college in numerous ways. Cabrera and La Nasa (2000) conducted a comprehensive review of ten major factors that influence the college choice process. Among such factors were students' educational and occupational aspirations, availability of information about college, cost of attendance, and financial aid. If curricular rigor is related to educational aspirations and those aspirations are a key predictor of students' college choices, the completion of college-level coursework by high school students in dual-enrollment could play a salient role in those students' decisions about whether and/or where to enroll in college (Museus, Lutovsky, & Colbeck, 2007). Given this analysis, information relating to college has been shown to affect a student's choices to pursue postsecondary education. The amount of time and energy dual-enrolled students spend navigating their way through college environments and learning about student life could potentially impact those students' college choice processes. In states, such as Georgia, where dual-enrollment is funded by the government or educational partners, it is feasible for students to complete credits via tuition-free dual-enrollment programs. This reduces dramatically the total cost of attaining a college diploma/degree while arming these students with experience to make a more informed decision on their choice and pathway into a post-secondary environment.

By providing teenage youth opportunities to participate in programs providing a link to college campuses and classes, there are certain defined practices helping to predict success. Dual-enrollment, early college models, and experiential learning opportunities are often perceived by educators as a way to help students gain college knowledge and see themselves as college students. Each school system's leaders must also recognize that

offering a high quality, college and career experience for its students requires the incorporation of input from both teachers and business leaders (Cagle, 2016). When compared with their peers, dual-enrollment students were 12 percent more likely to enter college within seven months of graduation. Again, the high school readiness angle can be explored further to link transition into higher education (Hooker & Bland, 2010).

Impact on Academic Success in College

Robbins et al. (2004) found predictors for college achievement and success were best described within three constructs: motivation, academic-related skills, and social engagement. These constructs serve as a valid and helpful focus for framing investigation of dual-enrollment students' perceptions of college readiness (Robbins et al., 2004). A major concern among educators and policy makers is whether college entrants are prepared academically to handle college coursework. Studies show high school academic preparation is a key determinant for college entry and success (Nora & Oseguera, 2012). In a tri-state five-year study conducted by Kim and Bragg, research also found males and low-income students benefitted more from dual-enrollment than their peers (Chumbley II, 2015).

Dual-enrollment students persist in college and earn more credits three years after high school graduation than non-participants (Howley, Howley, Howley & Duncan, 2013). The cumulative GPA's of dual-enrollment students three years after high school graduation are significantly higher than those of non-participants. Although dual-enrollment options cannot assure a student's success, insights from dually enrolled participants can play a role in understanding barriers such as; costs of enrollment, student apathy, advising missteps, and distrust among educational partners (Howley et al., 2013).

Social Engagement

Dual-enrollment programs provide a transitional period in which students learn normative rules and behaviors of what it means to be a college student. The transformation from a high school to a college student not only requires changes in the efforts students apply towards their academics, but they are also required to navigate a new social system (An, 2015). Such experiences allow students to learn normative rules and behaviors expected of a college student. Researchers also find that participation in dual-enrollment is positively related to college GPA, persistence, and degree attainment (An, 2013).

The transition period provided by dual-enrollment may improve students' persistence in college because students who participated in dual-enrollment do not need to spend their initial time becoming acclimated with their new role (Karp, 2012). As a result, dual enrollees are better prepared to handle the expectations of their professors as soon as they enter college than non-participants, which potentially gives dual enrollees an edge over their peers (Bailey et al., 2003; Burns & Lewis, 2000). In her qualitative study of 26 dual enrollees, Karp (2012) uses role and socialization theory to explain how students shift their role conceptions during their first semester of college courses. Karp found that students at the start of the semester had vague notions of a college student. Such individuals would describe their perception of a college student in general terms, and they pursued strategies appropriate perhaps for high school students yet unacceptable for a successful college experience. By the end of the semester, however, most students had a clearer sense of the college student role. Students were able to describe the college student role in greater detail, such as students need to take greater ownership of their

learning and seek help, as well as describe concrete strategies for academic success. Karp's (2012) findings are consistent with other studies showing that dual enrollees express less coddling in their college courses than in their high school courses (Huntley & Schuh, 2002–2003; Immerwahr & Farkas, 2006).

The results of one study found dual-enrolled students earned baccalaureate degrees at a much faster rate compared to other students which is consistent with two possible interpretations: either dual-enrollment experiences better prepare those students of average academic performance, or dual-enrollment students perform better than Advanced Placement (AP) students in terms of their unobservable characteristics such as motivation (Klopfenstein & Lively, 2012, p. 64). The Klopfenstein & Lively research compared the two most popular college-level programs, Advanced Placement (AP) and dual-enrollment, and explained how choosing between the two is likely to be contingent on such varied factors as a school's geographic location and a student's academic profile and postsecondary aspirations. In a study of Texas high school graduates from 1997, Klopfenstein (2010) found that college students who had participated in dual-enrollment graduated with a baccalaureate degree significantly faster than demographically and academically similar students with AP experience, and AP students graduated no faster than students who took no college-level courses in high school. Klopfenstein's finding that dual-enrollment students earn baccalaureate degrees significantly faster than other students is consistent with two possible interpretations: either dual-enrollment does a better job bringing along middle-achieving students, or students who participate in dual-enrollment are stronger than AP students in terms of their unobservable characteristics, such as motivation. Although these two interpretations are not mutually exclusive, neither

is consistent with the notion that dual-enrollment is inferior to AP. Using Florida data, Speroni (2011) found that although dual-enrollment participants were more likely to go to college than similar students who took AP, the AP students were more likely to enroll in four-year colleges immediately following high school. However, using a measure of simple degree completion rather than time to degree, Speroni found little difference between the college graduation rates of AP and dual-enrollment students.

The transition period provided by dual-enrollment may improve students' persistence in college because students who participated in dual-enrollment do not need to spend their initial time becoming acclimated in their new role (Karp, 2012). It is this unique blending of collegiate experiences while in high school that requires dual-enrollment participants to reach for new social networks amidst their learning activities. To evaluate the framework, these researchers engaged in a semester-long study of dual-enrollment students. Data collected included a series of semi-structured interviews with twenty-six high school students enrolled in dual-enrollment courses offered through two community colleges in New York City and in-depth observations of those dual-enrollment courses. Participants were first-time dual enrollees, which enabled the researchers to examine their understanding of the role of college student prior to and after dual-enrollment participation. Students were juniors and seniors and enrolled in one of five dual-enrollment courses. The sample included 15 males and 11 females. Four students were white, two were black, seven were Hispanic, twelve were Asian (primarily southeast Asian), and one was multiethnic. All participants took their college courses on a high school campus and were taught by high school instructors certified as college adjuncts. These students were interviewed three times: at the beginning of the semester to

gauge initial perceptions of what it means to be a college student, at the middle of the semester to document their dual-enrollment experiences, and at the end of the semester in order to revisit their understanding of the role of college student. In total, this study drew on 76 student interviews and 18 classroom observations. Data were analyzed using a case-construction method in order to determine changes in role conceptions.

Both role rehearsal and anticipatory socialization helped students learn about the college student role by exposing them to role-related expectations. This exposure came from the explicit and implicit demands made by their dual-enrollment instructor, the feedback students received on their course performance from the instructor and their peers, and classroom norms developed by the instructor and peers. Students generalized these experiences to their broader image of “college student.” It should be noted that, although authentic courses were more effective in transmitting this type of learning, students in all dual-enrollment courses in this study increased their role-related learning, and no student ended the semester with a more poorly formed or more inaccurate role conception than the one held at the beginning (Karp, 2012). The study also reminded practitioners to make sure the academic component of dual-enrollment courses mirrors those of on-campus college courses. Their findings further indicated broader attention should also be paid so that the normative, behavioral, and attitudinal expectations of dual-enrollment courses reflect well-implemented on-campus courses as well. Such studies affirm the value of exposing high school students to the college experience, and connect dual-enrollment engagement to college readiness based on such socialization.

Successful Early College/Dual-enrollment Programs

Given the rise in early college/dual-enrollment programs, one might assume there is a clear roadmap for establishment and operation of a successful program. The complexities and variations of policy, as well as the attitude of local boards of education, make such undertakings quite a challenge. The six year Stanford University Bridge Project, *Betraying the College Dream – How Disconnected K-12 and Postsecondary Education Systems Undermine Student Aspirations*, investigated how policy structures support, assist, or confuse students, their parents, and K-12 educators about the requirements and options of postsecondary education. This research is considered a foundational study examining both structural gaps between secondary and postsecondary education systems in the American schooling process and the social value of college attendance linked to higher earning potential in the workplace (MacLellan, Gandy, & Stanford University, 2002). Collaborative partnerships in education create seamless pathways, increase access, reduce redundancy of coursework, and allow better management of resources (Bragg, Kim, & Barnett, 2006). Recognizing organizations wishing to collaborate needed assistance, Mattessich, Murray-Close, and Monsey (2001) identified communication, purpose, process and structure, environment, membership, and resources as the six common elements contributing to the success and longevity of the examined partnerships (Mattessich et al., 2001). Moving further towards a roadmap for collaboration, Amey, Eddy, and Ozaki (2007) provided community colleges with a model enabling them to examine partnerships. While the partnership development model does not provide step-by-step instructions, it does provide partners with a way to assess the partnership from beginning through sustainability or termination (Amey et al, 2007). Components for healthy collaboration include mutually beneficial and trusting

environments, and champions to sponsor and support the partnership (Amey et al., 2007). Champions do not necessarily need to be in a position of power or authority, but do need the support of the partnership leader devoted to student success. While most partnerships have one leader, educational partnerships most often have a leader from each entity involved in the partnership (Cunningham & Wagonlander, 2000).

One of the most important issues facing postsecondary institutions is the ability to provide effective developmental education allowing students to enroll in college courses. One of the most important issues facing high schools is identifying key competencies for college readiness and developing curricula and programming to ensure students graduate from high school prepared to enroll and succeed in college. Working together in the transitional space of dual-enrollment, high schools and colleges can create programs that not only better prepare students for postsecondary success by introducing them to the language, rigor, and skills necessary to complete college credit work, but allow both institutions to develop clearly-articulated benchmarks and standards (Hofmann & Voloch, 2012). In Georgia's College and Career Academy network of charter schools, soft skills are regularly a part of the grading scale for students. This practice originated through direct input from partners in the charter system, such as industry professionals, who serve as the true job creators for society (Cagle, 2016).

The Kentucky Community and Technical College System (KCTCS) conducted a longitudinal study to explore the creation of dual-enrollment programs on their campuses and sought to study the key elements necessary to create and sustain collaborative dual-enrollment partnerships. Findings from this study offer evidence for implementing and sustaining institutional partnerships as well as guidance for similar educational

endeavors. When creating an educational partnership between P–12 and postsecondary education institutions, the presence of a champion was deemed essential by survey respondents. When asked to identify champions of the Bluegrass and West Kentucky programs, it was apparent the champions of these respective programs came from all levels and from both secondary and postsecondary education institutions (e.g., P–12 school district superintendents, college presidents, foundation representatives, and HS principals). Superintendents emphasized, through survey feedback, that funding should be institutionalized so programs do not depend on grant or private funding mechanisms that might run out over time (Stephenson, 2014).

Another feature present in successful dual-enrollment programs is some level of intervention into students’ educational experience. Such intervention is important given the varied developmental levels of students, and it often originates from friends, counselors, and adults having influence in their lives. Other programs, such as the College Academy at Broward Community College, show it is beneficial for some regular, mandatory “checking in” with a counselor, adviser, professor, or student group to take place. To allow time for regular checking in, dual-enrolled students at Broward do not have as rigidly scheduled a day as do the traditional high school students, but one more structured than that of a college student (Tinberg & Nadeau, 2011). Such cultural distinctions among high school and college students further reinforce the need for institutions to collaborate when creating early college experiences.

Coupled with suggestions from earlier research, another prominent study by Howley et al. (2013) pointed to several cultural strategies for establishing and sustaining early college and dual-enrollment programs: (a) breaking down hierarchical relationships

by encouraging shared leadership among participating educators, (b) developing secure and consistent lines of communication prior to program implementation, (c) ensuring educators use face-to-face communication to establish relationships before relying on email and other less personal modes of interacting, (d) creating an alignment of schedules and resources, (e) engaging in ongoing discussions of impediments and enablers within partnering institutions, (f) establishing policies that foster synergies and discourage competition, (g) using border crossers to help colleagues negotiate the different institutional cultures, (h) expanding family and community awareness of the programs, and (i) developing long-term funding and budgeting plans. Insights from those studied in the research project suggest that these approaches may play a role in motivating students and faculty to overcome funding issues, sporadic communication, unequal power relations, and distrust among partners (Howley et al., 2013, p. 101).

Increased Demand for a College Degree

In August 2011, Governor Nathan Deal announced Georgia was one of 10 states to be awarded a \$1 million grant by Complete College America (CCA) to fuel policy innovations and reforms aimed at significantly increasing college completion. Established in 2009, CCA is a national nonprofit with a single mission: to work with states to significantly increase the number of Americans with quality career certificates or college degrees and to close attainment gaps for traditionally underrepresented populations. In conjunction with this grant, Governor Deal also introduced his Complete College Georgia initiative. In late 2011, both higher education systems became part of Complete College Georgia, which committed all colleges within the systems to produce more graduates by the year 2020. The Governor's initiative set the goal of an additional

250,000 graduates by 2020 (Hodges, 2013). According to the Georgetown University Center on Education and the Workforce, 60 percent of U.S. jobs will require some form of postsecondary education by 2018. The Complete College initiatives were built around increasing retention and graduation rates across the country, and Georgia is preparing to bring government, employers, and educators together to focus on workforce development through this roadmap. Due to pressures in the modern economy, our nation is focused on college and career readiness (Hughes, Rodriguez, Edwards, & Belfield, 2012). For individual Americans, the consequences of not completing some form of postsecondary education are increasingly dire especially in this economy (Lumina Foundation for Education, 2012). The Complete College Georgia initiative championed by the current Governor, the Honorable Nathan Deal, has changed a number of paradigms within education. Most notably, it has highlighted the seamless transition model that supports continued education well beyond high school. In order to meet that challenge of this initiative, higher education partnerships must be strengthened. Secondary school systems must embrace the potential of dual-enrollment programs which allow qualifying juniors and seniors the chance to enroll in college level coursework. Dual-enrollment, early college models, and experiential learning opportunities, are reviewed as a way to help students gain college knowledge and see themselves as college students. Again, the high school readiness angle can be explored further to link transition into higher education (Hooker & Bland, 2010).

When compared with their high school peers in the Howley et al. (2013) study, those who participated in dual-enrollment were 12 percent more likely to enter college within seven months of graduation. Dual-enrollment students persisted in college and

earned more credits three years after high school graduation than non-participants. The cumulative GPA's of dual-enrollment students three years after high school graduation were significantly higher than those of non-participants. Males and low-income students benefitted more from dual-enrollment than their peers, but the research found student support systems are essential both before and during college courses for middle- and low-achieving students (Howley et al., 2013).

Employer Perspectives

As one nationwide survey revealed, 98 percent of business leaders say they imagine a four-year degree when someone mentions college, 13 percent think of a two-year associate's degree, and only 10 percent say the mention of college conjures thoughts of a career or technical credential (Galagan, 2010, p. 47). Today, there are two STEM economies. The professional STEM economy is closely linked to graduate school education and maintains close links with research universities, but functions mostly in the corporate sector. It plays a vital function in keeping American businesses on the cutting edge of technological development and deployment. Its workers are generally compensated extremely well. The second STEM economy draws from high schools, workshops, vocational schools, and community colleges. This area is where dual-enrollment can play an active role in closing the skills gap.

Workers today are less likely to be directly involved in invention, but they are critical to the implementation of new ideas, and advise researchers on feasibility of design options, cost estimates, and other practical aspects of technological development. Skilled technicians produce, install, and repair the products and production machines patented by professional researchers, allowing firms to reach their markets, reduce

product defects, create process innovations, and enhance productivity. These technicians also develop and maintain the nation's energy supply, electrical grid, and infrastructure.

Conventional wisdom holds that high-skilled, blue-collar jobs are rapidly disappearing from the American economy as a result of either displacement by machines or foreign competition. However, this is a more complex issue with high-skilled jobs in manufacturing and construction comprising an increasingly large share of total employment, as lower-skilled jobs in those fields wane. Moreover, workers at existing STEM jobs tend to be older and will need to be replaced (Rothwell, 2014, p. 3). More than half (53%) of business leaders say their companies face a very or fairly major challenge in recruiting non- managerial employees with the skills, training, and education their company needs despite unemployment close to 10 percent and millions of Americans seeking jobs since 2011 (Bridgeland, Milano, & Rosenblum, 2011, p. 5). An overall loss of expertise and management skill is expected to result from the gradual departure from the workplace of the 77.2 million baby boomers, the oldest of whom turned 60 in 2006.

Results from the 2014 Brookings Institute Jobs Vacancy Report indicated skills common to STEM occupations remain in short supply relative to demand and are valued more by employers. Even Companies located in regions with low unemployment rates for STEM workers have greater difficulty filling their openings, all else being equal. It follows that increased training in STEM fields like computer science and medicine will ease hiring for employers and lead to high-paying career paths for workers (Rothwell, 2014). According to the Social Security Administration (SSA), over the next two decades almost 80 million Americans—more than 10,000 per day—will be eligible for social

security benefits (Galagan, 2010, p. 45). This trend alone is enough to create concern among major employers, especially those requiring technical workforce skills initiated through dual-enrollment pathways.

The search for talent is large according to the Georgetown University Center on Education, finding that since 1983, employers demand for college-educated workers has grown by an average rate of 3 percent each year (Merisotis, 2015). Driving this emphasis is the rapid advances in technology, leading to improvements in productivity and thus reducing the need for production workers. Meanwhile, the growing importance of technology in the overall economy has increased demand for educated workers who can utilize it. This increasing demand for highly educated workers has been a defining feature of our post-industrial economy (Merisotis, 2015, p.172). In a world where most jobs at a living wage require at least some postsecondary education or training, earning a high school diploma is a necessary but insufficient step toward supporting oneself and one's family (Carnevale, Strohl, Chea, & Ridley, 2017).

Summary

The literature reviewed in this chapter provides a foundation for understanding the background of related motivational theories, successful early college programs, and student experiences in dual-enrollment. Literature is still limited regarding student motivations for selecting dual-enrollment as a pathway. More specifically, very few research studies exist that address student perceptions of dual-enrollment at a technical college. Researchers in the field of dual-enrollment typically explored the practice as a successful model for high school to college transition.

In Chapter 3 the overall methodology used in this study is described, followed by Chapter 4 which includes the results of the research. Chapter 4 provides the discussion of findings, implications for further research on this topic, and overall recommendations.

Chapter III

METHODS

The purpose of this study was to describe dual-enrollment experiences at a technical college, and identify factors that motivate or inhibit high school students' decisions to participate in dual-enrollment classes at a technical college. Participation in dual-enrollment programs that provide access to college campuses and classes has been found to help individuals view themselves as college students, while increasing student enrollment in post-secondary programs after high school (Hooker & Bland, 2010). Using an interpretive qualitative methodology, I gathered and interpreted interview data which described the perceptions and experiences of students who had chosen to participate in dual-enrollment programs. The resulting insights shall provide additional data for the further development of recruitment opportunities in the dual-enrollment arena.

Research Design

This study focused on understanding how students make sense of their experiences and their decisions to enroll in dual-enrollment classes. The basic interpretive approach used in this study included inductive analysis that focuses on situations or people, with an emphasis on descriptions rather than numerical values. The essence of understanding the meaning for participants in the study creates a deeper understanding of the contexts that influence their actions (Maxwell, 2013). In this study I did attempt to understand (1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their feelings (Merriam, 2009, p. 23). The

study explored the unique perspective of students to understand how they viewed their chosen educational pathway. The research was guided by two over-arching questions:

RQ1: How do high school students describe their dual-enrollment experiences at a technical school?

RQ2: What are the perceptions of dual-enrolled high school students about factors that motivate or inhibit decisions to pursue dual-enrollment at a technical college?

Setting

The location for this research study was a College and Career Academy, which has been in operation for over ten years as an Employer Linked Charter School (ELCS) in the State of Georgia. This particular academy operated as a separate “free-standing” facility centrally located within the school district and nearby to a technical college campus, so that students can be transported conveniently from the multiple high schools in the county. This charter career academy maintains a strong partnership among local employers, the local school system, and post-secondary institutions in the region. The field setting was a common area inside the career academy, in a vacant classroom or office space which provided privacy for the interviews. An onsite visit was conducted several days prior to the sessions to work out the logistics and physical space requirements in the room where the interviews were to be conducted.

Participants

A purposeful stratified sampling technique ensured a proportional representation from each strata was included in the study to enable a comparison between subgroups within the population (Morse, 1991). This sampling procedure is defined as a selection of participants based on a particular purpose or set of characteristics (Tashakkori & Teddlie,

2003). Purposeful sampling will further ensure: typicality, heterogeneity of the population, illumination of motivational aspects, and productive relationships which will strengthen the volume and depth of responses (Maxwell, 2013). Sampling with this method will ensure that a proportional representation from each strata is included in the study. Participants will be junior and senior level (eleventh and twelfth graders in the 2017 school year) high school students who successfully completed (C or better) at least one class through dual-enrollment at the technical college. The following procedure was used to select the sample.

Dual-enrolled Students in Eleventh Grade

1. I obtained a listing of all eleventh grade students who successfully completed (C or better) at least one dual-enrolled course in the 2015 school year. The listing was verified to contain student identification, ethnicity, gender, and the name of the high school attended.
2. After obtaining the list, parental consent forms (Appendix C) were given to each student by the CEO at the career academy, along with participant invitation letters (Appendix D). This information provided an overview of the research intent, and explain the guidelines for privacy of the student participants.
3. A list of students who returned the parental consent forms was generated to form the potential participant roster. The return of parental consent forms was evaluated to indicate a willingness to participate.
4. I then stratified this group by ethnicity and gender and selected eight (8) students.

Dual-enrolled Students in Twelfth Grade

1. After obtaining the list, parental consent forms (Appendix C) were given to each student by the CEO at the career academy, along with participant invitation letters (Appendix D). This information provided an overview of the research intent, and explained the guidelines for privacy of the student participants.
2. A list of students who returned the parental consent forms was then generated. The return of parental consent forms was verified to indicate a willingness to allow their child to participate.
3. I then stratified this group by ethnicity and gender and selected seven (7) students.

The proposed sample of 15 students was selected to ensure a 40 percent male/60 percent female ratio that was generally consistent with the overall dual-enrollment population within the local county school system. Accordingly, the sample mirrored the racial representation of dual-enrolled students in the local county school system (Georgia Department of Education (2017). Table 1 summarizes the population data from the three high schools.

Table 1

*County School System Characteristics (number of students):
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	<u>Gender</u>	<u>White</u>	<u>Black</u>	<u>Other</u>	<u>Total</u>
High School #1	Female	885	325	251	1,461
High School #1	Male	851	345	250	1,446
High School #2	Female	693	276	97	1,066
High School #2	Male	702	309	114	1,125
High School #3	Female	659	108	120	887
High School #3	Male	655	121	119	895
H.S. Totals		4,445	1,484	951	6,880
Percent		64.6%	21.6%	13.8%	100%
Total Female					3,414
Percent Female					49.6%
Total Male					3,466
Percent Male					50.4%

To assess any variability among classes, approximately half of the interview sample were eleventh grade students with the remainder selected from twelfth graders. At least one student from each of three participating high schools was included in the sample. The following table indicates the characteristics that would need to be considered in this sample population.

Table 2

Sample Characteristics (number of students)

Gender		Race			Grade	
Male	Female	White	Black	Other	11 th	12 th
6	9	7	5	3	8	7

Data Collection

In this study, data was collected through a cycle of two, open ended and semi-structured interviews with each of the 15 participants. An interview protocol has been developed for both interview phases (See Appendix A).

Permission to Initiate Study

Prior to the initiation of the study, full approval was attained by the Valdosta State University and Coweta County Schools IRB processes (See Appendix A). This study did adhere to the guidelines involving human subjects, and shall be compliant with the U.S. Department of Health and Human Services Code of Federal Regulations, 45 CFR § 46.102(2009). IRB approvals from Valdosta State University and the Coweta County School District were obtained before any phase of research was initiated.

Interviews

Two interview sessions were held with each participant at the prescribed location. This format allowed for depth and ensured participant responses were meaningful when placed in the context of their lives, as well as the lives of those around them (Seidman, 2006). The open-ended interviews focused on motivations, perceived advantages and disadvantages of dual-enrollment, and a rich description of their dual-enrollment

experience at a technical college. Semi-structured interviews were conducted with each of the participants so that the topic could be stratified as levels of understanding were gained. All interviews were electronically recorded and subsequently transcribed to preserve complete feedback from the students. Student names did not appear in any written document associated with the study. Each session was planned for sixty minutes, with time to further expound on themes which might be uncovered by the participants. All sessions were conducted in a vacant administrative office onsite at the College Career Academy during the students' normal schedule.

First Interview

Prior to beginning the interview, I read a student assent statement, which provided information about the study as well as the rights of the participants to discontinue at any time and to decline to answer questions if they so desired. The first interview session served to orient participants to the area of research, explaining that the main focus was to understand their perceptions of college course work, impressions from fellow students, and dual-enrollment experiences at a technical college.

Second Interview

The second interview essentially built on the foundational information gained in the first session with an emphasis on understanding their background, motivating factors that attracted them to dual-enrollment, and inhibiting factors, both internally and externally, that might prevent other students from pursuing this pathway.

At each interview session, an introductory message given to highlight the theme that was to be explored. The areas for each session was structured to build upon the former, with the outline of individual backgrounds and preferences, internal and external

motivations related to their decisions to participate in dual-enrollment courses. The student interviews were accomplished over the course of a three week period during regular class schedules at the career academy with one session planned per week during spring semester of 2017. Several actually stretched into a third week due to changes in school schedules involving the participants.

The administration of each portion of the data collection was effectively managed to ensure the proper respect for the participants, host high schools, and the overall environment where the research took place. Each student was assigned a number and their names did not appear in interview transcripts so their privacy would be protected due to any publications that might arise from the study. Privacy was an important consideration in all interview sessions, and ethical considerations were paramount in both strands. Each interview question was linked to the primary research question themes according to the following structure.

Interview Questions/Research Questions Alignment

RQ 1: How do high school students describe their dual-enrollment experiences at a technical college?

1. Describe a typical day in your life, and tell me about going to high school and also attending a college class on the same day. Start from the time you wake up until the time you go to bed, and tell me what you are doing and where you are going.
2. That is a very busy schedule. How do you spend your time on the weekend?
3. What pathway have you chosen?
4. Why did you decide to choose that particular pathway?

5. What classes have you taken at the college?
 6. Which class was your favorite so far? Why?
 7. In what ways are your college classes different from your high school classes?
 - a) *If they need prompting*- are the college classes harder? If yes, in what ways?
 - b) Easier? In what ways?
 - c) How are the college teachers different from your high school teachers?
 8. How do your friends, those who are not taking college classes, feel about you taking college classes?
 - a) Why do you think they feel that way?
 9. Has anyone made you feel bad about choosing the dual-enrollment option? Tell me about that.
 - a) How does that make you feel?
 10. What would you say to other students (peers) about the dual-enrollment pathway?
 11. How would you recruit students to consider this experience?
- RQ2: What are the perceptions of dual-enrolled high school students about factors that motivate or inhibit decisions to pursue dual-enrollment at a technical college?
1. Tell me about your family.
 - a) Did either of your parents go to college?
 - b) Do you have brothers or sisters who went to college?
 - c) Has anyone in your family graduated from college?
 2. When you were growing up, before you started high school, did you ever think about going to college?
 - a) If yes, tell me about that. Where do you think those ideas came from?

- b) If no, why do you think going to college didn't enter your mind at that time?
3. As a child, what did you want to do when you grew up?
4. Why was that profession attractive to you?
5. I want you to think back to the first time you heard about dual-enrollment.
 - a) How did you first learn that you could be a dual-enrolled student?
 - b) What was your first reaction to this idea? Why do you think you felt that way?
 - c) Who discussed dual-enrollment with you?
6. What person(s) have most contributed to your decision to select the dual-enrollment pathway? How did they (ex: high school counselors, college recruiters, and parents/guardians) influence you in such a strong way?
7. Why do you think some students decide not to be a dual-enrolled student at the college?
8. Describe any barriers that make it difficult for some students to participate in dual-enrollment at the college?
9. In your opinion, what or who influenced their decision not to participate in dual-enrollment?
10. Describe any people or experiences that made it difficult for you to become a dual-enrolled student? Explain.
11. In what ways, if any, has your perception of college changed as a result of being a dual-enrolled student?
12. What information would have been helpful for you to know as a student prior to enrolling in college?

13. What advice would you give to other students about dual-enrollment, before they begin their first class at the college?

Interviewer/Researcher/Process

My background with the Technical College System of Georgia has provided me with the opportunity to lead and administer dual-enrollment partnerships at three post-secondary institutions. Working with sixteen different school districts across two Regional Educational Service Agencies (RESA), I have had the privilege to see a multitude of students that have chosen the dual-enrollment pathway. Additionally, I have served in senior administrations at two colleges with input into legislation that has been crafted to further support dual-enrollment efforts in the State. The most recent example is the “Move On When Ready” initiative (commonly referred to as MOWR), which further provides incentives for student and secondary school participation. The new MOWR Dual-enrollment Program streamlines the existing dual-enrollment options (Accel, HOPE Grant, etc.) into one program with one funding source. By consolidating the existing programs into a single program, it will be easier for students and parents to navigate and take advantage of the available options to enroll in college courses while still in high school. MOWR also includes provisions to help remove some of the financial barriers that may prevent students from participating in dual-enrollment (Technical College System of Georgia, 2015). Such experiential knowledge most certainly was applied in this research study, although I recognized the potential for bias and did work to negate their influence. As Maxwell points out, separating one’s research from other aspect of one’s life cuts off a major source of insights, hypotheses, and validity checks (Maxwell, 2013, p. 45).

The very structure of the multiple interview series approach did verify authenticity of responses by allowing exposure to students over several weeks of a school semester. The student responses over the course of this process allowed observation of syntax, diction, and even nonverbal aspects that shall assist me in developing confidence in such authenticity (Seidman, 2006). My assumption coming in this research about influences and motivations among the student population was naturally based on my experiential knowledge of managing dual-enrollment over the course of seven years in administration in this arena. Researcher bias, given my background, was mitigated through the open ended structure of the interviews and the review of responses by the CEO at the career academy. Furthermore, there has been no direct involvement with the participants prior to this study, and concerns over reactivity should not be a factor. Any student perceptions relating to my position as a college leader was thoughtfully used in a productive fashion to add credibility when dealing with the participant interactions. After the data had been analyzed according to categories and themes, I then asked the CEO of the career academy to serve as a reliability partner. Again, the discussion and review of interview data with the CEO further assisted in controlling or noting any reactivity issues.

Data Processing and Analysis

The specific process for analysis followed a proven method: (1) initial examination of interview data by reviewing the transcript and related materials, (2) highlighting the text that is pertinent to the research questions, (3) coding the data by placing labels on the noted text, (4) grouping similar themes from the coded text, (5) connecting the interrelated themes, and (6) forming a narrative that brings together the themes that are prevalent (Seidman, 2006). This will verify that the trends and themes

uncovered in the study align with general observations of the local experts, such as the CEO of the college and career academy, and the local high school counselors. The intent was to integrate the common themes which might exist among the participants, and gain a depth of understanding from a student's perspective.

Initial Cycle Coding. The initial coding process addressed attributes as the essential information from the data to include; demographic characteristics, dual-enrollment participation, participant characteristics, and method characteristics. Descriptive, thematic, and initial coding gathered during the qualitative analytic phase helped to form the adapted methodological process (Saldana, 2009).

Secondary Cycle Coding. Second cycle coding served to re-code the initial, descriptive, and thematic codes from the initial coding cycle. Comparisons and hierarchies then served as components for the attribute data tables and comparative analysis. This formed the theoretical models and perceived relationships that generated the secondary cycle coding data (Saldana, 2009).

Theoretical Coding. Once the descriptive codes were aligned into thematic codes, they were divided along the two constructs of dual-enrollment participation, with further division around the qualitative research questions (RQ1 and RQ2).

Axial Coding. During this phase, the relationships of dual-enrollment participation were coded against the motivational aspects, perceived benefits, and support network for dual-enrollment as reported in the interviews. Axial coding then served to sort, synthesize, and organize the information. Axial coding filled the gaps where other coding techniques fracture, and essentially formed the taxonomy and grounded theory for the qualitative strand (Saldana, 2009).

Trustworthiness

The strength of qualitative validity and trustworthiness is based on determining if the findings are accurate from the perception of the researcher, participant, and the readers (Creswell, 2013). Triangulation, iterative questioning, peer debriefing, and member checking were used to increase the trustworthiness of findings and process.

Triangulation

Triangulation is defined as examining multiple data sources to build justification for the themes in the data analysis (Creswell, 2003). This study included a variety of participants from all three high schools, different grade levels, and participants who had chosen different programs of study in various dual-enrollment pathways at the technical college/ career academy.

Iterative Questioning

Iterative questioning is a process used to ask additional questions based on participant responses in the interviews (Shenton, 2004). An interview protocol was used to guide interviews but also deviated from the questions and probed deeper based on the responses of individual participants.

Peer Debriefing

Creswell (2013) described peer debriefing as identifying a person to review the study and ask questions about the study to add validity to the study. The Chief Executive Officer (CEO) of the career academy was asked to review emerging themes and provide any alternative views of data interpretation. Using multiple views for analysis reduces the potential for bias by a single researcher who collects and analyzes the data (Patton, 2002).

Member Checking

After each interview with participants, the interviews were transcribed. Once the transcription was complete, I recapped and reviewed with the participants to ensure the data was accurate according to their responses. The participants were also asked to review a narrative summary of their interview from the initial interview cycle to verify the accuracy of my transcription prior to beginning the second session.

Summary

In this study, an interpretive qualitative approach was used to discover perceptions and experiences of current students who had chosen to participate in dual-enrollment programs at a technical college. Furthermore, I wanted to understand the perceptions of dual-enrolled students, along with motivational factors that caused these students to pursue a dual-enrollment pathway at a technical college. This research was focused to determine if any motivational variations existed, and what common themes might be prevalent among the participants. This study was intended to address the issue from a student perspective, and provide additional data on the motivational aspects that might contribute to this accelerated college experience in the future.

The chosen site for this study was an established college and career academy operated in partnership with a technical college in the southeastern United States. The participants were comprised of junior and senior level students who had successfully completed at least one dual-enrollment class (“C” grade or higher) with the technical college. This sample was selected to closely mirror the overall demographics of the local school system in terms of gender and race, with participants divided equally between junior and senior grade levels. All students in this study were volunteers who were not

compensated for their efforts. The timeline in collecting and analyzing the data was 5-7 weeks. Based on this data, Chapter 4 will explore results of the study and a discussion of those results will follow in Chapter 5.

Chapter IV

RESULTS

The purpose of this study was to describe dual-enrollment experiences at a technical college, and identify factors that motivate or inhibit high school students' decisions to participate in dual-enrollment classes. The first three chapters of this dissertation introduced the advantages of dual-enrollment at a technical college as it related to workforce development, a review of the literature surrounding the motivational aspects of dual-enrollment, and the methodological design utilized in this study. The findings that emerged from this qualitative analysis of data collected through semi-structures interviews will be presented in this chapter.

Results of Interviews with Dual-enrolled Students

Fifteen dual-enrolled students at the college and career academy were interviewed in two separate sessions for a total of 30 interviews. Each session followed the protocols outlined in this study (See Appendix B). Participants were all enrolled at one college and career academy as technical college students in the spring 2017 semester. To align with the demographics found in the local school system, school administrators assisted in providing guidance and data on the student population. According to such alignment, eight selected participants were male and seven were female. Ethnicity was further chosen accordingly with seven participants being Caucasian, five identified as African American, and three identified as Other Race. Finally, a balance of eleventh and twelfth

grade students were selected for this study with eight participants being juniors and seven being seniors at their respective high school. Further diversity was driven by pathways of study as dual-enrollment for the students, and all three high schools in the local school system were represented by these participants. Table 3 shows the demographics of the participants in this study.

Table 3

Participant Demographics

Participant	Gender	Race	Grade	Program Pathway
1	M	W	11th	Automotive
2	F	AA	11th	Cosmetology
3	F	W	12th	Dental Assisting
4	F	W	11th	Dental Assisting
5	F	W	12 th	Welding
6	M	AA	12 th	Dental Assisting
7	F	AA	12 th	Nurse Aide
8	M	Other	11 th	Welding
9	F	W	11 th	Dental Assisting
10	F	AA	12 th	Cosmetology
11	M	W	11 th	Automotive
12	M	Other	12 th	Automotive
13	M	AA	12 th	Automotive
14	F	W	11 th	Dental Assisting
15	F	Other	11 th	Nurse Aide

Brief Profiles of the Interviewed Students

Student 1

This participant identified himself as a senior, and shared that his parents were both college graduates. He stated a long-term passion for automotive technology and took advantage of dual-enrollment to pursue skills in this area. During the interview this participant emphasized that college instructors treated him “more of an equal” and that they were “focused on careers.” This student also felt it important to provide prospective students the opportunity to “experience the labs firsthand” with visitor passes being issued to allow them time to mix with current students.

Student 2

This female was a junior that chose the cosmetology pathway, and enthusiastically described her passion for working with hair since a small child. She mentioned that her mom had helped her style hair of family members as she was growing up. “In college, they respect you as an adult,” she referenced confidently. This seemed to relate to her feeling of independence, as she stated “you have to motivate yourself to do your own work. It is your job to learn and study.” Both of her parents graduated from college, and she relayed that her older brother was currently enrolled in college.

Student 3

This participant identified herself as a dental assisting student with considerable pride for her program of study. She praised her college instructor, and mentioned several times that it had changed her attitude about going to school. “It sets you up for the real world. Instead of just learning this math problem that you’re not going to use for the rest

of your life, I actually learn things that I can apply in my career,” she stated. She also stressed that her recruitment was due to the fact that she got to see the lab space, and encouraged future students have the opportunity to go into the labs and interact with students.

Student 4

This female participant was a senior who relayed she has taken many core classes as a dual-enrollment student and was excited to now pursue a pathway for dental assisting. She had previously been home-schooled prior to learning of opportunities for dual-enrollment, and mentioned that a big shift had occurred with her “now taking more responsibility” for assignments and coursework. Both of her parents were identified by the student as college graduates, and her twin brother is also dually enrolled at the same location. Her drive to graduate from college stemmed from her mother’s encouragement which stressed a good career required college. She mentioned that her father had also relayed a similar message for success.

Student 5

This female student became interested in welding after dating a guy that was taking classes at the same location. She indicated that he got her interested in taking classes as a result of telling her about the program. As a junior, she enrolled in the pathway with plans only to earn a certificate while in high school. Her college experience was expressed as more enjoyable due to the freedom and flexibility offered. This student was especially motivated by the opportunity to earn a college certificate that could immediately lead to a career.

Student 6

This male student shared he was in the dental assisting pathway with a desire to become a dental hygienist one day. He relayed that college classes seemed much more focused than his high school sessions, requiring more independence from the students. This student emphasized that relaxation was not part of his nature, and he continued to study over the weekends to keep ahead of the work assignments in his college coursework.

Student 7

This nurse aid student conveyed a long-term desire to work in the nursing field. In the first interview, she mentioned that her mother and grandmother were both nurses. Watching them as a child, she was impressed with their roles in caring for others. This participant stated her ultimate career goal is to become a neonatal nurse practitioner. She liked the faster pace of the college level nursing classes, and feels she is accomplishing her goal each day she is in class. Her advice to recruit participants for the dual-enrollment pathway centered on “student to student” communication.

Student 8

As a person that enjoys working with his hands, this male student mentioned he was pursuing a career in the welding field. Neither of his parents attended college, and he is the oldest among his siblings. He affirmed that by completing his college pathway, he would be the first post-secondary graduate in his immediate family. In the second interview, he commented that some of his friends mentioned the dual-enrollment pathway and first encouraged him to investigate it.

Student 9

This female student conveyed her pathway as dental assisting with a desire to pursue this career once she graduates. She mentioned how much her college instructor had motivated her, relaying that she felt the faculty really enjoyed teaching their subjects. Her mother's role as a nurse impacted her as a young child, and started her thinking about helping others when she grew up. From some of her friends already dually enrolled, she learned of this early college opportunity and relayed complete satisfaction in making this decision to join them.

Student 10

This female student identified that she had been interested in the field of cosmetology from the time she was little kid. For that reason, she pursued the opportunity to try it as a dual-enrollment pathway and confirmed that she really liked it. She relayed that her grandmother first interested her in this field, although she emphasized her grandmother had no formal training. As for her college classes, this participant felt that the college instructors were much more focused in the classroom. As for recruitment opportunities, this student felt that Instagram and Twitter should be used extensively, along with invitations for prospective students to experience dual-enrollment pathways through career day events.

Student 11

This senior level male participant selected an automotive dual-enrollment pathway, and he actively works in the repair industry currently. He relayed his job at a small, local automotive shop gives him experience that complements his studies at the career academy. In addition, he races cars on the weekends around dirt tracks all over the

southeast United States. With the support of his family, he mentioned fond memories of working around cars since he was seven or eight years old. He stated one major difference with his college instructors is the amount of trust extended to students. His explanation detailed that they “leave you alone to accomplish more things.” This participant relayed that such freedom allows students to truly pursue their career interests. Furthermore, he stressed the importance of using face to face experiences to engage with potential dual-enrollment students. Having them observe current students in the lab is the best recruitment tool according to this student.

Student 12

This male student expressed his desire to serve in the military with specific interest to become a combat engineer. For this reason, he sought a pathway that would help him in that pursuit. He was introduced to the automotive programs by a friend, and stated that he is enjoying the dual-enrollment opportunity. Since he was recruited by a friend, his view on recruitment of new students is ideally a face to face encounter. Since the dual-enrollment opportunities are rooted in career paths, he feels students are more committed.

Student 13

This participant relayed that in addition to pursuing a dual-enrollment pathway in automotive, he also works part-time at a local AutoZone center. His interest in automotive repair began when he was six years old, while watching family members work on cars. This participant has a clear view of his career, with plans to enroll at Universal Technical Institute after graduating from high school next year. The aspect of “free college” also attracted him to consider dual-enrollment, as he stated everyone

should consider such an opportunity. He further responded that his college classes were more demanding, and instructors seemed to focus more on student success than high school faculty.

Student 14

This female student identified herself as a cosmetology student in the dual-enrollment pathway. She stated that even as a small child, the need to pick an enjoyable career occupied her thoughts. Looking at makeup videos on YouTube peaked her interest in a cosmetology career. She mentioned that dual-enrollment classes “focus on something that a student actually desires to do.” This hands-on style of learning definitely appealed to this student, and through the interview her passion for this style of learning was mentioned repeatedly. Her recruitment approach for future students centered on showing a “day in the class,” whether in person or via video or social media.

Student 15

This female participant shared her passion for the healthcare field, and currently is enrolled in the nurse aide pathway as a dual-enrolled student. She hopes that this program will help guide her in making a decision about the nursing specialty or concentration. Originally, she wanted to become a physician, but decided that career might be too difficult for her. She remarked that her friends are impressed when they see her wearing scrubs to school, and some have decided to enroll as a result of this. She believes that social media can be a great recruitment tool, but stated there is no substitute for prospective students speaking directly with those currently enrolled about their experiences in dual-enrollment.

Themes from Student Interviews

Transcripts from all the interviews were analyzed according to an initial coding process that assimilated data to include the profile of each student including such items as demographic characteristics, dual-enrollment participation, and participant characteristics. Following this analysis, data were sorted according to thematic codes with comparisons and hierarchies forming a comparative analysis, and themes were divided according to both qualitative research questions (RQ1 and RQ2). After Initial and Secondary Cycle Coding was accomplished for both research questions, Axial Coding helped to further define the relationship of the student's participation in relation to the motivational aspects, perceived benefits, and support network that helped to drive them towards this educational pathway.

Final axial coding synthesized and organized the themes according to the motivational aspects, perceived benefits, and support network for dual-enrollment as reported in the interviews. Prominent themes from the interviews are referenced below, including the actual quotes from students. Prominent themes were shared with a high school coordinator and the CEO of the Career Academy. He agreed with these conclusions which seemed to align with student surveys, observed behaviors during interactions with students, and comments encountered firsthand with dual-enrolled students.

Research Question 2: How do high school students describe their dual-enrollment experiences at a technical college?

Dual-enrollment Experiences/Independence

The first research question explored student experiences and compared their prior high school perceptions with those of a college classroom atmosphere. Increased independence was conveyed throughout the interviews and appeared across the range of career pathways. It was quite evident their feelings of independence influenced motivation levels in a positive manner. Motivational and self-worth theories noted in prior research were confirmed through this study as the majority of these dual-enrolled students relied on an internal drive for career as their self-determination to succeed.

Four prominent themes emerged from this research question: It's my job to learn, being serious (career emphasis), teacher trust, and shadowing. All participants made some reference to the levels of increased independence with seven making some mention of a self-imposed drive to complete their assignments. A second theme centered on students' emphasis on career which seemed to be entrenched in the dual-enrollment pathways. Participants repeatedly discussed their career interests with a sense of passion afforded by the opportunity to get closer to their aspirations through the dual-enrollment experiences. A third theme related to the freedom extended by their college faculty which seemed to stem from a trusting relationship with dual-enrolled students. The surprising element from this theme was the distinction that participants made between their high school and college faculty. Students used terms such as "respect" (Student 2) and "trust" (Student 11) to describe the approach used by college faculty;

Finally, a fourth theme emerged around the important aspect of allowing prospective students extended time in dual-enrollment labs to interact with current students. Nine of the participants referenced the importance of allowing prospective

students the opportunity to directly engage by shadowing currently enrolled students inside the college and career academy labs.

Overall, these themes were present in the majority of responses as evidenced below with representative quotes from participant interviews. Table 4 includes quotes representative of participants’ responses under the learning as being the students’ job. Subsequently, Table 4 lists prominent quotes that identify themes related to: *it’s my job to learn, career focus, faculty trust, and shadowing* respectively.

Table 4

Increased Independence

Theme	Quotes
It’s my job to learn	<p>“They don’t stay on your back telling you like they would in high school telling you this is due, this is due, make sure you have this done. They just tell you what you need to do and all the work part is up to you.” (Student 1)</p>
	<p>“In college, you have to get it...you have to motivate yourself to do your own work. It is your job to learn and study. It requires a lot more independence.” (Student 2)</p>
	<p>“They don’t micro-manage you. You’re responsible for keeping up with your grades and all that. You know, they don’t remind you to turn in all that stuff.” (Student 4)</p>
	<p>“One thing, it is giving the student more independence, giving you full responsibility of your own actions.” (Student 6)</p>

Career focus

“I would say that depending on the career you want to go with, it could definitely be helpful and for anyone who wants to take college classes early, it saves you time and money.” (Student 1)

“It definitely sets you up for the real world. Instead of just learning this math problem that you’re not going to use further in life, I actually learn things that I can use in my career.” (Student 3)

“I feel like they’ve (friends) looked up to me a lot more than they used to, they see that I’m really trying to make a difference in my own life and get an early start in my career.” (Student 6)

“All my college instructors just wanted us to do good because they see it as a potential career.” (Student 11)

Faculty trust

“It’s a lot more freedom and independence whereas in high school, teachers guide you through a lot of stuff.” (Student 2)

“Like you’re a college student so the teachers trust you to leave you alone to do more stuff.” (Student 11)

“They (college faculty) tend to treat you more of an equal because high school teachers will talk down to students and make you feel inferior whereas college teachers see you more as an equal and in general seem more focused.” (Student 1)

“In college, they (college faculty) respect you as an adult.” (Student 2)

“Our (college) instructors help us out more here at CEC. I feel like the teachers know that the students want to be over

here so they're more motivated to help."
(Student 9)

Shadowing

"I would probably just honestly recommend they come in and get a visitor's pass. I don't know if it's within the policy. I would walk them through and show them the different programs here." (Student 1)

"Telling your own experience. Getting personal with the student. Not just having an administrator telling you about it when they've not been there themselves. Actually learning in a class so you need a student telling a student." (Student 7)
"I'd bring outside people in and show the students you can make a living and a career out of automotive or welding, or any of the college programs offered here." (Student 11)

"Yeah, it's free college. And a tour and showing them how to do anything in there. And with the class they want, the answer is then take them to that class, give them a tour, like the whole day tour. They stay there the whole day." (Student 13)

"Show a digital video of like a day in the class, so we get the students that are really in it to tell you they think about it, and honestly show you their work. Also, let people come in the classroom." (Student 14)

Research Question 2: What are the perceptions of dual-enrolled high school students about factors that motivate or inhibit decisions to pursue dual-enrollment at a technical college?

Motivational Factors

In the second research question I explored participants' perceptions regarding factors of motivation that encouraged or inhibited their pursuit of dual-enrollment at a technical college. Nine of the participants mentioned that family or close friends had encouraged them to pursue this early college experience. Others spoke of the potential intimidation of taking college courses as reasons some do not choose such pathways. In related fashion, eight of the participants mentioned they had gained confidence and felt more comfortable in moving forward with college as a result of the dual-enrollment experience. Several also specifically mentioned they had confirmed their passion for a chosen pathway by participating as a dual-enrolled student at the technical college. As a result, the themes surrounding motivational aspects were formed around the prominent concepts; *family and friends influence, fear of entering college, ready for college, and ready for a career*. Participant responses are listed below in Table 5 highlighting prominent quotes identifying themes generated from Research Question 2.

Table 5

Motivational Factors and Impressions

Theme	Quotes
Family and friends influence	"I always wanted to do it. My sister is six years older and she dual-enrolled and I thought it was interesting as a young age that she could do it (dual enroll)." (Student 3)
	"Cause my mom told me that she wanted me to go to college and finish out because she didn't." (Student 4)
	"Seeing my mom in a nurse's office and helping and all that. I think it really

showed me that I wanted to do stuff like that; I wanted to help people.” (Student 9)

“She (mom) kept telling me that it would look so much better whenever I actually go to college that I’ve already done it. She just kept pushing me to do it, and get the paperwork done.” (Student 15)

“Friends, they come to talk with you from the Career Academy, and it started to get me curious about it.” (Student 9)

Fear of College

“Yeah, I’m not as scared now. I thought the teachers would be super hard.”(Student 3)

“Yeah, intimidating. And then you get to see what everybody else has going on in their life and I don’t know, it makes it easier.” (Student 4)

“Sometimes they are not emotionally ready for it, that kind of stress. You have to present yourself in a more professional way than you would if you were just in high school where you are around multiple kinds of groups and categories and stereotypes.”
(Student 6)

“yeah, paperwork...I think their own thinking that they’re not good enough to go (college) and do it or they’re not smart enough, due to their self-thought and self-perception.” (Student 14)

Ready for College

“Dual-enrollment has made me more ready to continue in college, to be honest.” (Student 13)

“I look at it (college) as more of a relaxed atmosphere...it made me feel

more comfortable and confident to ask questions.” (Student 2)

“I don’t want to say I don’t try in high school, but it just comes easy to me...and then, college classes, I have to put my mind to it.” (Student 11)

“At least at this college it seems more personal and the classes are nice sized. I really do like the program I’m in because the teacher is really one-on-one and I’m able to learn a lot by hands-on experience.” (Student 14)

“She (mom) kept telling me that it would look so much better whenever I actually go to college that I’ve already done it. She just kept pushing me to do it” (Student 15)

Ready for Career

“It’s definitely really good option if you’re trying to get out and get a job and you know, move quickly on with your life instead of just being in high school, you can go ahead and pursue whatever career you want to.” (Student 5)

“In high school you feel like you don’t need to speak up because nobody really answers any questions and nobody really cares in high school. Then you get here and everybody’s caring about their grades or about their future.” (Student 3)

“How you do in school affects you outside of school too. You get on the job and that’s when it gets you.” (Student 11)

“There are many more electives that were geared toward career choice, and they didn’t have that at my old school.” (Student 7)

Summary

In this chapter results of interviews were presented from both interview sessions with each of the fifteen participants. Data from these sessions were used to answer the two research questions in this study. Initial coding provided student profile data according to each question. Overarching themes were then developed by combining predominant responses into categories based on the focus of each research question. In Chapter 5, discussion and implications of this study for practitioners are explored. Likewise, recommendations for future areas of research surrounding this topic will also be highlighted.

Chapter V

DISCUSSION AND CONCLUSION

The value of dual-enrollment has been recognized by employers as a way to complement workforce development initiatives and get future employees prepared at an earlier age (Boettcher, 2014). Institutions of higher learning have also understood dual-enrollment keeps students better engaged in high school with graduation rates being much higher for this population (Barnett, & Stamm, 2010). Such attitudes towards student success have brought technical colleges to the forefront of the discussion because of their linkage with workforce development across the country.

Two-year technical colleges have long been, and will continue to be, regarded as the cradle of skilled workers and gateway to further postsecondary education, yet empirical research on how to assist these students in progressing into this post-secondary world has been extremely scarce (Wang, Chan, Phelps, & Washbon, 2015). Dual-enrollment can provide an accelerated path towards a career for those who enroll in trade and technology programs while decreasing graduation time from college and into the workforce, cutting college costs for parents and taxpayers alike (Kronholz, 2011). With a focus on workforce development at most technical colleges, attracting high school students is a natural extension of recruitment efforts nationwide.

This study was designed to identify and explore high school student's perceptions of their dual-enrollment experiences in a technical college environment, and identify those factors that motivated or inhibited the decision to enroll in such classes.

In this chapter, I will discuss the implications for educators based on the findings from this study, as they search for ways to more effectively recruit students into dual-enrollment pathways. In so doing, more students will hopefully choose dual-enrollment as a preferred and viable option for their career development.

Discussion

Data collected from the fifteen, high school students currently dual-enrolled at a technical college were used to answer both research questions. The implications based on the findings of this study are presented and discussed below.

Four overarching themes emerged in response to the first question of this research: How do high school students describe their dual-enrollment experiences at a technical school? These themes centered on accountability to learn, career focus, faculty trust, and shadowing. All of these themes related in some way to a feeling of increased independence on the part of students.

It's My Responsibility to Learn

The majority of students made some comment about the accountability they felt in taking ownership for learning in the dual-enrollment environment. Student 2 summed it up by saying, "It's a lot more freedom and independence whereas in high school, teachers guide you through a lot of stuff. In college, you have to get it...you have to motivate yourself to do your own work. It is your job to learn and study. It requires a lot more independence." This was echoed by Student 4 who stated, "You're responsible for keeping up with your grades and all that. You know, they don't remind you to turn in all that stuff." These responses align with prior research which affirms responsibility increases self-efficacy.

Bandura (1995) linked a strong sense of efficacy with increased human accountability and personal well-being. People with confidence in their capabilities tend to approach tasks as challenges to be overcome rather than as things to be avoided. He concluded that children who possess high levels of efficacy often possess a deeper interest in activities and maintain a strong commitment towards them. Such thinking may actually play a key role in explaining why dual-enrollment students graduate at higher levels than the typical high school population. This feeling of accomplishment in linking a career aspiration with educational attainment was conveyed clearly by the participants in this study. Several students also mentioned that they felt more freedom in the dual-enrollment sessions, and thereby had to step up to perform successfully.

Career Emphasis

Elements of Incentive Theory (Bernstein, 2011) were confirmed given the number of students that spoke about dual-enrollment at the technical college as being linked to the end result of an aspirational career. Bernstein suggested an individual will work towards a goal if there is a perceived incentive at the end.

In my study participants talked about how the information they were learning was relevant to the career they aspired to attain. “I actually learn things that I can use in my career,” stated one of the participants. Twelve out of the fifteen students in this study spoke about investing in dual-enrollment pathways because they felt such behavior offered either the positive incentive of a career or acceleration of college credits. Once they began taking classes at the technical college their motivation to become engaged in learning increased. This aligns with Kahu’s (2013) discussion of engagement relative to a student’s awakened level of active involvement in a learning activity. This reaction

towards engagement confirms the relationship between their heightened levels of achievement stemming from an initial incentive to work on their career preparation and success in school. It was reinforced best when Student 6 responded, “I’m really trying to make a difference in my own life and get an early start in my career.”

Further emphasis on the linkage to an actual career was mentioned specifically by eight participants during the interview sessions. The incentive to have success in dual-enrollment at the career academy is seemingly equated to success in their future career endeavor. As one student relayed, “It kind of gets your feet into the real world.” Student 1 summarized by responding to interview question 10, “I would say that depending on the career you want to go with, it could definitely be helpful and for anyone who wants to take college classes early, it saves you time and money.”

Several students mentioned their college faculty had reinforced career opportunities would be available with a college credential which could be earned as a dual-enrollment participant. One student emphasized this point by saying, “All my college instructors just wanted us to do good because they knew we were working towards a potential career.” The overall emphasis on career evidenced through these quotes reinforce the principles of Incentive Theory and show the strong linkage between dual-enrollment and being prepared for a career of choice. This enthusiasm might add further weight to explain why dual-enrolled students have statistically higher success and retention rates when enrolled in career pathways (Fleischman, & Heppen, 2009). This long-standing view was further underpinned by a longitudinal study using a large federal dataset of 213,000 dual-enrollment students who graduated high school as far back as 1992. When compared with their peers, dual-enrollment students were 12 percent more

likely to enter college within seven months of graduation and 11 percent more likely to remain enrolled through the second year of college. Dual-enrollment students who entered college within seven months of graduating from high school were between 16 percent and 21 percent more likely to earn a bachelor's degree than non-participants (Barnett, & Stamm, 2010). The importance of placing emphasis on the incentive and reward of a career is evident even with the limited quantity of participants in this study. With employers beginning to view dual-enrollment as a recruitment strategy to fill the pipeline of skilled workers, it is little wonder they are having newfound interest in promoting the career aspects of this pathway.

A core idea of dual-enrollment is such programs raise students' academic motivation. Intrinsic motivation is essentially learning something for its inherent interest or enjoyment while extrinsic motivation is to learn something as a means to an end (Vallerand & Bissonnette, 1992). Motivation, especially intrinsic motivation, is also associated with positive schooling outcomes (Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004). The external focus on career seemed to be driving the students in this study to seek success in their dual-enrollment pursuit. Throughout the interviews, students mentioned their desire for a successful career. Data suggests this clearly is an area that should be central to any dual-enrollment recruitment efforts.

Faculty Trust

Participants consistently mentioned they felt different in their college classes, with several pointing to the manner in which college faculty treated them. Student 14 captured this sentiment as she relayed, "They don't push you to do anything you don't want to do...I guess they actually like what they do and it rubs off." In contrast, several

students mentioned that high school teachers “talk down to students” (Student 1) and “guide you through a lot of stuff” (Student 2). This distinction between high school and college faculty approaches might be another contributing factor in explaining why students take more ownership in the dual-enrollment environment. Based on responses in this study, faculty trust and willingness to grant some measure of freedom to students may be a prominent foundation for dual-enrollment program success.

Karp’s (2012) findings are consistent with other studies showing dual enrollees say they get less coddling in their college courses than in their high school courses. Dual enrollees tend to view their high school teachers as “parental figures” who are not only interested in their academic success, but also in their overall well-being. College instructors tend to focus more on specific learning areas and are less concerned with students’ general well-being (Huntley & Schuh, 2002–2003). In contrast to prior research findings, the students in this study relayed their dual-enrollment faculty were more concerned about their “well-being” and their desires to find their career focus than their high school teachers. Compared to other higher education environments, the model of the technical college system focuses more emphasis on “hands-on” lab applications. This creates the unique dynamic for faculty to act more like mentors or supervisors in working with students. Along with this, faculty are also focused on career placement which further instills bonding between the instructor and students. With much of the prior research not focused exclusively on dual-enrollment settings at a technical college/career academy, this might indicate why faculty were perceived more favorably in this study.

This trust in faculty would support the enhancement of self-efficacy helping students feel more freedom when developing a career interest. The expectation to

complete assignments essentially shifted to the student in the technical college environment, and participants reportedly accepted this level of ownership in a positive manner. Likewise, they attributed the attitudes of college faculty as generating this level of independence in themselves. One participant (Student 2) captured this feeling by saying, "...in college they respect you as an adult."

Shadowing

A third overarching theme dealt with perceptions on optimal ways to attract future students to consider dual-enrollment pathways at a technical college. In responding to interview question 11, participants mentioned the importance of allowing prospective students an opportunity to experience the environment. Several said that students should be given the opportunity to spend an entire day shadowing a student in their program of interest. Student 13 captured this sentiment in relaying, "take them to that class and give them a tour, like the whole day tour. They stay there the whole day." This student brought forth a sentiment conveyed by several whereby prospective student engagement was deemed critical, and understanding the environment through the eyes of a current student considered paramount. Interestingly, reassurance and confirmation by a current student seemed to be the missing link in many recruitment strategies according to these participants.

This aligned with a qualitative study by Karp (2012) whereby role and socialization theory helped to explain students' shifting conceptions of their role during their first semester of college courses. Karp found new college students little to base their understanding of higher education environments. As suggested by the participants in this study, increasing exposure in a college setting should help to make prospective students

gain confidence regarding their potential success in a post-secondary course of study. Several students mentioned more time should be devoted to allowing experiential opportunities for those considering a dual-enrollment path. The concept of an all-day “shadowing experience” was mentioned by a couple of participants.

Another perceptual aspect mentioned repeatedly by interviewees in the first interview session related to utilization of social media. Specifically, participants mentioned Instagram as a media format most frequently accessed by high school students. In conjunction with face to face experiences in the actual labs, students felt social media could play a role in attracting future students. Several mentioned using testimonials from current students in highlighting their programs of study. As an example, Student 5 suggested, “like a lot of apps on games people play, like they have ads that they have to skip through. I know a lot of people are on Instagram and using sponsored ads could focus (their attention) on dual-enrollment opportunities.” Student 2 responded, “I would use Instagram to recruit students,” and elaborated this was a social media platform of choice for all of their friends. As recruitment plans are developed, consideration must be given to the power of this vehicle for communication so heavily relied upon by the target population.

Research Question 2

The second research question in this study was: What are the perceptions of dual-enrolled high school students about factors that motivate or inhibit decisions to pursue dual-enrollment at a technical college? Through this series of interview questions, four overarching themes were presented relating to: family and friends influence, fear of entering college, being ready for college, and being ready for a career.

Family and Friends Influence

Students clearly were influenced predominantly by their close family members, with the majority of participants' mentioning their immediate family as the initial source of encouragement to pursue dual-enrollment at the technical college/career academy. In addition, three of the participants cited their friends and/or classmates as the initial source of encouragement in this regard. Far and away mothers were mentioned most often as the primary source of encouragement to pursue dual-enrollment at the technical college. Student 15 affirmed, "She (Mom) just kept pushing me to do it, and get the paperwork done." Another student relayed that her mother had encouraged her to begin college, because she wanted to see her daughter finish college because she (the mother) had never earned her degree. This dynamic was especially prominent in the case of female students with four of the five students (identifying mother as the encourager) being of this gender.

There was also evidence of intrinsic motivation stemming from family culture with a couple of students. Student 7 mentioned, "I think nursing runs in my family. My mom is a nurse, and my grandmother was a nurse too. And I don't know, I just wanted to be in the medical field since I was little." Student 6 relayed, "I always knew I wanted to be a dental hygienist, and maybe even a dentist at one point." The two student responses above show intrinsic motivation factors were still present in this participant group, and interestingly both of these were in the healthcare pathways.

Close behind the mothers' influence were the impact of siblings and friends in the decision making process to select dual-enrollment pathways. When asked about who most influenced her to register for dual-enrollment student 6 responded, "It was my little sister, she's a sophomore this year and was the first in my family to dual enroll. Wow,

you are studying to become a RN, and I could do the same thing and be a dental hygienist.” Others mentioned friends or classmates had influenced their decision to enroll with several mentioning they had dropped by the dual-enrollment labs to see their friends and became interested after seeing the areas. This reinforced another finding in this study revealing the importance of having prospective students spend quality time in the labs with those currently enrolled.

Fear of Entering College

Fear of entering college was another theme uncovered with this research question, as many students mentioned they were first apprehensive about starting college while still in high school. Five of the participants specifically mentioned this intimidation factor, with all of them stating that the experience had helped them to overcome their doubts about college. In her study of 26 dual-enrolled students, Karp (2012) found that role and socialization theory helped to explain how students shifted their role conceptions once entering college coursework. These participant’s responses confirmed Karp’s findings that students at the start of their first semester had vague notions of what to expect. This feeling of self-doubt is challenging for teenagers, especially if they have no foundation to begin a new journey such as dual-enrollment. When asked about barriers or obstacles to enrolling in dual-enrollment classes, several used terms such as, “intimidating, not smart enough, and not emotionally ready for that kind of stress.”

This fear of failure correlates with McClelland and Atkinson’s Achievement Motivation Theory suggesting that motivation to achieve success can overcome initial fear of the unknown (McClelland, Clark, Roby, & Atkinson, 1949, p. 39). Student self-efficacy was obviously bolstered once these participants gained confidence in their

abilities within the dual-enrollment setting at the career academy. One student's assessment of classmates/friends who did not pursue a dual-enrollment pathway because they doubted their intellect is especially concerning. This could also explain the success of the participants in this study, given their responses indicating a strong support network from family and friends. As one student relayed, "I have a large support network, sisters and parents, encouraging me to pursue my dreams." Another stated they have always "talked about going to college" through the encouragement of their mother and father.

Ready for College

One primary area of motivation stemmed from feelings of confidence garnered by participants as they began to move through the dual-enrollment experience. Not surprisingly, they felt more comfortable after getting into their programs of study. All participants in this study had successfully completed multiple semesters as a dual-enrolled student, and thereby provided a broader range of experiences. Another takeaway from this research included the importance of external associations which bolstered confidence in their journey towards a career.

Student 13 talked about a passion for automobiles, saying that he had worked on them since age six or seven. In fact, he relayed his family's connection with weekend racing, and auto repairs that seemed to be a passion around his house. His initiative to pursue a career in the automotive repair business was always strong, even working at an auto parts store after school and on weekends. However, this student admitted he was apprehensive about attending college, but now after becoming comfortable with the college instructor he gained confidence to further pursue college after high school. In fact, this student mentioned he has now even gained initial acceptance into a Florida

college focused on racing technology programs. This same student also boasted, “It's not hard (college); It's not work or anything. It's just something you want to be doing.” This sentiment was also confirmed in earlier research around student efficacy, and enthusiasm for dual-enrollment due to alignment with a student’s sphere of interest.

Student 6 made a very profound comment when stating, “It’s more of a class of varieties of people and I don’t mean just races, I also mean age as well. I think that’s the heavy hitter here.” While no other participant so eloquently remarked about the concept of diversity, it is certainly an interesting and unique characteristic of dual-enrollment as adults are sometimes mixed into the programs to balance enrollment needs of a college. In this setting, the student strongly felt it gave more depth to the learning environment, and helped younger learners gain confidence as they completed projects alongside adults. Another student remarked, “A girl in the dental assisting program first discussed the program with me. She actually told me how much she enjoyed it and how much she liked being in college class with a variety of ages.” This student echoed the comment to some extent, and reinforced the enhanced experience attributed to being around adult learners. Both relayed being around adults helped them to see themselves as college students, and prepared them to be more confident in even pursuing advanced degrees. One student had decided they now strived to become a physician, instead of a nurse, as a result of exposure into this dual-enrollment setting.

Another element of preparing students to be ready for college centers on the relationship of the educational partners. Throughout the interviews, it was evident there was a sense of pride in knowing the community, college, and school system all supported this dual-enrollment agenda. Preparing students for the college experience requires

strong, foundational partnerships between secondary and post-secondary institutions. The Kentucky Community and Technical College System (KCTCS) affirmed this position in their comprehensive, longitudinal study of key elements necessary to create and sustain collaborative dual-enrollment partnerships. Findings from this study offered evidence that implementing and sustaining institutional partnerships served as a unified mechanism to prepare and orient students for early college. It became obvious through the interviews that these participants truly wanted to be at the career academy, and seemed grateful for the opportunity. One student remarked, “You get here and everybody’s caring about their grades and about their future.” Another commented, “...if you have the opportunity of taking dual-enrollment just take it like as soon as you find out. I wish I would’ve found out earlier.” The setting for this study was known as a location with strong partnerships among educational entities, and this was reinforced through the data. None of the participants had any regrets about choosing dual-enrollment, and the majority shared they had already told friends about the advantages of attending this dual-enrollment site.

Ready for Career

A fourth theme relating to career readiness resonated from participants, with student 5 responding, “It’s definitely a really good option (dual-enrollment) if you’re trying to get out and get a job and you know, you can go ahead and pursue whatever career you want to.” This particular female student was pursuing a welding pathway in a career field dominated by males. When asked how she became interested in such a non-traditional field of study, she simply said she was “dating a guy who would talk to me about it (welding) and he got me interested.” She mentioned that her only college level desire is now to complete her courses in the welding and pursue a career in this high

demand career field. This seems to align with popular studies such as (Harnish & Lynch, 2005) which found one of the most common motivations for dual-enrollment participation centered on the desire to increase wage-earning potential both during and after college.

It should be noted this theme differed from the Career Emphasis theme under Research Question 1, as the emphasis on career arose from the environment created largely by the college faculty at the dual-enrollment setting in this study. This theme was primarily from the viewpoint of the participants as they experienced dual-enrollment firsthand. The attitude of the majority of participants in this research conveyed confidence they were being well prepared for a chosen career. Such perceptions of career readiness certainly sets dual-enrollment apart from traditional high school programs. On a couple of occasions, participants noted they took their role as a dual-enrolled student “seriously.” When asked about advice they would give future students, several made reference to “being serious” and “consider it your job.” The observation they viewed dual-enrollment as a job or start of a career may well answer help to answer why higher completion rates exist for such programs nationwide. Many two-year community and technical colleges are also linked closely with workforce development strategies, so their messages might also find success by linking these pathways to career attainment.

Limitations of the Study

This research study was limited by the willingness of these high school participants to express their experiences, feelings, and thoughts during the interview sessions. This study was also conducted at one technical college/college and career

academy in the southeast United States and findings are not easily generalizable to other two-year community or technical colleges.

Implications for Practice

Findings from this study affirm the positive value perceived by students in dual-enrollment programs at a technical college. As such, two-year and technical college administrators should consider engaging prospective students. Based on data from this study, student motivations to pursue such pathways are dependent upon perceptions of self-efficacy and linkage to career aspirations. Programs that build and promote visibility for career opportunities should be aligned with prospective students' interests. Consideration should be given for opportunities of increased independence among the dual-enrolled populations. Along with this, college faculty might be encouraged to build trust with dual-enrolled students by creating an environment that sets expectations for accountability and independence deemed important by these participants.

The influence of family and friends is a strong factor serving to encourage students into this pathway, and administrators should consider ways to further engage this group in any recruitment efforts linked to dual-enrollment. Attention should also be paid to students' apprehension of enrolling in college courses, with opportunities provided so potential students can meet with current students in dual-enrollment at a technical college. Preferably, recruitment plans should also include some opportunity for expanded time in the labs and classroom settings, so that prospective students can have a true shadowing experience alongside current dual-enrolled students. In order for dual-enrolled students to maintain positive perceptions of this pathway, strong foundations must exist between the secondary and post-secondary educational partners.

Technical colleges have recognized the importance of dual-enrollment in regards to meeting the needs of workforce development. Furthermore, college administrators understand the positive correlation dual-enrollment has on student retention and college completion statistics. Dual-enrollment is just one program that might be considered to impact these factors.

Recommendations for Future Research

Given strong employer demand for skilled labor, technical colleges need to learn more about student motivations towards dual-enrollment. One recommendation is to expand the participant pool across multiple dual-enrollment sites at the technical college that served as the basis for this study.

Secondly, there is a need to understand issues relating to those students that chose not to pursue dual-enrollment at a technical college.

A third recommendation might be to replicate this study in different settings, possibly at a two-year community or technical college with similar demographics in another region of the United States.

A final recommendation might be a replication of this study at the same technical college in five years to determine if any changes have occurred in the characteristics of dual-enrolled student perceptions relating this pathway.

Conclusions

The findings of this study support the value of dual-enrollment programs at a technical college as perceived through the lens of currently enrolled students. Further deliberation on all aspects of dual-enrollment considered in this study is advised. While emphasis is placed on student perceptions of their dual-enrollment experiences, the

overall foundational climate must be strong at the institutional level for such programs to thrive. As mentioned in the data, such programs demand a shared vision between all secondary and post-secondary partners to be successful. All partners must be fully committed to dual-enrollment as a viable pathway for career and workforce development.

Student feedback through this study indicated their pleasure with the freedom and independence granted by their college faculty in this setting. The need for such personal accountability is essential for satisfaction among students choosing such dual-enrollment pathways at a technical college. Faculty trust is a complement to this approach. Those considering dual-enrollment will readily engage when a strong bond is formed with the college educators. Even though participants were all successfully participating in dual-enrollment, there were still evidence of fear when first considering college level work. Therefore, there is need for sound recruitment practices that account for the unique apprehension felt by high school students when considering dual-enrollment registration.

The participant responses suggesting prospective students have more time, perhaps an entire day, to visit their program of study perhaps might alter this initial fear. As a researcher, I was reminded of a very insightful concept personally witnessed on several recent visits to Bavaria to see Germany's apprenticeship model for education. Students preparing to enter an apprenticeship had the opportunity to shadow someone currently enrolled in their selected pathway for an entire week. Future studies might consider replicating this practice to see the effects on students considering a dual-enrollment pathway.

Technical colleges embracing dual-enrollment opportunities will create more opportunities for high school students to graduate from secondary institutions with

college level credentials and degrees. This will support the critical needs of the United States economy by providing skilled labor being requested by employers across all industries. By understanding the perceptions and motivations of those students considering dual-enrollment pathways, technical colleges can better support student success and workforce development initiatives across the County.

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APPENDIX A:

Interview Session Questions / Protocol

Session 1

RQ1: How do high school students describe their dual-enrollment experiences at a technical college?

1. Describe a typical day in your life, and tell me about going to high school and also attending a college class on the same day. Start from the time you wake up until the time you go to bed, and tell me what you are doing and where you are going.
2. That is a very busy schedule. How do you spend your time on the weekend?
3. What pathway have you chosen?
4. Why did you decide to choose that particular pathway?
5. What classes have you taken at the college?
6. Which class was your favorite so far? Why?
7. In what ways are your college classes different from your high school classes?
 - d) *If they need prompting*- are the college classes harder? If yes, in what ways?
 - e) Easier? In what ways?
 - f) How are the college teachers different from your high school teachers?
8. How do your friends, those who are not taking college classes, feel about you taking college classes?
 - b) Why do you think they feel that way?
9. Has anyone made you feel bad about choosing the dual-enrollment option? Tell me about that.
 - b) How does that make you feel?
10. What would you say to other students (peers) about the dual-enrollment pathway?

11. How would you recruit students to consider this experience?

Session 2

RQ2: What are the perceptions of dual-enrolled high school students about factors that motivate or inhibit decisions to pursue dual-enrollment at a technical college?

12. Tell me about your family.

d) Did either of your parents go to college?

e) Do you have brothers or sisters who went to college?

f) Has anyone in your family graduated from college?

13. When you were growing up, before you started high school, did you ever think about going to college?

c) If yes, tell me about that. Where do you think those ideas came from?

d) If no, why do you think going to college didn't enter your mind at that time?

14. As a child, what did you want to do when you grew up?

15. Why was that profession attractive to you?

16. I want you to think back to the first time you heard about dual-enrollment.

d) How did you first learn that you could be a dual-enrolled student?

e) What was your first reaction to this idea? Why do you think you felt that way?

f) Who discussed dual-enrollment with you?

17. What person(s) have most contributed to your decision to select the dual-enrollment pathway? How did they (ex: high school counselors, college recruiters, and parents/guardians) influence you in such a strong way?

18. Why do you think some students decide not to be a dual-enrolled student at the college?

19. Describe any barriers that make it difficult for some students to participate in dual-enrollment at the college?
20. In your opinion, what or who influenced their decision not to participate in dual-enrollment?
21. Describe any people or experiences that made it difficult for you to become a dual-enrolled student? Explain.
22. In what ways, if any, has your perception of college changed as a result of being a dual-enrolled student?
23. What information would have been helpful for you to know as a student prior to enrolling in college?
24. What advice would you give to other students about dual-enrollment, before they begin their first class at the college?

APPENDIX B:
(IRB) Expedited Protocol Approval



**Institutional Review Board (IRB) for the
Protection of Human Research
Participants**

EXPEDITED PROTOCOL APPROVAL

PROTOCOL NUMBER: IRB-03428-2016

RESPONSIBLE RESEARCHER: Stephen Daniel

PROJECT TITLE: *Motivations for Dual-enrollment from a Student's Perspective*

APPROVAL DATE: 12.16.2016

EXPIRATION DATE: 12.15.2017

LEVEL OF RISK: Minimal More than Minimal

TYPE OF REVIEW: Expedited Under Category 6 & 7 Convened (Full Board)
CONSENT REQUIREMENTS: Adult Participants – Written informed consent with documentation (signature)
Adult Participants – Written informed consent with waiver of documentation (signature)
Adult Participants – Verbal informed consent
Adult Participants – Waiver of informed consent
Minor Participants – Written parent/guardian permission with documentation (signature)
Minor Participants – Written parent/guardian permission with waiver of documentation (signature)
Minor Participants – Verbal parent/guardian permission
Minor Participants – Waiver of parent/guardian permission
Minor Participants – Written assent with documentation (signature)
Minor Participants – Written assent with waiver of documentation (signature)
Minor Participants – Verbal assent
Minor Participants – Waiver of assent
Waiver of some elements of consent/permission/assent

APPROVAL This research protocol is **approved** as presented. If applicable, your approved consent form(s), bearing the IRB approval stamp and protocol expiration date, will be mailed to you via campus mail or U.S. Postal Service unless you have made other arrangements with the IRB Administrator. Please use the stamped consent document(s) as your copy master(s). Once you duplicate the consent form(s), you may begin participant recruitment. **Please see Attachment 1 for additional important information for researchers.**

Elizabeth Ann Olphie 1/9/17

Thank you for submitting an IRB application. irb@valdosta.edu or 229-259-5045.

Please direct questions to Elizabeth Ann Olphie, IRB Administrator Date 1/9/17

APPENDIX C:
Parental Consent Form

VALDOSTA STATE UNIVERSITY

Parent/Guardian Permission for Child's/Ward's Participation in Research

You are being asked to allow your child (or ward) to participate in a research project entitled **“Motivations for Dual-enrollment from a Student Perspective: A Qualitative Study.”** This research project is being conducted by **Stephen Daniel**, a doctoral student in *Education Leadership* at Valdosta State University. The researcher has explained to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks to your child. You may ask the researcher any questions you have to help you understand this study and your child's possible participation in it. A basic explanation of the research is given below. From this point on in this form, the term “child” is used for either a child. Please read the remainder of this form carefully and ask the researcher any questions you may have. The University asks that you give your signed permission if you will allow your child to participate in this research project.

Purpose of the Research: This study involves research. The purpose of the study is to identify and analyze the motivational factors relating to dual-enrollment from a student's perspective.

Procedures: Your child will be involved in the data collection phase, and will participate in a series of three interview sessions that will focus on their motivations for selecting dual-enrollment classes at the Central Education Center (CEC). There are no alternatives to the experimental procedures in this study. The only alternative is to choose for your child not to participate at all. The interview sessions are estimated at 30-45 minutes each, and will be coordinated with permission of the CEC faculty and staff. These sessions will be conducted as part of their normal schedule at the CEC, and all efforts will be made to not disrupt or detract from their assigned coursework.

Possible Risks or Discomfort: Although there are no known risks to your child associated with these research procedures, it is not always possible to identify all potential risks of participating in a research study. However, the University has taken reasonable safeguards to minimize potential but unknown risks. Furthermore, the nature of this research will focus only on the positive motivations that attracted them to dual-enrollment pathways, and will not seek to research any childhood trauma or family history. By granting permission for your child to participate in this research project, you are not waiving any rights that you or your child may have against Valdosta State University for injury resulting from negligence of the University or its researchers.

Potential Benefits: This study will address the dual-enrollment experience from a student perspective, and provide additional data on the motivational aspects that contribute to this accelerated college experience. Your child's feedback will contribute to this important topic, and will help to further the initiative to further attract high school students into this pathway. Although your child [may/will] not benefit directly from this research, his/her participation will help the researcher gain additional understanding of... Knowledge gained may contribute to the recruitment and retention of future dual-enrolled students.

Costs and Compensation: There are no costs to you or your child and there is no real compensation (no money, gifts, or services) for your child's participation in this research project. However, \$10.00 fast food gift cards will be given to each participant at the conclusion of the final interview session as a token of appreciation for their time and effort.

Assurance of Confidentiality: Valdosta State University and the researcher will keep your child's information confidential to the extent allowed by law. Members of the Institutional Review Board (Bragg et al.), a university committee charged with reviewing research to ensure the rights and welfare of research participants, may be given access to your child's confidential information.

Your child's information, obtained through this research, will be protected by using a coding system that will link interview feedback with an assigned number for each participant. Such survey data, including the audio recording of the interview, will be maintained solely by the researcher, with limited access to the Institutional Review Board (Bragg et al.) by request. Once the final dissertation is submitted and approved, all recordings will be erased by the researcher. Again, the student's actual name or personal data will not be utilized in the published research study.

Data from the study will be reported in aggregate terms, listing the overall feedback from the interview sessions. (e.g., reported in combination with information obtained from other participants, not associated with participants by name, not individually identifiable, etc.).

Voluntary Participation: Your decision to allow your child to participate in this research project is entirely voluntary. If you agree now to allow your child to participate and you change your mind later, you are free to withdraw your child from the study at that time. By not allowing your child to participate in this study or by withdrawing him/her from the study before the research is complete, you are not giving up any rights that you or your child have or any services to which you or your child are otherwise entitled to from Valdosta State University. Likewise, if your child decides on his/her own not to participate or to drop out of the study later on, he/she is not giving up any rights, including rights to services from Valdosta State University to which he/she is otherwise entitled. Your child may skip any questions that he/she does not want to answer.

Information Contacts: *The wording in this section will depend on whether the research project is exempt from IRB review per the Federal regulations or if it must undergo expedited or convened review.*

For non-exempt research (i.e., expedited or convened review required), please use the following statement: Questions regarding the purpose or procedures of the research should be directed to Stephen (Steve) Daniel at [REDACTED]

[REDACTED] This study has been approved by the Valdosta State University Institutional Review Board (Bragg et al.) for the Protection of Human Research Participants. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your child's rights as a research participant, you may contact the IRB Administrator at 229-333-7837 or irb@valdosta.edu.

APPENDIX D:

(Student) Participant Invitation Memo

Dear Parent or Guardian,

I am conducting a research project in support of my doctorate through Valdosta State University, and request that your child be allowed to participate. This study seeks to describe dual-enrollment experiences from a student's perspective, and identify factors that motivate or inhibit high school students' decisions to participate in dual-enrollment classes at a technical college. Interviews with students will provide the data for this research project, and the sessions will be conducted onsite at the [REDACTED].

This research has been approved through Valdosta State University's IRB process, and the [REDACTED] School System. As part of this approval, all interview responses shall be coded to ensure all participants remain anonymous. More details and contact information are referenced on the enclosed materials.

Please review documents and sign the enclosed Parental Assent form, and ask your child to return it to the [REDACTED] office located at [REDACTED]. Thanks in advance for allowing your child to participate in this research project that will hopefully yield some valuable data for dual-enrollment recruitment in the future.

Sincerely,

Steve G. Daniel