

DUAL CREDIT AND COMMUNITY COLLEGE WORKFORCE PARTNERSHIP:
EXAMINING STUDENT PERSISTENCE AND RETENTION OF A LEVEL-1
CERTIFICATE PROGRAM

by

Mia D. Taylor

This dissertation is submitted in partial fulfillment of the
requirements for the degree of

Doctor of Education

Ferris State University

August 2021

© 2021 Mia D. Taylor

All Rights Reserved

DUAL CREDIT AND COMMUNITY COLLEGE WORKFORCE PARTNERSHIP:
EXAMINING STUDENT PERSISTENCE AND RETENTION OF A LEVEL-1
CERTIFICATE PROGRAM

by

Mia D. Taylor

has been approved
August 2021

APPROVED:

Jasmine Dean, EdD
Committee Chair

Margaret Ford-Fisher, EdD
Committee Member

Betty Fortune, EdD
Committee Member

Dissertation Committee

ACCEPTED:

Sandra J Balkema, PhD, Dissertation Director
Community College Leadership Program

ABSTRACT

The purpose of this investigative study was to examine the instructional and programmatic strategies needed to improve the retention, persistence, and matriculation of former and current dual credit students enrolled in the Level-1 Business Technology workforce certificate program at one community college system in southeast Texas. A product dissertation as the research design, titled the *Business Technology Dual Credit Workforce Student Retention Handbook*, was developed to expand the professional knowledge relative to improving student persistence in the dual credit program. The essential parts of the Student Retention Handbook include seven sections identified as (1) Introduction to Dual Credit, (2) Student Role and Persistence, (3) Retention Initiatives and Processes, (4) Resource Allocation, (5) Program Strategies, and (6) Discussion and Reflection, and (7) Appendices.

Utilizing five experts as field test evaluators to critically review the book's content and program strategies, these seven sections addressing dual credit students' success in a Level-1 business technology workforce program will help expand the research literature. Currently, there is limited information regarding the instructional delivery and enrollment outcomes of dual credit students enrolled in a community college certification program. As a practical guide, the handbook may help to support new faculty training and increase the AAS completion rates among the enrolled dual-credit high school students, regardless of their socioeconomic background and family demographics.

KEYWORDS: community college, retention, business technology, dual credit

DEDICATION

This dissertation project is dedicated to all dual credit advocates and graduates awarded the Level-1 Certificate. My professional goal is to improve the accessibility of dual credit by supporting a one-year waiver of tuition and fees and awarding scholarships to secondary students that matriculate to the AAS degree after completing high school.

To my brother, Gregory Demetric Taylor (RIH), thank you for the spiritual gifts that helped me accomplish this academic goal.

ACKNOWLEDGMENTS

Thank God, my Savior, from whom all blessings flow. I want to thank my parents, Jethro and Helen Taylor, for encouraging me to take my own advice, *persist and complete*. To my mentors Dr. Bobbye Bookman-Coleman (RIH) and Mrs. Willie T. Caldwell (Sunshine), I could not have completed this program without your consistent leadership and support. To my Sister Circle-Sorors Dr. Sabrina Lewis-Jones, Dr. Sheila Jenkins, Dr. Sharon Brown, Dr. Tammica Traylor, Frederica Watson, Katyna Sampson, Machel Denson, of Delta Sigma Theta Sorority, Inc. To my dissertation committee members, Dr. Jasmine Dean (Chair), Dr. Betty Fortune, and Dr. Margaret Ford-Fisher (The Founding Mother of Dual Credit), you represent the powerhouse of women in leadership. Thank you for accepting me into your sphere of influence of greatness.

Dr. Nora Jo Sherman & Dad Angel, thank you for the *housing and the scholarships* that helped me continue my educational journey. My sister-editor, Dr. Charlene Adams, your work is impeccably second to none. Now I understand why you are sought-after internationally. Thank you for allowing this American to solicit your excellent service- you are formidable! To my little brother, Dr. Desmond Lewis, and his wife, Ms. Wanda Lewis. Thank you for constantly reminding me of *how smart I am*. To John & Pauline Vickers, Alexis & Victoria McGee, thank you for putting up with Mama and me after the 2021 Houston Winter Storm. You all made our homelessness a smooth and seamless transition and I'm very grateful for your hospitality, good cooking, love, and support (Carolina goodness). To my uncle Ray (RIH), Ruthena, Stacy, Tracy, Tamara, and Tomeka Johnson; Kim and Demetric, my Big Sister, Luisa Santos Dougan, Giselle and Natalia Dougan, Sheila Eaddy and Godson Carrington, Victoria, and Baby Layla McDaniel,

Anthony Johnson, Darling Darin Baskin, Edmund Forester and family, aunts, uncle, cousins, and play-cousins, thank you for your love and support.

Thanks to my church family at St. Cuthbert Episcopal Church, Ferris State University and “The” Texas Cohort, Clemson University, Webster University, Houston Community College, Lone Star College, and all the community colleges that promote the level-1 workforce certification as a stepping-stone for students seeking skilled employment.

TABLE OF CONTENTS

List of Tables	vii
List of Abbreviations	viii
CHAPTER ONE: INTRODUCTION	1
Introduction to the Study	1
Statement of the Problem	2
Purpose of the Study and Research Questions	5
Significance of the Research	6
Key Terms and Definitions	6
Theoretical Foundation.....	8
Field Test of The Business Technology Dual Credit Workforce Handbook	9
Chapter Summary and Organization of the Remainder of the Study	10
CHAPTER TWO: LITERATURE REVIEW	12
Introduction	12
Literature Search Strategy	13
Conceptual Framework: Hertzberg's Two-Factor Theory	14
Higher Education Access and Dual Credit Program.....	16
Texas Higher Education Reform Initiative	20
Texas Dual Credit and Postsecondary Funding Structure.....	23
Texas Dual Credit Program.....	24
Dual Credit and Workforce Certificate	27
Chapter Summary.....	28
CHAPTER THREE: METHODOLOGY	30
Introduction	30
Research Questions	31
Methodological Design	32
Role of the Researcher and Biographical Notes.....	33
The Business Technology Dual Credit Workforce Handbook.....	33
Field Test Procedures	38
CHAPTER 4: THE HANDBOOK	40
Introduction	40
Business Technology Dual Credit Workforce Handbook.....	40
CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS.....	84
Introduction	84
Research Questions	84
The Significance of the BT-DCW Handbook	89
Limitations, Assumptions, and Recommendations	90
Limitations	90

Assumptions	91
Recommendations for Practice.....	92
Conclusion of the Study	93
REFERENCES	95
Appendix A: Mia's High Impact Practice (HIP) Alert & Intervention Early Alert 3-Step Process	104
Appendix B: Balanced Scorecard For Matriculation	106
Appendix C: Case for Student Support	108
Appendix D: Letter of Appeal for Scholarship Funding	110
Appendix E: Field Test Expert Evaluative Section Assignments	112
Appendix F: General Evaluative Rubric for the Dual Credit Handbook	114

LIST OF TABLES

	Page
Table 1: Sample of Key Motivators and Hygiene Factors	16
Table 2: Sections of the BT-DCW Handbook.....	34
Table 3: Evaluative Rubric for the Dual Credit Handbook.....	37
Table 4: FTE Evaluation of the BT-DCW Handbook.....	41

LIST OF ABBREVIATIONS

TERM	ABBREVIATION
Advanced Placement	AP
Alternative text	ALT
Associate of Applied Science Degree	AAS
Business Technology Dual Credit Workforce Handbook	BT-DCW
Community College	CC
Dual Credit	DC
Dual Enrollment	DE
Grade Point Averages	GPA's
International Baccalaureate	IB
Texas Higher Education Coordinating Board	THECB
Texas Success Initiative Assessment	TSIA
Texas Workforce Commission	TWC

CHAPTER ONE: INTRODUCTION

INTRODUCTION TO THE STUDY

As two-year institutions in higher education, community colleges are exploring how best to address the postsecondary performance, low retention rates, and degree completion of traditionally age college students and dual credit/dual enrollment (DC/DE) students (9th through 12th grade) taking postsecondary classes on their high school campuses or at the local community college campus (Ganzert, 2014). The DC/DE postsecondary programs offer college-level classes to secondary students at either the high school campus or the local community college campus with traditionally aged students. The DC/DE program offers students simultaneous enrollment in college-level courses to earn transferrable college credits or career certificates while satisfying the high school diploma requirements prior to entering a 2- or 4-year institution.

Another emphasis of the DC/DE program is to improve students' college readiness, and retention once enrolled as full-time students in college. According to Professor John Bean (1986), the foremost educational researcher on higher education retention and persistence, postulated that retention is a national priority for three critical reasons: (1) national and regional economic impact, (2) ethical considerations, and (3) institutional performance and graduation rates. The macro-to-micro economic assertion is based on macro-econometric studies relative to higher education attainment. Degree completion has revealed a positive link between one's higher education level and increased wages over time (McMahon, 2009).

Essentially, the lifetime income differential is partly due to improved higher education qualifications that lead to new employment opportunities. Moreover, it strengthens the local economy and workforce that depends on workers with marketable skills (Hermannsson, 2016).

As for the impact on ethical considerations, this is connected to institutional policy decision-making and the responsibility of the colleges to develop effective retention programs and supportive services that contribute to postsecondary student success and college persistence semester-to-semester (Nygaard et al., 2013).

In addition, graduation performance rates and local economies are also positively affected when 2- and 4-year institutions successfully retain diverse students and graduate them from their respective college degree programs. In a review of the research literature on the effectiveness of dual enrollment programs nationwide and retention, it is clear that high school students that participated in a dual enrollment program had a higher college graduation rate in comparison to full-time enrolled college students that did not participate in a postsecondary dual enrollment program while in high school (Grubb et al., 2017).

Thus, the primary purpose of this investigative study is two-fold. First, it explores and discusses what instructional and programmatic strategies are needed to effectively improve the retention and persistence of diverse dual-credit high school students enrolled in a Level-1 Business Technology certificate program for Medical Office Specialist at one urban community college in southeast Texas. The second goal is to understand why dual credit students who complete the Level-1 workforce certificate do not matriculate to pursue the corresponding AAS degree after graduating from high school.

STATEMENT OF THE PROBLEM

Dual credit and dual enrollment participation have been investigated from many different perspectives (e.g., race, gender, private school, public school, high-grade performance, and low-grade performance) from student motivation to academic readiness and the evaluative differences in college grade point averages (GPAs) among diverse student groups. In support of

the DC/DE college experience, Conley (2012) conducted a national study on college and career readiness factors and posited that four markers predict or determine the college readiness of DC/DE student populations. They are cognitive strategies, critical content knowledge, core learning skills, and learning strategies. Cognitive strategies refer to one's ability to perform college-level work and think like college students due to their DC/DE experience, thus suggesting that students have a clear understanding of their expectations and information on the support resources available to persist through a postsecondary program.

On the other hand, core learning skills relate to one having mastered the foundational knowledge of the subject area to earn college credit. As for learning skills and techniques (strategies), these are associated with having the ability to self-monitor academic progress, performance, and problem-solving situations that might negatively impact their ability to succeed in the college classroom and higher education environment. However, in Conley's (2012) interpretation of the four college readiness factors, it is essential to note that he defined college readiness as "A student who is ready for college and career can qualify for and succeed in entry-level, credit-bearing college courses leading to a baccalaureate or certificate, or career pathway-oriented training programs without the need for remedial or developmental coursework" (p. 1). In the college context, this college readiness definition suggests that effective academic performance is related to advantaged and high-performing students identified as academically prepared to perform college-level coursework (Jeffcoat, et al., 2014; McNair, et al., 2011).

Thus, other indicators concerning personal efficacy, academic resilience, intrapersonal peer network support, parental encouragement, first-generation status, and faculty support are opined as nonsignificant in predicting participants' persistence and student success in DC/DE courses. Arguably a case can be made that there is a tacit (likely unintended) message and over-

emphasis on earning transferrable college credits for core subjects to transfer to a 4-year school after completing the high school diploma (Williams, 2010). While the collegiate component of the DC/DE program design is essential, it diminishes the importance and value of the dual enrollment workforce career certificate program because students are not matriculating towards the Associate Applied (AAS) degree.

The community college workforce program is offered as an alternative path that equally awards college credits and provides occupational training to enter the workforce after high school graduation or continue enrollment at the community college to earn an associate degree in that career field. Although the dual credit students have an awareness of the benefits of the workforce AAS degree program, the issue is that the program is devalued and not perceived as equivalent to the credit-bearing coursework needed to transfer to a 4-year school to obtain the baccalaureate degree (Grubb et al., 2017; McKeown-Moak, 2009). As a result, the student persistence rate of high school students and the matriculation rate is relatively low toward an AAS degree. Therefore, community colleges will increase access to higher education and potentially address the workforce demand for educated and prepared skilled workers. In this case, they must have an in-depth understanding of best-practice techniques to recruit and retain dual credit students enrolled in workforce programs during and after receiving the high school diploma.

Currently, there is an abundance of available literature on the dual credit program that pertains to transferring to a 4-year college. However, less information is available on the retention and persistence of DC/DE students enrolled in an occupational Level-1 workforce certificate program. Given this literature gap, the intent of this study is to develop a supportive internal department BT-DCW Handbook for dual credit faculty, counselors, advisors, and

administrators with new initiatives and strategies on how to effectively support the enrollment of dual credit students so they can gain the skills and certifications required to enter the workforce after high school or enter the community college full-time to complete their AAS degree program.

PURPOSE OF THE STUDY AND RESEARCH QUESTIONS

As stated earlier, the general purpose of this investigative study is to examine what instructional and programmatic strategies are needed to effectively improve the retention and persistence of dual enrollment high school students enrolled in a stackable Level-1 Business Technology workforce certificate program for Medical Office Specialist at one urban community college system in southeast Texas (PCRN, n.d.). Thus, at the end of this research study, the goal is to answer the research questions and develop a relevant administrative Business Technology Dual Credit Workforce Handbook (BT-DCW) with best-practice strategies and recommendations on how faculty and advisors can support dual credit students' enrollment from one urban school district campus in the southeast region of Texas (Fincher-Ford, 1996). The three research questions that guided this research study on dual credit enrollment and student persistence are listed below.

1. **Research Question 1.** How does the workforce Business Technology Certificate Program prepare dual credit students academically to persist in a 2-year Associate Degree Program or Transfer to a 4-year degree program?
2. **Research Question 2.** What individual experiences or institutional factors significantly influence the persistence and motivation of dual credit students and their ability to complete the Level-1 workforce degree program after receiving the high school diploma?
3. **Research Question 3.** What role do dual credit faculty and college counselors have in strategically helping dual credit students remain motivated to complete the Level-1 certificate program before graduating high school successfully?

SIGNIFICANCE OF THE RESEARCH

The importance of the current research study on the retention and persistence of dual credit students enrolled in a workforce program is that the outcome is a detailed best-practice handbook. The BT-DCW Handbook is an instructional guide that contains valuable strategies for dual credit faculty, counselors, and advisors on how to improve the success of dual credit high school students enrolled in the Level-1 workforce Business Technology certificate program. This research study and the BT-DCW Handbook will expand the current literature, which is needed to improve dual credit students' instructional delivery and enrollment outcomes. The BT-DCW Handbook can be used as a valuable information tool with practical strategies aimed at increasing student recruitment and decreasing program attrition, elevating student commitment to the program, obtaining scholarship funding to support their matriculation toward the AAS degree after high school completion, and increasing program completion regardless of their background demographics.

KEY TERMS AND DEFINITIONS

Academic Motivation. The term academic motivation pertains to the importance or value one places on the task and the level of effort that he or she is willing to commit to accomplishing the stated goal (Hufton et al., 2002).

College Readiness. This term relates to specific skills and knowledge that are critical to preparing students academically and socially for the college-going experience (Conley, 2012). An alternative definition refers to a student's ability to enroll in required college-level coursework to achieve their educational goal (Arnold et al., 2012).

Dual Credit. The term dual credit is used interchangeably with the term dual enrollment, and the intent of dual credit is to increase access to higher education. Dual credit is defined as a

postsecondary program option that allows high school students to earn college credits onsite at the high school or on-campus at a community college or 4-year institution (Fincher-Ford, 1996; Karp et al., 2004).

Dual Enrollment. Referred to as concurrent enrollment, dual enrollment indicates that a student, usually in their junior or senior year of high school, is taking college courses for credit at the postsecondary institution in the same term as their high school classes (Karp et al., 2004). Another relevant definition (stated by Berry, 2003; Karp et al., 2007; Terranova, 2019) describes it as a collaborative partnership between the high school and nearby community college that enrolls students in college courses to earn transferable college credit or earn a workforce certificate to enter a career after graduating high school (The National Alliance of Concurrent Enrollment Partnerships, 2018)

Level-1 Workforce Certificate. The Texas Education Agency, THECB, and the Texas Workforce Commission all agree that the certificate is a formal award granted by an institution of higher education (THECB, 2018, p. 1). The vocational workforce certificate allows enrolled students to develop the essential skills and knowledge needed to compete for employment in various labor market fields and industries. The completed coursework, which can be completed in two semesters (15-42 credits), can be applied to the AAS degree (2-year program) for students seeking to enter the workforce, or academic credits can be transferred to a 4-year college or university and applied towards a baccalaureate degree.

Student Persistence. In the higher education context, persistence is the ability of a student to continue from one semester to the next semester (D'Amico et al., 2015). Higher education institutions and researchers use this information to calculate the retention rate of enrolled students.

Student Retention. This term retention refers to students who continue their college enrollment from one year to the next (fall-to-fall; D'Amico et al., 2015). For example, an enrolled student starts in the fall semester of year one and continues enrollment into the fall semester of year two. State legislators use the institutional retention rate to determine the amount of funding the institution will receive from the state to support student enrollment and statewide education initiatives (Grover, 2009; Mallinckrodt, 1988).

THEORETICAL FOUNDATION

The theoretical framework utilized for this study on dual credit and student persistence is Hertzberg's two-factor theory of motivation. According to this theory, two types of motivational factors impact a person's sense of satisfaction or dissatisfaction in a particular setting (Hertzberg, 1968). These factors are referred to as satisfiers (motivators) and dissatisfiers (hygiene factors). The environmental and internal satisfiers are considered key influencers or motivators of job satisfaction and include individual outcomes such as performance achievement, program recognition, taking responsibility for one's success, and advancement.

Moreover, Hertzberg (1968) noted that the dissatisfiers (hygiene factors) are linked to causal factors that lead to a sense of dissatisfaction. When individuals are dissatisfied with a particular condition, it could be linked to the college environment, peer interactions, institutional policies, and supervision. Although the motivation theory is commonly used in relation to employee motivation in the workplace setting, it was perceived as adequate in the context of higher education to help explain and identify the satisfiers regarding the role of the community college in promoting positive student experiences and persistence in the workforce program. Moreover, how the satisfiers support student performance and persistence. The motivation theory was also valuable for understanding why students leave the program early and what

programmatic changes can be modified or structured differently to address the attrition trajectory (Braxton, Duster & Pascarella, 1988; Mulligan & Hennessy, 1990; Pedhazur & Kerlinger, 1982).

FIELD TEST OF THE BUSINESS TECHNOLOGY DUAL CREDIT WORKFORCE HANDBOOK

The researcher conducted a team of DC/DE experts in the field. The experts determined the program relevance and soundness of the proposed BT-DCW Handbook on dual credit. A field test is typically described as a formal strategy employed by the researcher or product developer to receive helpful content and editorial feedback from experts in the field. Relative to this dissertation study on the dual credit partnership and participants, editorial assistance was needed to help determine the exact value of the BT-DCW Handbook and the recommended strategies constructed by the researcher to address the common issues or concerns on student persistence.

The written and verbal feedback gained from the expert reviews of the BT-DCW Handbook was not treated nor used as shared collected data since the reviewers are field experts and not human subjects (see the HHS Federal regulation for 45 CFR 46 for protection of human subjects). Thus, IRB approval was not required from Ferris State University prior to approaching the volunteer field experts for in-depth feedback pertaining to the content and usefulness of the recommended strategies and policies presented in the BT-DCW Handbook.

The dual credit experts used for the field testing of the BT-DCW Handbook provided information that helped the researcher revise and improve the sentence structure, recommendations, simplify complex sentences, and make the document read more fluidly. To strengthen the creditability of the BT-DCW Handbook, the researcher addressed the noted confusion and assumed biases, reduced repetition of word choices, and removed unnecessary information that was perceived to be outside the scope of the researched topic. Since data

collection is not a procedure involved in the field testing of an instrument or guide, the Institution Review Board (IRB) approval or an exemption decision from the university was not needed prior to conducting the actual field test.

When the study is completed and the proposed BT-DCW Handbook is available for public reading, it will be provided to administrators, dual credit faculty members, and college counselors to improve the program's quality and support services. As a result, the institution will realize a positive difference in the persistence rate of the enrolled dual credit students coming from a single school district campus in the state of Texas.

CHAPTER SUMMARY AND ORGANIZATION OF THE REMAINDER OF THE STUDY

In an effort to increase college enrollment and higher education institutions have entered into dual credit partnerships to offer postsecondary pathways to earn college credit before students graduate from high school. Educational leaders view this type of strategic partnership as a practical approach to resolving the current labor market issue while increasing the number of completers enrolled in higher education (Taylor et al., 2015; Terranova, 2019). Thus, in the context of the current research study, there is a need to explore what programmatic issues affect persistence and examine why students who obtain the level-1 certificate in high school do not complete the postsecondary AAS degree as full-time college students after high school completion.

To address this research need, the first chapter provided an introduction to the research study and briefly discussed the background to the study, statement of the problem, the purpose of the study and research questions, theoretical framework, definitions of key terms, the significance of the study, explanation of the field test procedure, and perceived limitations and assumptions based on the methodological design employed for the study. In the remaining

sections of this study, which are Chapters Two to Five, the research topics included a review of the relevant literature in Chapter Two, the methodological approach and design in Chapter Three, the BT-DCW Handbook in Chapter Four, and the final section, Chapter Five, answers the research questions, presents a discourse on the outcome and conclusions of the study.

Furthermore, the significance of the BT-DCW Handbook is discussed, and recommendations for community college practitioners and other personnel involved in the coordination of dual credit and dual enrollment programs are offered, along with closing remarks from the researcher.

CHAPTER TWO: LITERATURE REVIEW

INTRODUCTION

Over the past two decades, national attention has focused intensely on increasing and graduating a higher number of college students eligible to enter 2-year institutions and 4-year university systems to meet 21st-century labor market demands (Caverly et al., 2019; Fincher-Ford, 1996). In particular, traditional seminal movement in creating dual credit programs, Dr. Margaret Ford-Fisher was at the forefront and posited that the agreement process often entailed various issues (Fincher-Ford, 1996). The global context and the historical foundation of the dual credit education model are examined. Furthermore, Ford-Fisher explained issues then that are still prevalent today, including legal constraints, the process for curriculum alignment, funding sources, and how the dual credit program procedures are evaluated.

In today's technologically driven workforce, college-educated and skilled workers are needed to meet the global economy, which is more competitive, innovative, and more technical. In response to this challenge, some scholars have strongly supported increasing dual credit programs to increase college enrollment and graduation rates across the various states. In a nationwide 2010 survey on 1,500 high schools in all 50 states, Thomas et al. (2013) found that 82% of the schools surveyed provided a postsecondary program for high school students in partnership with nearby colleges and universities.

In another study conducted by Marken et al. (2013), 96% of the high school students enrolled and took dual credit coursework in 490 community colleges, equating to almost one million student participants nationwide. Thus, like other postsecondary options, it is not surprising to learn that a significant number of high school students choose the dual credit option

like a personal choice (Bailey, Hughes & Karp, 2003; Hoffman, Vargas, & Santos, 2009; McCarthy, 1999) to earn a 2-year degree while in high school or to shorten their time toward the baccalaureate degree after completing high school. The Community College Research Center (CCRC, 2012) credits the dual credit student persistence rates in improving high school GPAs and college readiness compared to the non-dual credit college student.

Although there is strong evidence and support in the research literature on the benefits of the dual credit program, there is a gap in the literature on understanding the effectiveness and persistence of students enrolled in the dual credit workforce Level-1 certificate program at the community college level (Appleby et al., 2011; Grubb et al., 2017; McKeown-Moak, 2009). To conduct research on this dual credit topic using Hertzberg's two-factor theory, the literature review chapter is organized into several headings and relevant subheadings, starting with an introduction to the study, identification of the research gap, the theoretical framework, and several essential literature themes related to (1) Increasing Higher Education Access, (2) Texas Education Reform Initiative, (3) Texas Funding Structure, (4) Understanding Dual Credit and Dual Enrollment, (5) Community College and School District Workforce Partnership, and (6) Support Services for Student Retention and a Comprehensive Chapter Summary on the dual credit discourse ends the literature review section.

LITERATURE SEARCH STRATEGY

To conduct a thorough review of the past and present research literature on dual credit, a broad literature search was employed using textbooks, numerous databases, and academic search engines such as Google Scholar, ERIC, EBSCOhost, ProQuest, JSTOR, Sage Premier, Taylor, and Francis, and other databases that offered full-text peer-reviewed journal articles published

within a five-to-10-year period to the present. In some cases, seminal research literature was accessed to understand the full scope of the dual credit experience and research problem.

The key terms used to conduct a broad literature search included multiple terms such as dual credit, dual enrollment, community college-level dual credit coursework, school district college partners, diversity of dual credit students, advising and resource support, programmatic structure, transition into the college environment, Herzberg 2-factor motivation theory, career planning, and role expectations of dual-credit participants.

CONCEPTUAL FRAMEWORK: HERTZBERG'S TWO-FACTOR THEORY

The present dissertation study on the persistence and retention of students enrolled in the dual credit workforce Level-1 Medical Office Specialist Certification program employed the Herzberg Two-Factor theory as the conceptual framework. Researchers commonly applied to workplace settings and use the motivational theory to explain the environmental factors that influence or promote employee job satisfaction (motivators) and employee dissatisfaction (hygiene factors) which, in turn, result in attrition in various workplace settings (Bers, & Smith, 1991; Herzberg, 1959).

It is adequate for the present dissertation study because it may help explain the reasons why students either withdraw early (student attrition) or fail to persist in the dual credit workforce program before earning the Level-1 workforce certificate. As a theoretical lens, the Herzberg motivational theory may help to understand and assess if the structure of the program or academic environment for the dual credit program is meeting the instructional and support needs of enrolled students. In this higher education context, motivators are formally defined as the level of effort and energy one may apply toward accomplishing a set goal or completing a

task (Bannon, 1999; Braxton, Duster & Pascarella, 1988; Mulligan & Hennessy, 1990; Pedhazur & Kerlinger, 1982).

The individual experiences that influence motivation or motivators are individual student or grade recognition, sense of achievement, meeting program expectations, being responsible, and making progress. In contrast to the motivator factors, the conditions or experiences that promote dissatisfaction in the academic environment or the program itself relate to poor environmental conditions, lack of benefits or rewards, poor faculty-student relationships, and negative non-classroom experiences.

According to Herzberg (1959), these elements can either encourage or improve satisfaction in a particular setting or diminish one's motivation and happiness on the job, or in this case, in the classroom setting. In other words, the theory focuses on whether the environment can meet a person's psychological well-being and academic expectations in the learning environment. The approach that Herzberg (1959) used to identify the motivators and hygiene factors involved conducting a mixed-methods study that first administered a quantitative survey instrument to measure job satisfaction and dissatisfaction, and then individual interviews were conducted.

The results of the findings were then analyzed to determine what specific experiences caused an employee to feel a sense of motivation or negative attitude toward the job or workplace climate. From these qualitative narratives and collected empirical data, he was able to identify the critical elements that affected an employee's level of motivation and dissatisfaction. Table 1 provides a comparative list of Herzberg's groundbreaking motivators and hygiene factors, which based on retention research in the higher education domain (see Andrews, 2004; Appleby et al., 2011; Astin, 1984; Byrne, 2001; Creswell & Creswell, 2017; Creswell & Poth,

2018; Duquia, et al., 2014; Ganzert, 2014; Glesne, 2015; Harnish & Lynch, 2005; Hatch, 2002; Hoffman, 2003; Milem & Berger, 1997; Tinto, 1997), may also provide a contextual understanding of how student’s learning and experiences within the college-level classroom and inside the institutional setting impact their motivation to persist.

Table 1: Sample of Key Motivators and Hygiene Factors

MOTIVATORS (SATISFIERS)	HYGIENE FACTORS (DISSATISFIERS)
Achievement/Grade Progress	Low Grades
Recognition	Poor Faculty-Student Relationship
Learning/Knowledge	Poor Peer Interactions
Progress/Advancement	Policies
Positive Interactions	High Workload
Comfortable Environment	Unsatisfactory Campus Environment or
Operable Equipment	Unsatisfactory Computer Lab Facility

Higher Education Access and Dual Credit Program

Over the last two decades, Robertson et al. (2001) pointed out that the usage of the term’s concurrent enrollment, dual credit, dual enrollment, postsecondary enrollment, and co-enrollment are used interchangeable in the research literature to describe those programs that offer “seamless education” through community colleges (p. 1). The dual credit and dual enrollment postsecondary movement in the U.S. has increased significantly at particularly community colleges due to growing concerns regarding lower college enrollment and graduation rates reported by 2-year and 4-year institutions (Andrews, 2004; Houser & An, 2015).

Adding to this concern, it is argued that in the 21st century, 65% of new jobs in the U.S. will require employees to have some level of higher education knowledge and technological skills in order for employers to compete in a global labor market economy (Carnevale et al., 2013). To provide college and dual credit students with the necessary advance and professional skills, community colleges offer a Level-1 certificate as confirmation that students are job-ready and able to meet the workforce and economic needs of the employment market (Harnish & Lynch, 2005). Carnevale and colleagues estimated that in 2018, only 38% of new jobs required a high school diploma as a minimum to qualify for the position, and in the state of Texas, 44% of the new jobs required a minimum of a high school diploma, while 56% of employers required some form of higher education or postsecondary training to qualify for a job. Relative to workforce industry demands, The Partnership for the 21st Century Skills (Amey, 2008) noted that creating an aligned 21st- century public education system prepares Americans to thrive in the central competitiveness challenge of the next decade. Addressing this challenge requires forceful and forward-thinking leadership from federal, state, and local policymakers. (p. 16)

The critical implications of this assertion are twofold. First, individuals without some form of postsecondary training or degree attainment from the community college or university will find it difficult to secure high starting wages and career success in different employment sectors (Barrow, Brock & Rouse, 2013). Second, to address the present higher education and labor market skill gap, especially in high need occupational fields (healthcare, technology, and financial services), community college workforce programs and universities will need to work collaboratively with local secondary high schools to respond to the increasing labor market demands and global market competition (Berry, 2003; D'Amico et al., 2015; Goldman et al., 2015). Even though 2-year and 4-year colleges participate in offering dual credit or dual

enrollment to high school students, Andrews (2004) posits that generally, depending on the state, most dual credit partnerships are with two-year community colleges or technical colleges (p. 417).

However, this is not surprising, considering that public 2-year community colleges have a natural partnership with local K-12 high school districts due to their institutional goals and historical commitment to building human capital through workforce development and providing life-long learning opportunities to members in the local communities (Astin, 1984; Cohen et al., 2014; Milem & Berger, 1997; Terranova, 2019; Tinto, 1993). Universities and colleges offer for-credit workforce programs to prepare for a career or complete transferrable coursework to enter a 4-year institution with 30 or more core credit hours. Community colleges help high school students prepare for college (academic skills), reduce their time toward earning a baccalaureate degree, and respond to the local labor market needs for various workforce industries (Hu & Bowman, 2016; Williams, 2010).

Further, Barnes et al. (2010) and Moore et al. (2010) expressed that high school teachers, K-16 administrators, and college faculty have an essential role in helping high school students and parents understand the potential benefits of participating in a postsecondary program during the high school to prepare for college readiness. Researchers and state and federal government leaders frequently refer to programs like dual credit as a beneficial pathway to improving college readiness due to the academic rigor and making college more affordable for underrepresented and lower-income secondary student populations.

From a national level, Cassidy et al. (2010) suggested that "accelerated learning opportunities are becoming increasingly common strategies to promote high school graduation and encourage college enrollment" (p. 1). Likewise, Hoffman et al. (2009) added that "dual

enrollment becomes a central strategy for increasing college-going rates of high school students" (p. 46). The nine benefits listed by Karp and Jeong's (2008) post-secondary study are linked to improving college access and enrollment rates, higher college GPAs, and degree completion for students enrolled in dual credit. They are summarized as,

1. Increasing the academic rigor of the high school curriculum and encouraging students to take challenging coursework.
2. Providing additional opportunities to students who have exhausted their high school's course offering.
3. Helping low-achieving students meet high academic standards and graduate from high school.
4. Lowering the need for remediation in postsecondary institutions.
5. Increasing student aspirations, particularly for students who do not have college-going role models in their families or communities.
6. Helping students acclimate to college life.
7. Improving relationships and coordination between secondary and postsecondary education institutions.
8. Lowering the cost of college for students and their families.
9. Improving graduation rates. (p. 2)

While Karp and Jeong's (2008) study cite the benefits of dual credit for high school students taking college-level courses, nationally it is reported that more than 60% of first-year college students are not ready to perform academically at the college level (National Center for Education Statistics, 2013). Additionally, research contends that a lack of college readiness is a high barrier to degree completion, thus negatively impacting underrepresented groups enrolled in higher education (Iloh & Toldson, 2013).

TEXAS HIGHER EDUCATION REFORM INITIATIVE

At the national level, in 2009, former President Barack Hussein Obama presented a bold and historic reform initiative pertaining to elevating U.S. Community Colleges and asserted by 2020 public 2-year institutions to increase postsecondary student enrollment by 2020 and add five million additional graduates (Brandon, 2009; Kotamraju & Blackman, 2011). In an effort to support this federal charge, the Texas Higher Education Coordinating Board (THECB) has upheld the state's mission to provide leadership and coordination for Texas higher education institutions to improve higher education access, affordability, program quality, academic success, and cost efficiency through the 60x30TX legislated initiative. As a result, this state mandate may promote a more competitive workforce in the future that positions Texas as an international leader in the global and local economies (THECB, 2018).

Compared to other large states, Texas has a remarkably diverse population, that represents over 25 different nationalities and ethnicities residing in urban and rural areas within the state. According to the THECB (2018), the 60x30TX plan specifically addresses the need for secondary and postsecondary institutions to work together to increase college enrollment and higher completion rates for Hispanics or Latinos, African Americans, males (i.e., across all racial/and ethnic groups), economically disadvantaged groups (Pell Grant recipients), and underrepresented students (pg. i). Further, the THECB initiative promotes providing broader access to higher education, greater affordability, and cost efficiency through the 60x30TX initiative by 2030, with at least 60% of Texans ages 25-34 earning a certificate or college degree (THECB, 2018).

The 60x30TX higher education strategic plan consists of four targeted goals to be accomplished by 2030: (1) By 2030, at least 60% of Texans ages 25-34 will have a certificate or degree; (2) By 2030, at least 550,000 students will complete a certificate, associate, bachelor's, or

master's from an institution of higher education; (3) By 2030, all graduates from Texas public institutions of higher education will have completed programs that train them for identified marketable skills; and, (4) undergraduate student loan debt will not exceed 60% of first-year wages for graduates of Texas public institutions (THECB, 2018).

To accomplish the first goal, which is that at least 60% of Texans ages 25-34 will have a certificate or degree, students that participated in dual credit or dual enrollment could meet this goal if they completed the Level-1 workforce certificate. Other state strategies involve focusing on advising practices to re-enroll and encourage stop-outs with more than 50 semester credit hours to complete a degree or certificate, work closely with the Texas Workforce Commission (TWC) to identify new job fields, and update industry information regularly, and report on how colleges and universities are helping to progress toward the workforce goals. As of 2020, the THECB reported that 376,000 students have attained the workforce goal and 58% of Texas public high school graduates enrolled in higher education institutions as a freshman in the first fall after high school graduation.

To accomplish the second goal, which is no less than 550,000 students will have completed a certificate, associate, bachelor's, or master's degree from an institution of higher education by the year 2030; this may be achieved by calculating the number of dual credit students that completed the Level-1 workforce certificate. The THECB (2018) posits that data from the Bureau of Labor Statistics states that students do not experience much of an economic lift from college attendance unless they complete the degree or an undergraduate certificate. Completing a degree confers those students received total exposure to the needed skill training and knowledge connected to their academic program.

As for the third goal, it states that all students graduating from a Texas public higher education institution will have developed marketable skills. However, for dual credit students enrolled in the Level-1 certificate program, this state goal may be more challenging since workforce opportunities and marketable skills tend to change over time. According to the THECB (2018), this goal will require employers in the state and institutions to work together and monitor goal attainment and student success through reporting data on the number of targets that entered the workforce upon completion and remained employed. Reference to institutional targets is defined as graduates that are either enrolled in higher education or entered the workforce one year after completing a workforce certificate or degree program.

Based on data from the last 15 years, the targeted goal is 80% of students completing a college degree in a marketable job area. Since the year 2000, this metric has remained five percentage points within the set goal. The fourth goal is that by 2030 undergraduate student loan debt will not exceed 60% of first-year wages for graduates of Texas public institutions. For dual credit students in the state of Texas, they have the benefit of not having the financial burden of paying tuition for dual credit courses. Current and former participating dual credit students and their parents realize the potential savings on paying for a college education and reducing college debt for the DC student and parent plus loans. The tuition savings for DC students is possible because the Community College Board of Trustees in Texas voted to waive the college tuition and fees for enrolled dual credit students (THECB, 2018).

This bold initiative and similar ones operating in other states, have helped higher education institutions meet national and statewide goals through enrollment partnerships with high schools to offer various dual credit pathways. The secondary and postsecondary partnerships are just one approach to addressing the concern of college enrollment and

completers (Taylor et al., 2015; Terranova, 2019). Historically, public community colleges have an open-admissions policy, and are multi-college institutions with equitable access to large comprehensive campuses that serve the local communities. The college's labor market commitment has contributed significantly to the workforce's bottom line regarding producing skilled workers. By retaining students and providing seamless matriculation for dual credit students during and after high school completion, the state of Texas is preparing students to enter the skilled workforce market.

TEXAS DUAL CREDIT AND POSTSECONDARY FUNDING STRUCTURE

In the state of Texas, the Texas Association of Community Colleges (2018) reported that community colleges in 2019 enrolled over 91% (161,631) of dual credit students. Furthermore, they posited that over 80% were Hispanic, and 37% to 46% were African American high school students. The Texas state funding sources to pay for tuition cost, transportation, required fees, and course textbooks are offered to students participating in the program at no cost to them. Dual credit students also receive access to community college libraries, open computer labs, writing labs, counseling, tutoring, financial aid counseling, and other supportive services available to the traditional age college population. The entry-level readiness evaluation process, commonly used to assess one's academic ability is the Texas Success Initiative Assessment (TSIA). It is used to predict one's college readiness, but in the case of DC, it is not required for students that choose to enroll in a workforce education Level- 1 Certificate program or another career prep training program.

State funding is available for both public-high school districts and public and private colleges located in Texas. However, colleges can only fund students through a tuition waiver if they are enrolled in one type of postsecondary program. Either the student is enrolled in a core

curriculum DC program, career and technology workforce program, or taking foreign language courses offered at the college. College administrators have asserted that dual credit has become competitive and popular among high school students. As a result, colleges nationwide are seeing a growth in college enrollment, which is now requiring them to make programmatic and fiscal structural changes to address funding and revenue shortages connected to issuing DC tuition waivers.

One approach proposed by college administrators is to implement cost containment actions coupled with a balanced scorecard that provides a funding formula on how to strategically determine and predict needed program expenditures for the budget year (DCCL Texas Panel, 2020). However, although dual credit enrollment has increased significantly and is beneficial academically and socially to high school students, critics of the program postulate that financially, community colleges do not realize a direct or immediate return for what they spend on providing expected and unexpected DC access (Hunt, 2007). Anticipated expenses linked to supportive services, facility cost, computer software, certification testing fees, necessary technology, textbooks (e.g., digital access and printing), and instructional fees have raised concerns regarding how to control the dual fiscal cost connected to the expansion of the DC and traditional programs (Hunt, 2007).

TEXAS DUAL CREDIT PROGRAM

Increasing college enrollment and dual credit programs will help advance the state's legislated goal to accomplish Texas' 60x30TX completion plan by 2030. The National Center for Education Statistics (NCES) (2017) reports that Texas ranked fifth in the nation for its high-school graduation rate. The nation's high school graduation rate was 84.1%, and Texas's was 89.1%. The target population for dual credit are ages 15 to 19 years, which represents 1,926,342

for Texas, 304,390 for Harris County, and 138,960 for Houston. Overall, the young adult population is classified between the ages of 15 to 34 years old and includes dual credit students who are currently enrolled in Texas high schools across the state. The total Texas population for the young adult category is 4,295,604 with 15 to 19 years old representing 7.1% of the population within that age group.

The purposeful expansion of dual programs represents a fundamental shift in the goals of dual enrollment and a realignment of the relationship between postsecondary colleges and high schools. According to a report authored by the NCES (2017), a federal agency that collects national data on educational programming and the U.S. Census Bureau, Iowa leads the nation with the most significant percentage of students under 18 years old taking college credit classes. In 2016, half of their high school juniors were concurrently enrolled in college-level courses and high school. Since 2010, under the former President Obama administration and in the current Biden administration, public two-year colleges have received years-long stakeholder support at the federal level, which included the First Lady Dr. Jill Biden, who's a professor at the community college level (Biden, 2010; Oxford Analytica, 2021).

Former education secretary Betsy DeVos had also shown support for the community college system and the significance of dual enrollment to advance the learning of high school students. When she visited the Florida's Valencia Community College, she praised its dual enrollment program, pointing out that dual-enrollment and advanced manufacturing programs had created exceptional educational and career opportunities for students (Russon, 2017). This viewpoint undergirds the significance of dual credit and the concurrent enrollment movement, which is tied to decreasing a student's time in college, lowering tuition costs, and offering rigorous college-level courses to raise college readiness.

In a study conducted by Hoffman and Vargas (2010) and Ganzert (2014), they examined college persistence rates across 64 higher educational institutions and found that former DC/DE students entered college with 20 or more college credits and had a higher persistence rate in comparison to non-DC/DE enrolled students. Similarly, Hinojosa and Salinas (2012) examined the retention rates relative to the University of Texas-Pan America, located in the Southwest region. They found that full-time students that earned college credits in a dual enrollment program had a higher first to second-year persistence rate of 81%, respectively, while the retention rate was 62% for traditional-age students that did not earn postsecondary dual credit hours prior to full-time college enrollment. However, research conducted by Jones (2014) on dual enrollment at one community college location, did not strongly reveal the value of the dual credit program.

She reported that there were modest comparative differences in students' cumulative GPAs (89.86% vs. 86.23% respectively), and the year-to-year student persistence rates (74.19% to 73.95%, respectively) was not significant in contrast to full-time enrolled students that did not have prior dual credit/or enrollment as part of their high school experience. As such, the indirect implication of her research is that it suggested that dual credit or enrollment was not a comprehensive one program fits all phenomenon, meaning it is not going to produce significant student outcomes across all regional institutions and classroom environments.

The findings derived from her study indicated that first, former DC/DE participants that matriculated full-time into the college setting benefited academically and developmentally (i.e., motivation and self-confidence to persist) from the early college experience at the community college (Grubb et al., 2017; McKeown-Moak, 2009). Secondly, institutional commitment, regular faculty interactions, and college advisor feedback are needed to help former strategically

and current DC/DE students remain motivated to persist in their freshman and subsequent year to complete their vocational training program or transfer degree goals (Pescitelli, 1996).

DUAL CREDIT AND WORKFORCE CERTIFICATE

In the state of Texas, two and four-year higher education institutions have entered into partnerships with local high school districts to offer multiple dual credit pathways to obtaining early college credits and workforce career certifications. Educators view the dual partnership as the resolve to increase completers in higher education (Taylor, Borden, & Park, 2015; Terranova, 2019). Community Colleges provide students with seamless matriculation to former dual credit graduates. In 2018, one community college in the state of Texas became the first workforce program in the institution's history to offer a Business Technology-Medical Office Specialist Specialization Certificate Level-1 to high school dual credit students in partnership with an Independent School District (ISD). When the first cohort of dual credit students completed the required courses to earn the Level-1 certificate, they graduated from secondary high school with a diploma *and* a Level-1 business technology-medical office assistant specialist specialization certificate. As a dual credit workforce program, these students, upon graduation have the opportunity to continue their postsecondary education by enrolling in the community college as full-time students to complete the AAS degree following completion of the Level-1 Certificate. However, although strongly encouraged, dual credit students are not required to matriculate after high school completion as full-time college students.

Community colleges can help students: (1) continue their studies in the community college Business Technology department and earn the AAS Degree in Medical Office Specialist, or transfer to a four-year college, (2) choose to enter the workforce with their Level-1 Certificate as a medical coder, medical transcriptionist, or medical office specialist, or (3) complete both. In

other words, the stackable workforce credential, which awards transferrable college credit, may potentially improve their earning potential immediately following completion of their high school program or shorten their degree plan as transfer students to a four-year institution (Ganzglass, 2014; Williams, 2010). The level-1 certificate workforce initiative and high school partnership is expected to produce successful enrollment outcomes for high school students and benefit stakeholder groups interested in increasing student access to community college programs (McKeown-Moak, 2009; Terranova, 2019).

CHAPTER SUMMARY

Community Colleges are two-year institutions that are historically designed to meet the local needs of their community and residents. Through multiple DC partnerships with local area high school districts, community college systems have engaged in implementing retention strategies to improve secondary student's access and success in taking college-level coursework. When DC students complete a level-1 certificate as a dual credit participant, they can enter the job market or transfer earned college credits to a 4-year college or university to shorten their degree plan. These ISD partnerships provide various career and higher education opportunities that benefit students and raise their level of college readiness when they matriculate into various higher education programs (Grubb et al., 2017; Hope, 2017; McKeown-Moak, 2009; Terranova, 2019). Specifically, the purpose of the 60x30TX Texas initiative is to close the skills and higher education gap to meet the state's future workforce needs and increase college enrollment. Lawmakers approved the 60x30TX plan throughout the state to support overall student success while simultaneously increasing the college enrollment of underrepresented and diverse high school student populations.

In particular, the 60x30TX initiative gives diverse and underrepresented dual credit students across the state a head start in enrolling in postsecondary programs and courses at either their respective high school campus or onsite at the community college. In the following section, Chapter 3, the methodological approach employed for the study is presented. The rationale for the methodological approach is explained and a thorough discourse on the research design for the current study, the role of the researcher, the development of the BT-DCW Handbook as the dissertation product, the field test procedure for expert feedback, and limitations and assumptions associated with the study design is discussed in-depth.

CHAPTER THREE: METHODOLOGY

INTRODUCTION

Community college systems are committed to increasing student access to higher education opportunities, while simultaneously addressing the growing demand for a more college-educated and technologically skilled workforce. Higher education practitioners have expressed that they must have an in-depth understanding of what institutional strategies are needed to influence college enrollment and retention among college-age and dual-credit high school students (Bers, & Smith, 1991; United States, 2014). Some of the researchers on dual credit classes have suggested that "dual enrollment is a central strategy for increasing the college-going rates of high school students (Hoffman et al., 2009, p. 46). This assertion may suggest that the dual credit program is consistent with the community college's mission and may lead to higher postsecondary performance outcomes over time for high school participants and traditional-age college students (Jones, 2018).

There is an excessive number of research studies associated with dual credit and dual enrollment programs to earn transfer college credits at 2- and 4-year institutions in the literature. However, very few empirical studies on the retention and persistence of dual credit students enrolled in an occupational-oriented Level-1 workforce certificate program at the community college level (Marshall & Andrews, 2010). To address the literature gap, the purpose of the current study was first to explore what instructional and programmatic strategies are needed to effectively improve the retention, persistence, and matriculation of dual credit high school

students enrolled in the Level-1 Business Technology - Medical Office Specialist Certificate (21 credits) at one urban community college system in Southeast Texas.

The second goal was to understand why dual credit students that completed the Level-1 workforce certificate choose not to matriculate and pursue the corresponding AAS degree after graduating from high school. Given this literature gap, the researcher developed a department BT-DCW Handbook as the final product for this dissertation study. The handbook was designed for education professionals such as the dual credit faculty, counselors, advisors, program administrators, and Department chairs connected to the dual credit program. The content of the BT-DCW handbook include background information on the dual credit program, higher education program initiatives, program objectives, and first-hand strategies on effectively supporting dual credit students' enrollment so they can enter the workforce after high school or matriculate complete AAS degree program. For the methodology chapter, the following sections presented are the research questions, methodological design, role of the researcher and biographical notes, development of the BT-DCW Handbook, field test procedures, study limitations and assumptions, and a chapter summary.

RESEARCH QUESTIONS

1. **Research Question 1.** How does the workforce Business Technology Certificate Program prepare dual credit students academically to persist in a 2-year Associate Degree Program or Transfer to a 4-year degree program?
2. **Research Question 2.** What individual experiences or institutional factors significantly influence the persistence and motivation of dual credit students and their ability to complete the Level-1 workforce degree program after receiving the high school diploma?
3. **Research Question 3.** What role do dual credit faculty and college counselors have in strategically helping dual credit students remain motivated to complete the Level-1 certificate program before graduating high school?

METHODOLOGICAL DESIGN

A product dissertation was selected as the research design for the present study on the retention and persistence of high school dual credit students enrolled at a community college. The product dissertation will help expand professional knowledge relative to operationalizing, planning, and improving the overall dual credit program at the community college level. Since the investigative focus for the study was to examine what instructional and programmatic changes are needed to improve the retention, persistence, and matriculation of dual credit students enrolled in a Level-1 Business Technology community college workforce certificate program, the main objective was to develop a practical administrative Handbook (BT-DCW) as a resource tool for community college practitioners, high school administrations, coordinators, and student advisors.

In the university context, Maxwell and Kupczyk-Romanczuk (2009) described the product dissertation as an "alternative form of scholarship to the usual Ph.D. dissertation" (p. 1). In doctoral education, the product dissertation concept is similar in meaning and purpose to the final product or portfolio created by an artist working in the creative arts. From the higher education perspective, the product dissertation is considered a coherent and flexible form of scholarship that allows a practitioner or researcher to argue and present their professional expertise and experience on the subject to resolve real workplace problems in real time.

Similar to the traditional Ph.D. dissertation study, the structure of the developed product begins with an argument (issue) and includes an in-depth literature review to answer the research questions and expand knowledge on the research study topic (Gough et al., 2017; Johnson, 2005). For this study, knowledge gained from performing the literature review is integrated into the BT-DCW Handbook and linked to the proposed strategies presented in the final product dissertation. However, to ensure the quality of the final product, it was critical to have

knowledgeable and experienced expert reviewers evaluate the content in each section of the BT-DCW Handbook (see Appendix F). Thus, these five DC experts used for the field test helped complete the final step about evaluating the quality, accuracy, and validity of the content used in the final dissertation product and making recommendations for improving the handbook.

ROLE OF THE RESEARCHER AND BIOGRAPHICAL NOTES

The researcher is currently a department chair and former full-time professor at an urban community college in Texas that taught in an onsite dual credit program at the high school campus. She is also the sole developer of the BT-DCW Handbook, which was presented as a final product for the present dissertation study on the dual credit business technology Level-1 workforce certificate program. With over 30 years of combined leadership experience in private industry and higher education, the researcher has formed critical partnerships and relationships with internal and external stakeholders to positively support the retention of dual credit students, learning and development, and occupational training.

These valuable relationships and partnerships have helped provide the information needed to develop the BT-DCW Handbook, designed to assist dual credit faculty, administrators, counselors employed in the community college workforce department and high schools. The critical steps to develop the BT-DCW Handbook included reviewing numerous sources of relevant literature and textbooks, reviewing regional and national databases on dual credit enrollment, and examining public information on the high school student's experience in college-level programs (Coulehan & Well, 2006; Duquia, et al., 2014; Patton, 2015; Yin, 2018).

THE BUSINESS TECHNOLOGY DUAL CREDIT WORKFORCE HANDBOOK

On the Cambridge Dictionary (n.d.) website, the term *handbook* is described as a book that contains information and advice about a particular subject matter. The present BT-DCW

Handbook derived from the current literature review and implications for practitioners included a discourse on structural expectations, college readiness, the role of the community college, and predictors of program completion (Kretchmar & Farmer, 2013). For the most part, the handbook is designed to serve as a reference guide or tool for new and current faculty members, college counselors, college advisors, department chairs, and ISD partners from the high school side of the dual credit program. The BT-DCW's Handbook content in each section provides an in-depth discourse on the DC program, dual credit retention, program activities, first-hand strategies to improve student persistence positively, and how to retain students and help them matriculate to earn the AAS degree after completing the high school diploma.

The essential parts of the BT-DCW Handbook include seven relevant sections that are evaluated by a group of FTEs (see Table 2). The seven sections, with each part having identified FTEs to assess the content are: (1) Introduction to Dual Credit, (2) Student Role and Persistence, (3) Retention Initiatives and Processes, (4) Resource Allocation, (5) Program Strategies, (6) Discussion and Reflection, and (7) Appendices.

Table 2: Sections of the BT-DCW Handbook

SECTIONS OF THE BT-DCW HANDBOOK	FTEs
1. Introduction to Dual Credit	Instructor, Counselor, and Department Chair
2. Student Role and Persistence	P-16 Director, Instructor, Department Chair, Counselor
3. Retention Initiatives and Processes	AVC, Instructor, P-16 Director, Counselor
4. Resource Allocation	Department Chair, Counselor, and P-16 Director
5. Program Strategies	Instructor, P-16 Director, AVC, and Counselor
6. Discussion and Reflection	The Researcher
7. Appendices	Not assessed by FTEs

The descriptions below are associated with the seven sections of the handbook and need to be considered when reviewing each section.

Introduction to Dual Credit. This particular section provides a discussion on different dual credit options, the purpose of the dual credit program, and what is expected of students enrolled in college-level coursework during their secondary learning experience in the workforce certificate program and postsecondary matriculation as full-time students into the community college environment.

Student Success and Persistence. In this section, an overview of how the dual credit program can improve student learning and performance is discussed, and the role of the student in furthering their own higher education experience, meaning how to remain academically committed and focused on program completion. This particular section also includes program planning advice that focuses on the steps and institutional mechanisms involved in planning and implementing the dual credit program to improve the persistence rates. It also informs readers and helps them to understand the importance of securing internal and external stakeholder involvement (faculty, support staff members, parents, program coordinators, high school counselors, college counselors, facilities staff, community members, and administrators with decision-making power) to ensure different parts of the program are implemented successfully and effectively semester-to-semester.

Retention Initiatives and Processes. For students with limited knowledge or experience relative to DC, this section is designed to help faculty members and counselors understand the significant retention initiatives and dual credit program operations, decrease student attrition, and increase program completion rates.

Resource Allocation. This section is dedicated to discussing the programmatic resources and financial support needed at the state and local levels to operationalize the program effectively

Program Strategies. This section identifies each proposed strategy in the final dissertation product. These strategies are presented as best practices that align with the program objectives and provide suggestions on what metrics to use to measure and report student grade progress, persistence rates semester-to-semester, and matriculation as traditional-age students attempt to pursue the AAS workforce degree for medical office specialists when they graduate from high school. Within the BT-DCW Handbook, program strategies are explained in the handbook.

Strategy 1. Develop critical collaborations. This information is in Section 3: Retention Initiatives and Processes and Section 4: Resource Allocation.

Strategy 2. Provide student access to technology and computer labs. This strategy is presented in Section 3: Retention Initiatives and Processes.

Strategy 3. Individualize student support services. This can be found in Section 2: Student Role and Persistence.

Strategy 4. Secure adequate facilities and program resources. This can be found in Section 3: Retention Initiatives and Processes and Section 4: Resource Allocation of the handbook.

Discussion and Reflection. This section summarizes the researcher's final thoughts and reflection on the responsibilities connected to the DC instructional mission and resources needed to effectively coordinate the dual credit workforce program and produce successful student outcomes. By having a clear understanding of the department's critical role in retaining and matriculating students, DC faculty, administrators, and support personnel are more likely to understand how they can help students successfully complete the dual credit workforce certificate program and matriculate to the AAS degree program.

Appendices. In this section, which was not assessed by the FTEs, the researcher provides essential documents and knowledge for faculty members and practitioners who work closely with the dual credit program. These documents may be helpful to new faculty members unfamiliar with the DC program or for those with limited knowledge and experience working with the dual credit program, dual credit students, and understanding the community college and high school partnership structure.

Guided by an evaluative rubric, the essential parts of the BT-DCW Handbook are evaluated by the FTEs, along with the recommended program strategies and techniques to address major-to-specific concerns regarding instructional delivery, retention, counseling services, institutional resources, and past and current performance of the DC program (see Table 3). The significance of FTE feedback for the BT-DCW Handbook is that it represents the voice of the DC experts (instructors, counselors, administrators, and directors) that have demonstrated a commitment to helping enrolled DC students' progress in the program. Their evaluative input is a valuable context for supporting new retention and funding policies relative to the planning and operations of the dual credit program, working collaboratively with stakeholder, and directing more resources to maintaining student persistence (Berry, 2003). As a result, faculty members and staff may have a better understanding of how to address or correct some of the perceived shortcomings and attrition concerns of the dual credit workforce program (Mulligan & Hennessy, 1990).

Table 3: Evaluative Rubric for the Dual Credit Handbook

FTE EVALUATIVE RUBRIC FOR THE BT-DCW HANDBOOK
1. Does the BT-DCW Handbook clearly explain the DC Level-1 course information, activities, and field trip experience to the hospital?
2. Do you think the course handouts and student activities are helpful and valuable to students' learning experience in dual credit?
3. Does the BT-DCW Handbook address the support services offered in the dual credit program?
4. Does the BT-DCW Handbook provide strategies to increase student motivation in the Dual Credit Level-1 Certificate program?
5. Do the proposed strategies address how to help students matriculate to the AAS degree program?
6. Does the BT-DCW Handbook address receiving faculty support and guidance from instructors to make informed career decisions in the DC program?
7. Does the BT-DCW Handbook address career counseling as a resource from the community college staff and counselors to help them compete for an entry-level position in the business technology field?

FTE EVALUATIVE RUBRIC FOR THE BT-DCW HANDBOOK

8. Do you believe the support resources and academic services offered to DC students help them successfully transition into the community college 2-year degree program? If yes, what services do you view as the most helpful?
9. Do you feel students need to have a mentor or monthly counseling support to help them persist in your AAS program?
10. To improve the quality of the BT-DCW Handbook, are there any final recommendations or remarks that you would like to share?

FIELD TEST PROCEDURES

In the context of the present postsecondary subject matter, the purpose of the field test is to improve the dual credit program and partnership. To determine the relevance and soundness of the proposed BT-DCW Handbook on the dual credit program and partnership, the researcher conducted a field test with a team of five volunteer FTE professionals employed in the higher education and secondary education sector as teachers, counselors, and administrators. In research, a field test is typically described as a formal strategy employed to receive helpful content and editorial feedback from experts with extensive knowledge and experience in the field under study. Relative to this dissertation project, editorial feedback was provided to help determine and improve the quality, accuracy, and potential value of the BT-DCW Handbook and offer relevant suggestions and strategies to address any program concerns pertaining to student persistence, enrollment, and retention issues.

The written and verbal feedback received from the evaluative field test of the BT-DCW Handbook was not treated as collected research data, and the field experts were not used as human subjects or study participants (see the HHS Federal regulation for 45 CFR 46 for protection of human subjects). Thus, IRB approval was not required from Ferris State University. The five experienced dual credit experts used for the field-testing activity of the BT-DCW Handbook provided helpful information to improve the document's quality and accuracy. Additionally, their feedback helped guide the revisions conducted and improve the sentence

structure, framing of the issues, simplifying complex sentences, and making the BT-DCW Handbook more user-friendly to education professionals and practitioners working at the secondary and higher education level.

To strengthen the creditability of the BT-DCW Handbook, the researcher addressed the noted confusion and assumed biases, reduced the repetition of certain words, and removed unnecessary information that was perceived to be outside the scope of the dual credit program. Since data collection is not a procedure involved in the field testing of an instrument or guide, IRB approval or an exemption decision from the university was not needed prior to conducting the actual field test. When the study is completed, the proposed BT-DCW Handbook will be made available for public reading. It will be provided to administrators employed on the community college and high school side, dual credit faculty members, and college and high school counselors to improve program planning, student advisement, and breadth of various supportive services. As a result, these institutions may realize a sustainable difference in the retention and persistence rates of the enrolled dual credit students and former dual credit students matriculating from a high school setting to a two- or four-year higher education degree program.

CHAPTER 4: THE HANDBOOK

INTRODUCTION

The overall purpose of the dual credit handbook is to provide an in-depth discussion of the study results relative to the dual credit program and the students enrolling in college-level coursework. Generally, the dual credit handbook can be used by education practitioners and administrators to improve the program design, students' learning experiences, and persistence in the workforce certificate program (McDonald & Farrell, 2012). Currently, as a postsecondary experience, the subsequent persistence for full-time first-year college students after high school completion is an issue for community college workforce programs. Thus, the handbook will also address some of the program challenges and serve as a reference guide for new and current faculty members, college counselors, college advisors, and the high school partners from the school district side of the dual credit program.

BUSINESS TECHNOLOGY DUAL CREDIT WORKFORCE HANDBOOK

Given the current literature gap on community college workforce programs and dual credit, the researcher developed a department BT-DCW Handbook as the final product for this investigative study, with the help of the FTEs. These five individuals are considered experts in the field of DC, which is why they were each assigned a particular section of the BT-DCW handbook to evaluate and provide feedback on the program content (see Table 4). The seven sections of the BT-DCW Handbook include general background information on the dual credit program structure, higher education program initiatives, program performance, and student success objectives. It also proposes relevant strategies to effectively support dual credit students'

enrollment so they can either enter the workforce after high school completion or matriculate into a community college program to complete the AAS degree program. The whole BT-DCW handbook is presented below.

Table 4: FTE Evaluation of the BT-DCW Handbook

BT-DCW HANDBOOK SECTIONS	FIELD TEST EXPERTS	SUMMARY OF FTE FEEDBACK
1. Introduction to Dual Credit	Instructor, Counselor, and Department Chair	<ul style="list-style-type: none"> • The BT-DCW program helps students to academically persist by helping them develop the skills to persist in a full-time college program • The MOS certification can help students secure skilled employment after completion of the high school diploma • DC helps high school students remain motivated to continue their college education and earn the AAS degree • DC is a great pathway to enter college and make it more affordable during and after high school. They can either earn college credit to transfer to a 4-year university or complete the AAS BT degree plan
2. Student Role and Persistence	P-16 Director, Instructor, Department Chair, Counselor	<ul style="list-style-type: none"> • Strategic institutional factors influence a higher level of persistence and motivation among DC students • Wraparound services and career services help with student development • DC students that complete the Level-1 certificate and MOS are strongly encouraged to complete the AAS degree • Professional guest speakers and field trips expose the student to the healthcare BT industry and motivate them to persist in the DC program • The BT program provides DC students with step-by-step guidance to retain them in the program
3. Retention Initiatives and Processes	AVC, Instructor, P-16 Director, Counselor	<ul style="list-style-type: none"> • Wraparound services are a retention initiative that helps monitor and retains DC students

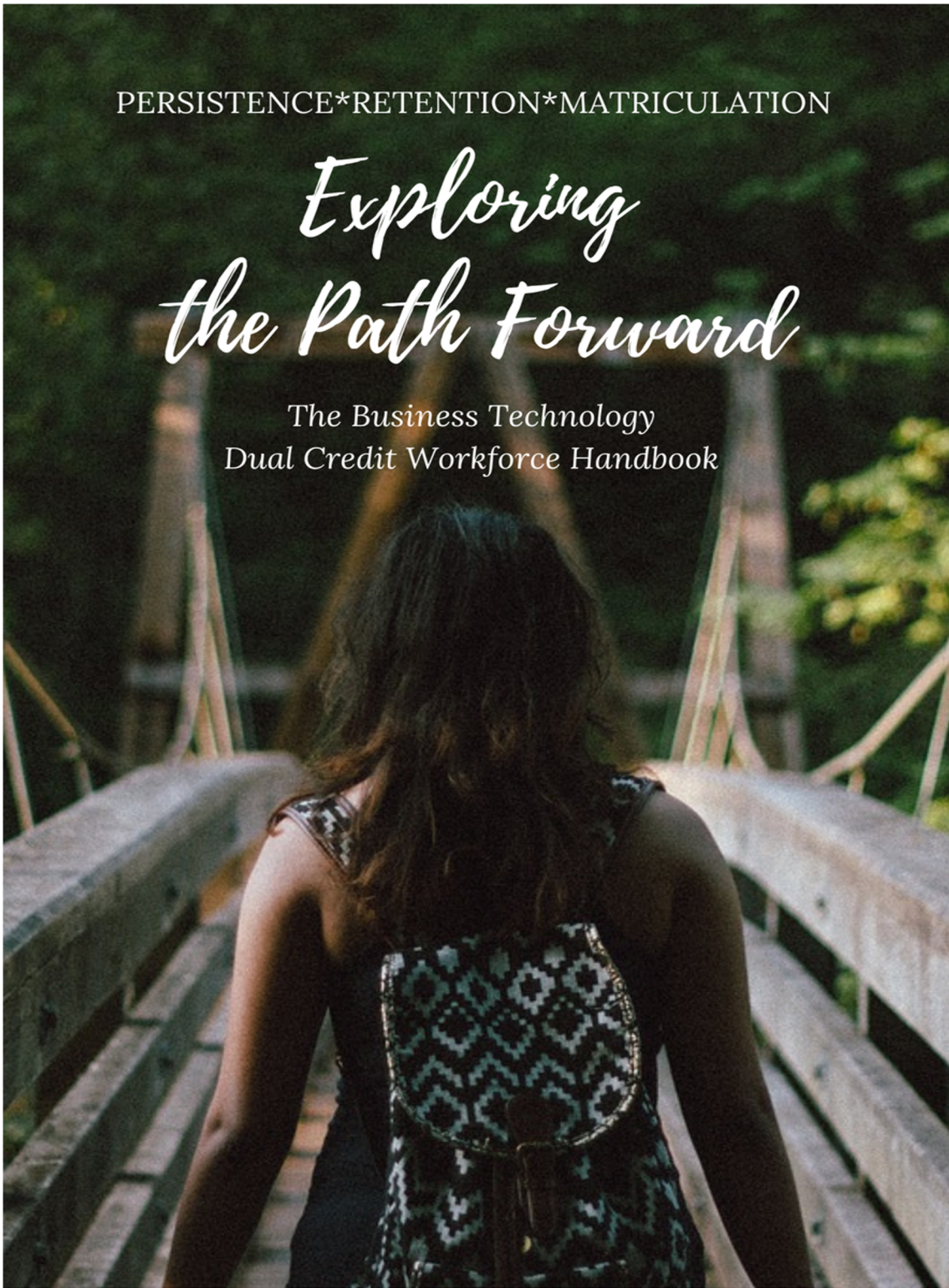
BT-DCW HANDBOOK SECTIONS	FIELD TEST EXPERTS	SUMMARY OF FTE FEEDBACK
		<ul style="list-style-type: none"> • A special scholarship was created to help support DC students matriculate to the AAS degree after high school completion • The BT program works collaboratively with career services to help DC students that obtained the Level-1 certificate and MOS with job placement • DC students are offered tutorials if they are struggling in a course
4. Resource Allocation	Department Chair, Counselor, and P-16 Director	<ul style="list-style-type: none"> • Counselors help DC students with applying for the Pell-grant and institutional scholarships explicitly created for DC students • The Department Chair for the BT department established a budget line item to pay for DC students to take the MOS testing and retesting if they complete the program
5. Program Strategies	Instructor, P-16 Director, AVC, and Counselor	<ul style="list-style-type: none"> • Provide group and individual career counseling to students to improve their resume writing, interviewing, and skill development • Counselors and instructors are asked to monitor student progress and grade performance • To develop a trusting relationship with DC students, counselors and instructors must demonstrate a commitment to their success by engaging them in different professional development activities • Instructors should implement an open pedagogy approach to connect and engage them in the DC program • Professors must get out of their comfort zone and try different teaching methods to engage DC learners
6. Discussion and Reflection	Student Researcher	<ul style="list-style-type: none"> • The BT-DCW handbook was created for new and experienced DC instructors, college advisors,

BT-DCW HANDBOOK SECTIONS	FIELD TEST EXPERTS	SUMMARY OF FTE FEEDBACK
		<p>department chairs, and other administrators to help increase their understanding of the DC workforce program and positively impact the persistence and retention of DC students enrolled in the level-1 certificate program. With the feedback gained from the FTEs, the handbook presents pragmatic and relevant content and program strategies that contributed to DCW program planning, individualizing student support services, effectively integrating career counseling into the program, MOS testing requirements, and how to retain students and help them successfully transition into the AAS program after high school completion</p>
7. Appendices	Instructor, P-16 Director, AVC, and Counselor	<ul style="list-style-type: none"> • Not assessed by FTEs

PERSISTENCE*RETENTION*MATRICULATION

Exploring the Path Forward

The Business Technology
Dual Credit Workforce Handbook



Mia D. Taylor

**The Business Technology
Dual Credit Workforce Handbook**

ABOUT THE AUTHOR	5
KEY SECTIONS OF THE BUSINESS TECHNOLOGY DUAL CREDIT WORKFORCE HANDBOOK	6
FIELD TEST: EXPERTS	8
CONFIRMED VOLUNTEER FIELD TEST EXPERTS	8
FIELD TEST EVALUATIVE RUBRIC: BUSINESS TECHNOLOGY DUAL CREDIT WORKFORCE STUDENT RETENTION HANDBOOK	9
PURPOSE: KEY SECTIONS OF THE DUAL CREDIT WORKFORCE HANDBOOK	11
SECTION 1: INTRODUCTION TO DUAL CREDIT	12
OVERVIEW OF THE BUSINESS TECHNOLOGY PROGRAM	12
Level-1 Certification	12
UNDERSTANDING THE COMMUNITY COLLEGE AND SCHOOL DISTRICT (SD) WORKFORCE PARTNERSHIP	13
Diverse student enrollment	14
Coordinating the Program	14
SECTION 2: STUDENT ROLE AND PERSISTENCE	15
WHAT IS STUDENT PERSISTENCE & RETENTION (P&R)?	15
HIGH IMPACT PRACTICE ALERT & INTERVENTION MIA'S EARLY ALERT "QUARTERLY" SYSTEM: 3-STEP PROCESS	16
STUDENT'S ROLE RELATIVE TO THE COLLEGE EXPERIENCE	18

NATIONAL, STATE, AND LOCAL POSTSECONDARY INITIATIVES	18
NATIONAL INITIATIVE	18
STATE INITIATIVE - 60X30TX.....	18
LOCAL	19
INDIVIDUALIZE SUPPORT SERVICES.....	19
BALANCED SCORECARD FOR MATRICULATION	20
SECTION 3: RETENTION INITIATIVES AND PROCESSES.....	22
STUDENT SUCCESS AND INTERNAL & EXTERNAL STAKEHOLDERS	22
COMMUNITY COLLEGE ENGAGEMENT	23
FACILITY AND COMPUTER LAB AGREEMENTS	25
SECTION 4: RESOURCE ALLOCATION	26
STRENGTHEN PARTNER RELATIONSHIPS	26
SUSTAIN AND MONITOR BUDGETARY SPENDING AND ALLOCATIONS	26
STUDENT FINANCIAL SUPPORT	28
ESTABLISH TUITION SCHOLARSHIPS	28
SECTION 5: DISCUSSION & REFLECTION.....	30
RESEARCHER'S FINAL COMMENTS.....	30
SECTION 6: APPENDICES.....	32
BALANCED SCORECARD	33
CASE FOR SUPPORT	34
LETTER OF APPEAL	35

ABOUT THE AUTHOR



Professor **Mia D. Taylor** joined a large suburban Community College in Spring 2008. She brings a plethora of experience and teaches in multiple Centers of Excellence: Business, Digital & Information Technology, and Logistics. She also teaches two special student populations (1) Senior Citizens and (2) Dual Credit. She is an experienced leader in the workforce and in education.

As a dual credit instructor and advocate, she has led high-level engagement and participation in the growth of the Business Center of Excellence through dual credit initiatives. She has also identified and assisted in acquiring the latest technology and equipment within the Business Technology Department, Computer Laboratories, and with an updated software application of the PeopleSoft System.

Mia is very active in the System-Wide Community where she has served as President of the Association of Women in Academia (AWA), Business Technology Advisory Board, Veterans Administration Department, Student Government Association, and an Advisor to Phi Beta Lambda.

In 2010, Mia joined the Faculty Senate, where she continues to serve as a Business Center of Excellence Delegate. She also serves as Chair of Professional Development and oversees the Bedichek-Orman Auction to raise funds for faculty professional development opportunities, the Faculty Conference to encounter new and innovative ideas, and to renew our conviction, the Faculty Retreat for faculty by faculty,

and the Faculty Teaching Excellence Awards that focuses on teaching-learning process. She has actively served and participated in the following Faculty Senate Committees: Benefits & Workload, Compensation, Educational Affairs, Graduation, Instructional Technology, and Policies & Procedures.

Professor Taylor's Professional Memberships and Certifications includes the Accreditation Council for Business Schools and Programs (ACBSP), College Leadership Program (CLP), Center for Teaching & Learning EXemplary Instructor, Curriculum Council; National Business Education Association (NBEA), National Institute for Staff and Organizational Development (NISOD) Award/Presenter, Texas Community College Teachers Association (TCCTA) Chair of Office Technology/Presenter, Canvas Certified, Microsoft Office Specialist Microsoft Office Specialist Certified - Word, Excel, & PowerPoint, Oracle PeopleSoft Certified, and Vignette Certified. One of Mia's most treasured accomplishments was serving on the United States Department of Homeland Security!

Professor Taylor's educational journey includes obtaining her Bachelor of Science in Microbiology from Clemson University, and Master of Business Administration from Webster University. Mia is currently perusing her Doctorate in Community College Leadership from Ferris State University where she hopes this product from her dissertation will be helpful to all dual credit advocates.

**KEY SECTIONS OF THE
BUSINESS TECHNOLOGY DUAL CREDIT WORKFORCE HANDBOOK**

Section 1: Introduction to Dual Credit

- Overview of the Business Technology Level-1 Certification Program
- Understanding The CC and ISD Workforce Partnership
- Diverse Student Enrollment
- Coordinating The Program

Section 2: Student Persistence and Success

- What Is Student Persistence?
- Student's Role Relative To The College Experience?
- National And State Post-Secondary Goals
- Individualize Support Services
- Balanced Scorecard For Matriculation

Section 3: Retention Initiatives and Processes

- Student Success And Stakeholders
- Community College Engagement
- Facility And Computer Lab Agreements

Section 4: Resource Allocation

- Strengthen Relationships With Partners
- Student Financial Support
- Sustain And Monitor Budgetary Spending And Allocations
- Establish Tuition Scholarships

Section 5: Discussion & Reflection

- Mia Taylor, Researcher's Final Comments

Section 6: Appendices

- Mia's Early Alert "Quarterly" System: 3-Step Process
- Balanced Scorecard
- Case for Support
- Letter of Appeal

FIELD TEST: EXPERTS

The Field Test Experts (FTE) are a team of dual credit/dual enrollment (DC/DE) experts in the field. The FTE determined the program relevance and soundness of the Business Technology – Dual Credit Workforce Student Retention Handbook (BT-DCW) on dual credit. The field test performed is described as a formal strategy from experts in the field. To strengthen the creditability of the BT-DCW Handbook, several issues were addressed, such as the noted confusion and assumed biases, reduced repetition of word choices, and removed unnecessary information that was perceived to be outside the scope of the researched topic.

The FTE provided the following background information:

1. Years of experience in higher education.
2. Briefly described years of experience working with the dual credit program.
3. Years of educational background.

Confirmed Volunteer Field Test Experts

The confirmed FTEs were assigned sections from the BT-DCW Handbook to review. The FTE for Section 1: Introduction to Dual Credit was reviewed by DC/DE Instructors. For Sections 2: Student Role and Persistence, and Section 3: Retention Initiatives and Processes DC/DE College Readiness Administrators reviewed these sections with titles of Associate Vice-Chancellor, P-16 Director, and Dean, and by the College of Student Success with the titles of Vice-Chancellor, and Student Success Coach. Section 4: Resource Allocation was reviewed by the College of Finance and

Administration with the title of Executive Director. Section 5: Discussion and Reflection was reviewed by the Researcher.

FIELD TEST EVALUATIVE RUBRIC:

BUSINESS TECHNOLOGY DUAL CREDIT WORKFORCE HANDBOOK

The primary role assigned to the experts was to closely examine the BT-DCW Handbook, utilizing a rubric created by the researcher to determine the usefulness of the content, the proposed strategies, overall quality of the product, and make recommendations for revisions. The Field Test Evaluative Rubric is as follows:

Introduction to Dual Credit: For Dual Credit Instructors Only

1. Does the dual credit handbook clearly explain the dual credit Level-1 course information, activities, and field trips to Houston Hospital Systems?
2. Does the textbook digital learning platform and student activities improve student's learning experience in dual credit?
3. Does the handbook address if faculty support and guidance from instructors and counselors are available for career planning while in the dual credit program?

Student Persistence & Success

4. Does the Handbook address the supportive services offered to students enrolled in the dual credit program?
5. Do you feel students need to have an assigned mentor or scheduled counseling meetings to help them matriculate into the AAS workforce program?

Retention Initiatives and Processes

6. Do you believe the Handbook addresses the support resources and academic services needed to help dual credit students successfully transition into the 2-year degree program?
 - a. What services do you view as the most helpful?
7. Does the handbook address career counseling as a student resource to help them compete for entry-level positions in the business technology field?

Finance and Administration

8. Does this section explain how the dual credit tuition and fees, textbooks, and computer access codes for the enrolled students are financed?
9. Are there any other pertinent financials associated with dual credit that should be included in this section?

For all Field Experts

10. To improve the quality of the Handbook, are there any final recommendations or remarks that you would like to share with the researcher?

**PURPOSE: KEY SECTIONS OF THE
DUAL CREDIT WORKFORCE HANDBOOK**

The purpose of this dual credit handbook is to focus attention on strengthening the dual credit program and the matriculation of dual credit students once they complete and obtain the Business Technology Level-1 certification during high school.

The Level 1 certificate is a one-year steppingstone of 15 to 42 semester credit hours. It prepares students to enter a specialized workforce career or technical field. A Level 1 certificate award is structured to allow students to move on to a higher-level certificate or Associate of Applied Science (AAS) degree. In addition, students do not need to meet the Texas Success Initiative (TSI) requirement to enroll in a Level 1 Basic Certificate.

SECTION 1: INTRODUCTION TO DUAL CREDIT

This particular section provides a discussion on different dual credit options, the purpose of the dual credit program, and what is expected of students enrolled in college-level coursework during their secondary learning experience in the workforce certificate program and postsecondary matriculation as full-time students into the community college environment.

Overview of the Business Technology Program

Level-1 Certification

The Business Technology (BT) Department is an *Exemplary* program validated by the Texas Higher Education Coordinating Board (THECB). The BT department offers a Workforce/Career & Technical Education (CTE) degree and certification program

(certificates level 1 and 2, and Associate of Applied Science Degree). The Level-1 certificate is a steppingstone or pathway for students to begin their postsecondary education and prepare for high-skill employment through advanced, rigorous coursework. Level I Certificate workforce/CTE is the only program that does not require the Texas Success Initiative (TSI) assessment to be deemed college-ready (no minimum Reading, Writing, or Mathematics score requirements; the TSI is waived).

All courses offered in the Business Technology Department are approved and found in the Workforce Education Course Manual (WECM), the Coordinating Board's web-based inventory of current workforce education courses. The BT courses are designed to help students develop the basic foundational knowledge, and entry-level skills students needed to become proficient and compete in careers related to administrative assistant, medical coding, medical transcriptionist, and various legal concentrations (e.g., paralegal technology, legal secretary).

All the Business Technology faculty are community college employees and serve a vital role in bridging high school and rigorous college performance standards. In order to teach in the BT department, faculty must acquire a Microsoft Office Specialist Certification Microsoft Office Specialist. ALL Business Technology faculty members have obtained the Microsoft Office Specialist certification awarded by the nationally accredited "**Certiport**" credentialing organization. Business Technology students are also given the same opportunity to pursue the Microsoft Office Specialist certification when they complete the computer applications or keyboarding classes.

Understanding the Community College and School District (SD)

Workforce Partnership

Texas has provided free public education to the children of this state since 1854. Since the 1990s, community colleges and school districts have formed educational partnerships to aid students in earning postsecondary credit hours before graduating from high school or an Associate Degree. The significance of the stakeholder partnerships is to help students develop the occupational skills needed to enter careers in business, the sciences, and technology. The Texas Legislature in 2008 required school districts to provide college credit to high school students. All workforce faculty have a combination of academic preparation and work experience. This combination qualifies them to teach in their respective discipline and complies with the regional accreditation body of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) requirements.

The *Exemplary* Business Technology Department currently has dual credit partnerships with Independent School District (ISD), Municipal School District (MSD), private schools, charter schools, and home school programs. These partnerships are essential to developing an educated workforce in the future.

Diverse student enrollment

Student diversity in dual credit classrooms is critical because students have the opportunity to interact and learn from one another. Texas is experiencing a rapid increase in k-12 diversity, contributing to a representative increase in the dual credit

student population. In particular, more urban students, males, and lower socioeconomic students represent the student enrollment.

Coordinating the Program

The Texas Higher Education Coordinating Board (THECB) is the organization that monitors the dual credit program as a system for eligible high school students to enroll in college-level courses to receive college and high school credits. In Texas, dual credit students can begin taking college courses starting in the **9th grade** without limitations (House Bill 505). Workforce courses can transfer to colleges and universities depending upon the articulation agreement with various universities.

SECTION 2: STUDENT ROLE AND PERSISTENCE

In this section, an overview of how the dual credit program can improve student learning and performance is discussed, and the role of the student in furthering their own higher education experience, meaning how to remain academically committed and focused on program completion. This particular section also includes program planning advice that focuses on the steps and institutional mechanisms involved in planning and implementing the dual credit program to improve the persistence rates. It also informs readers and helps them to understand the importance of securing internal and external stakeholder involvement (faculty, support staff members, parents, program coordinators, high school counselors, college counselors, facilities staff, community members, and administrators with decision-making power) to ensure different parts of the program are implemented successfully and effectively semester-to-semester.

What is Student Persistence & Retention (P&R)?

Student persistence calculates the continued enrollment percentage of students who return to college in their second year. Additionally, the retention rate is the percentage of students that return to the same institution for their second year. Presently, the department's challenge is how to increase the number of dual credit students who complete the Level-1 certificate to persist and obtain the AAS degree and receive a full academic scholarship.

To increase the P&R, we must strengthen our relationship with each student to ensure that faculty members genuinely care about their success. First, we must build their self-esteem and maintain a can-do attitude when delivering instruction. Second, we

must communicate personalized emails and respond immediately to faculty emails. Follow Mia's High Impact Practice Alert & Intervention an Early Alert "Quarterly" System that is a 3-Step Process to receive clear feedback and closely monitor their progress by monitoring course attendance, course engagement and semester grades.

High Impact Practice Alert & Intervention

Mia's Early Alert "Quarterly" System: 3-Step Process

Sustaining student success is an institutional priority to achieve community college student success. Implementation of the early alerts and Interventions at the two-year community college level may increase student success among higher educational institutions and reduce student attrition. With current alert and interventions systems in place, it may replace ineffective practices with innovative strategies to produce organizational success for at-risk students.

Mia's Early Alert "Quarterly" System: 3-Step Process



Mia's Early Alert "Quarterly" System: 3-Step Process

1. On the first day of class, distribute a "***Student Contact***" form to gather the most up-to-date student contact information that the student provides.
2. First Early Alert will be issued on the ***Official Day of Record***.
 - a. Before the *Official Day of Record*, ensure attendance is recorded to reach 100% participation and attendance. Record alerts for each student who arrives late, do not attend class regularly or have several absences.
 - i. Attach supporting documentation (emails, text, messages, calls to cell and home phone numbers) to indicate that you

have reached out to each student to encourage them and offer any assistance.

3. **Quarterly Check-Ups** – Provide two additional checks before the mid-term and one before the withdrawal date to help students persist and complete the course successfully. Before each quarterly check-up, attach supporting documentation (emails, text messages, calls to cell and home phone numbers) to indicate that you reached out to the student to provide encouragement and offer personal assistance.

1st Early Alert will be issued on the *Official Day of Record*.

2nd Early Alert will occur after the first major exam or assignment

3rd Early Alert will be at Mid-term

4th Early Alert will be before the official withdrawal date

Another way to increase P&R is to utilize texting services. Use free texting apps (if you do not want to provide your number) to communicate and connect with the students. I encourage all students to contact me through the LMS Inbox email system. However, since the public health COVID-19 Pandemic, I have personally given enrolled students my cell phone number to contact me immediately if they have an emergency. Believe it or not, it is not abused, and students rarely call me.

Student's Role relative to the College Experience

A significant benefit related to taking dual credit courses is that students will gain and experience rigorous college-level coursework while attending high school. In the workforce, the college experience involves providing an early postsecondary pathway

through the level-1 certificate program. This will help students earn a postsecondary degree much faster to a smooth matriculation into the college environment. Another advantage of the dual credit college experience is that students receive free college tuition, books, and fees at no cost to them.

NATIONAL, STATE, AND LOCAL POSTSECONDARY INITIATIVES

National Initiative

Former President Barack Hussein Obama made a historic initiative in 2009 to strengthen our nation's community colleges and called upon the institutions to enroll five million additional graduates by the year 2020. To support this charge, the Texas Higher Education Coordinating Board (THECB) made it its mission to provide leadership in promoting improved student access, affordability, quality, success, and cost efficiency through the 60x30TX state initiative. Globally, this initiative will produce a competitive workforce that positions the state of Texas as an international leader.

State Initiative - 60x30TX

The 60x30TX higher education strategic plan consist of four goals:

1. By 2030, at least 60 percent of Texans ages 25-34 will have a certificate or degree
2. By 2030, at least 550,000 students in that year will complete a certificate, associate, bachelor's, or master's from an institution of higher education in Texas
3. By 2030, all graduates from Texas public institutions of higher education will have completed programs with identified marketable skills; and,

4. By 2030, undergraduate student loan debt will not exceed 60 percent of first-year wages for graduates of Texas public institutions

Local

Specifically, the goal of the 60x30TX state initiative is to close the state's workforce gap through the dual credit or early college high school program. In turn, these programs will provide students the opportunity to earn a workforce certificate in a year. The 60x30TX initiative outlines the strategies needed to support the program completion pipeline. This includes increasing the participation of students, particularly low-income students enrolled in dual credit and other postsecondary college-level coursework. Following the completion of the certificate program, a student can either:

1. Continue their studies in the Business Technology program and work toward completing the Associate in Applied Science Degree; or
2. Choose to enter the workforce with the level-1 credential; or
3. Achieve all of the above

In other words, students can earn stackable credentials that may significantly and immediately improve their future earning potential beyond the high school diploma.

Individualize Support Services

Consistent with the mission of the community college system, research shows that individualized supportive services are critical to affecting student success. In fact, it is at the heart of community college enrollment and is determined by the college's ability to meet the unique needs of diverse student populations in the shortest amount of time. Each academic year, administrators develop operational plans to present to the Board

of Trustees. This annual plan clearly articulates the pathways to achieving the institution's priorities with measurable outcomes. The operational plans identify the owners, actions, timelines, and metrics to achieving the objectives.

The key to achieving student success, which is fundamental to the college's ability to achieve its mission, is ensuring that dual credit participants are college-ready. This means that all students must have access to college advising and support services to help them successfully transition into college-level courses and improve their chance of program completion. The goal is to provide students with different sources of support, such as regular academic advisement and access to college resources like tutoring.

Balanced Scorecard for Matriculation

The Balanced Scorecard – Stackable Credential to Degree Matriculation is a tool used to guide student enrollment into the Career and Technology Education (CTE) workforce program of the Business Technology - Certificate Level-1 (21 credits in two semesters to earn a terminal degree) program. It helps students leave high school with their high school diploma and level-1 certificate credits that can be applied towards the AAS degree. One of the Balanced Scorecard goals is to assist students in continuing their postsecondary motivation and experience seamless enrollment through program completion and graduation.

The Business Technology Level-1 Certificate Balanced Scorecard attempts to highlight the accountability ratings in the Business Technology Department. The Balanced Scorecard is then used to present clear information on where the department is excelling and what areas need improvement. Additionally, the scorecard provides

parents, students, educators, and community partners with an annual update on multiple measures that demonstrate how well students are performing (learning, growing, and achieving).

SECTION 3: RETENTION INITIATIVES AND PROCESSES

Student Success and Internal & External Stakeholders

The college's mission, vision, values, and strategic priorities are grounded in student success and building the existing stakeholder partnerships. The community college's ability to achieve student success is closely tied to the college's ability to uphold its mission while ensuring stakeholders share the same commitment as the institution regarding improving student retention and persistence. Stakeholder commitment is also a shared agreement that demonstrates the institution's mission, vision, and values associated with prioritizing the workforce's needs, community, and maintaining organizational focus. The community college's mission and vision typically serve as a map to guide where the college needs to go and the implications of the vision on student success.

Degree persistence is a principal focus of the Office of College Readiness and Educational Development and supports the dual credit district partnerships, charter schools, and homeschooled students. In the context of student success, one measure of college readiness is evidenced by dual credit students that complete a Level-1 certificate before finishing high school. From the student support frame of reference, student support for dual credit students means aligning student services with student needs to ensure they understand the pathway to obtaining the degree within two semesters (one academic year). Advisors that provide individualized support should help students with career planning and decision-making to enhance their marketable skills and personal development.

Having regularly scheduled interactions with an academic advisor is the beginning of achieving student success. This begins with dual credit students being advised by an assigned advisor knowledgeable of the degree planning pathways. Another source of support for dual credit students is engaging in pre-planning before the semester begins to purchase student textbooks, digital learning platforms, and access codes before day one of instruction. All stakeholders associated with dual credit must be committed to making sure each student enrolled in the postsecondary programs is a completer in obtaining the Business Technology Level-1 Certificate with the opportunity to persist and matriculate toward securing the corresponding AAS degree.

Community College Engagement

Today there are many opportunities to explore and serve the Greater Houston Community and build new partnerships with publicly funded school districts and other public and private educational sectors. These partnerships are normally leveraged to cultivate more effective and efficient student learning opportunities or workforce pathways that lead to higher education attainment and higher-income jobs. To determine a baseline analysis for such positive outcomes, the Balanced Scorecard can be employed as a data analysis mechanism to survey the academic landscape and its correlative alignment to workforce needs. Currently, the Balanced Scorecard is used by secondary and postsecondary colleges and universities to assist stakeholders in addressing dual credit completion goals and initiatives.

In an attempt to meet this targeted goal, the community college Business Technology Department has taken action to provide the necessary certifications and degrees to Houston area high school students that complete the Computer Applications or Keyboarding courses through stackable credentialing. Once Computer Applications or Keyboarding courses are completed, students have the opportunity to attain additional credentials, including the Microsoft Office Specialist Certification Microsoft Office Specialist.

The Microsoft Office Specialist Program provides industry-leading assessments of skills and knowledge through project-based testing. As a result, this gives students and working professionals' real-world exercises to assess and develop their understanding and proficiency of Microsoft Office Applications. The combined Microsoft Office Specialist skill set guarantees that every certified user has the ability to perform the full features and functionality of Microsoft Office, which better prepares them for future integrated academic and workforce opportunities. Additionally, these opportunities can be linked to a student's learning pathway by enhancing their technology skills and career preparation with distinct credentials awarded through Certiport.

Certiport is a nationally accredited organization dedicated to helping students succeed through certification. It is considered the leading provider of certification exams, delivery, and program management services. Entry-level certification helps build a skilled workforce that meets the needs of local employers and government technology

initiatives. Offering the right balance of academic excellence and real-world skills can boost students' confidence and motivation to succeed in school and their future careers.

To further enhance students' learning experiences and increase their marketable skills, dual credit students can also complete the sequence of courses for medical training beyond the computer applications and keyboarding courses. This credentialing opportunity is offered through the American Health Information Management Association and the American Academy of Professional Coders. Although the business department does not offer these exams, students are encouraged to attempt and further increase their skillsets for in-demand job markets.

However, the Business Technology Department's Medical Certificate Level-1 program offered at the community college offers students the textbooks needed to become proficient medical coders. The ICD-10-CM/PCS, CPT, and HCPCS are code sets applied to classify medical diagnoses, procedures, diagnostic tests, treatments, and equipment and supplies. Each student needs to know medical terminology, anatomy, transcription, and a good understanding of different medical code sets.

A partnership with the Houston Hospital System to offer graduates of the level-1 certificate program non-paid training opportunities during the summer is being explored. With such a partnership, students can demonstrate their newly acquired knowledge and skills and medical coding experience. The hope is to create a direct pathway from the classroom to gainful employment in the Houston Hospital System for the students who excel in the program.

Facility and Computer Lab Agreements

All Business Technology computer classrooms are equipped with an electronic device. Usually, a computer desktop or laptop containing the necessary 3rd Party Learning Platforms. However, the community engagement partnerships with school districts, private industry sectors, and homeschooling organizations may not have the same access to these resources due to a lack of availability. To optimize student learning, all participants must have access to reliable and sustainable working equipment on the first day of school.

For example, community college facilities and instruction technology representatives must ensure that every dual credit student is equipped with a working electronic device such as a desktop computer, laptop, tablet, and, if needed, a smartphone for learning. Digital learning platforms must be installed and tested before the semester begins to ensure student success. Which requires faculty, facilities, and computer laboratories to be adequately prepared before the start of the semester. In this instance, the institution has an excellent opportunity to provide effective services through pre-planning and pre-testing to ensure a smooth first-day access experience.

SECTION 4: RESOURCE ALLOCATION

Strengthen Partner Relationships

The institution will need to tell a compelling story or experience to make a case for financial support in fundraising and feasibility to strengthen partner relationships. The shared experience must be one that sparks interest so our partners as stakeholders and the community will care enough to donate money toward the college's needs.

The institution and its website must be welcoming, attractive, informative, and easy to navigate to gain a positive impression that shows its worthiness. Executive leadership within the organization can speak on one accord because of its shared strategic plan and shared governance. Because of their connection with the institution, college trustees are responsible for fulfilling the highly held mandates that benefit the community.

More high school students will enroll in higher education college-ready by adequately funding dual credit and designing smart policies to promote student success. In conjunction with the college's strategic plan, the goal is to develop a robust proposal for our educational partnerships that support access and growth through operational and financially sustainable structures. Resources for implementing the strategic plan will include critical individuals or groups, technology, time, space, and adequate funding. Lastly, all plans must align with an Accreditation Commission as all activities, objectives, and strategic plans rely on institutional resources to support the college's mission.

Sustain and Monitor Budgetary Spending and Allocations

In general, the most critical reason to sustain and monitor budgetary spending and allocations is that it provides a framework for making budgetary decisions regarding funding resources. For this reason, the budget cycle and the planning cycle must be aligned, not only on an annual basis but also over the long term. Make sure that the process follows the academic and human resources calendar year. The calendars must coincide so that each is mutually supportive.

Furthermore, an annual cycle assessment is completed to ensure resources are identified and used to promote student success. This annual cycle assessment provides a forum for institutional discussions regarding any immediate priorities for resource allocations and how they can be integrated to benefit involved stakeholders and community partners. This will present the opportunity to understand the nature of the competing demands on financial resources and how decisions are made.

To maintain transparency and elevate shared governance, the institution uses its strategic plan to allocate resources for priority activities in any given budget year. Additionally, because prioritizing these activities is an institutional-wide negotiation, there needs to be some buy-in and some patience with the budget process. When the budget cycle is directly linked to the planning process, it makes more effective use of institutional resources and allows the campus community to follow the process to understand how and why decisions are made.

Dual credit is competitive, and enrollment is growing, so institutions may need to adapt to significant revenue changes. One approach to accomplishing this is implementing cost containment actions coupled with a balanced scorecard that provides how expenditures are strategically determined. Some administrators view dual credit as a "detriment" to the community college systems because they do not always see a direct return for what it spent on implementing the program. However, dual credit is a benefit to student participants that the college serves in the learning communities.

Student Financial Support

The Texas state funding sources for tuition, transportation, required fees, and textbooks for courses are offered to students participating in the program. Demonstration of the Texas Success Initiative Assessment (TSIA) for college readiness is *not* required for dual credit students who enter a workforce education Level-1 Certificate or less. When it comes to Texas, state funding is available to support both public school districts and colleges. The college can only claim to fund students enrolled in either the core curriculum, career and technology (workforce), and foreign language courses.

Participating dual credit students and their parents realize significant savings on funding a 2-year or 4-year college education. The THECB has, with the exception of out-of-district fees, waived the tuition and fees for dual credit students, and textbooks are generally paid for as well. Workforce/CTE course credits are applied toward earning workforce-related certificates and the AAS degree, which is part of the Texas Workforce Education Course Manual (WECM).

Establish Tuition Scholarships

Yes, Money is Available! Community College belongs to the community, and we have a pathway that unites the mission, vision, and values of the college and the community. Offices such as Student Success & Completion will ensure that students are college-ready upon entry and career-ready when entering the workforce. Community colleges can make a transformational impact on those seeking to explore postsecondary educational options.

Again, a Case for Support and Letter of Appeal can help explore secure funds to support dual credit level-1 graduates to continue their studies and obtain the AAS degree. Seek support from the college foundation and ask them to establish a dual credit tuition scholarship to encourage student persistence, retention, and matriculation as full-time students after high school graduation.

SECTION 5: DISCUSSION & REFLECTION

Researcher's Final Comments

As a full-time faculty member at a large suburban Community College located in Houston, Texas, I have taught dual credit courses that focus on careers in the medical sector for the Business Technology department level-1 certificate. As an instructor, I have conducted trainings and meetings with advisors, counselors, and specialists on the college and high school side to develop and implement strategies to improve the persistence of dual credit students. However, despite our efforts, the dual credit persistence rate for the program was either low or met the minimum standard.

This Handbook was developed and designed to improve the persistence and matriculation of dual credit students that obtain the Business Technology - Certificate Level-1 (21 credits in 2 semesters). It was created as a guide to inform stakeholders about the Level-1 certificates and the community college's matriculation efforts and to assist with tasks related to strategic management, corporate governance, and not-for-profit management.

Throughout the process of developing this Handbook, I was able to gain new knowledge from scholars and practitioners, who are experts in the field of dual credit. One idea was linked to analyzing the existing partnerships formed with community colleges and monitoring the community college's impact on different underrepresented student populations. Anyone can utilize this process of aligning the balanced scorecard with the community college's strategic objectives, mission, vision, and values to build stronger relationships with stakeholders connected to their institution.

Because I learn by doing, I solicited information and feedback from many essential administrators at different community colleges. It was most insightful when I interviewed the chancellors, presidents, and vital top-level administrators and learned how the strategic planning process should work once operationalized. I also realized through our conversations that what was important to me is not necessarily important to others, thus forcing me to realize that compromise is a skill I must work on in my professional life.

At present, conducting a field test for the Handbook was needed and is instrumental to achieving long-term outcomes, an increase in college enrollment, and completion rates. With the completion of this Handbook, I hope our educational partners and dual credit advocates will benefit from the information provided in this Handbook on the Business Technology Certificate Level-1 program.


SECTION 6: APPENDICES


High Impact Practice Alert & Intervention Mia's Early Alert "Quarterly" System: 3-Step Process



Balanced Scorecard



Business Technology - Certificate Level 1 (21 Credits in 2 Semesters)
 The Business Technology curricula are designed to provide students an opportunity to develop the knowledge, skills, and abilities required for assuming **administrative assistant and other office positions** in today's competitive workplace.

CC Vision  Community College shapes the future for all students with innovative, affordable, timely, responsive, and continuously improving educational programs and services. Partnered with the communities we serve, we take a defining role in regional economic, workforce, and social development.

CC Mission  Community College is an open-admission, public institution of higher education offering a high-quality, affordable education for academic advancement, workforce training, career development, and lifelong learning to prepare individuals in our diverse communities for life and work in a global and technological society.

Strategic Themes
 Student and Stakeholder Budgetary and Financial Responsibility Internal Processes Growth and Development

Strategic Results
 Microsoft Office Specialist Certification MEDICAL Coding/Transcription Workforce Productive Citizen Matriculate AAS Degree

Exceeds Standard	Meets Standard	Partially-Meets Standard	Does NOT Meet Standard	No Standard
Student Success	↑ >Completers		↓ >Align Student Services & Advisors	↓ >Degree Persistence
		↓ <Access Codes 3rd Party Learning Platforms		
Student Success Hard Metrics	Objective: Completion Develop academic support system that focuses on dual credit students with CC area school district partners in early college programs. Metric: Create tutoring and supplemental instruction programs at early college schools with area school district partners.			
	Objective: Increase the number of stackable credentials offered through dual credit programs with CC area school district partners. Metric: Increase the number of stackable credential plans in each noted School Districts programs by 2% within the FY 20??-2?? with a target 6% increase by FY 20??-20??.			
Community Engagement	↓ Independent School District (ISD) Systems		↑ Computer Application or Keyboarding	↓ Volunteer/Apprenticeship
	↓ Municipal District (MD) Systems		↑ Microsoft Office Specialist Certification	↑ >Industry Certification
			↓ Medical Coding &/or Transcription	↓ >Industry Certification
Community Engagement Hard Metric	Objective: Increase the proportion of college-ready recent high school graduates enrolling by fostering community partnerships with area school districts through dual credit/articulation agreement programs and concurrent enrollment. Metric: Increase the number of Business Technology - Certificate Level-1 (21 Credits in 2 Semesters) in each noted School Districts by 2% within the FY 20??-20??.			
Facilities Alignment	↑ Electronic Device for Every Student	↑ Computer Laboratory Classroom	↑ Computer (Desktop/Laptop) Tablet, Smartphone	↑ Continuous Learning
			↓ 3rd Party Learning Platforms	
Financial Stewardship		↑ <Costs	↓ Textbook, Access Codes	
			↓ CPT, ICD-10, HCPCS	
Sustainability	↓ ISD & MD Systems			↑ Stackable Credential

CC Core Values Commitment to Collaborate, Devotion to Service, Empower to Trust, Passion to Learn, Drive to Innovate



Case for Support

Mia D. Taylor
Ferris State University
IDSL 860 Resource Development

**YOUR
LOGO
HERE**



Dear Friends of Community College,

Community College (CC) enrolled nearly 100,000 students in 20XX. Community colleges offer a transformational opportunity for those who seek to explore post-secondary educational endeavors.

Community College belongs to the community. We have a pathway that unites the mission, vision, and values of the college as well as the community. Through Success & Completion, CC will ensure that students are **READY**: college-ready upon entry into college and career-ready upon entry into the workforce.

This Case for Support seeks to explore a seamless matriculation for dual credit students who continue and obtain a degree. We are asking you to support our strategic initiative so that we can continue to increase the national, state, and local completion rates through a successfully guided pathway.

Sincerely,
Mia D. Taylor
CC Faculty Member

INSIDE THIS ISSUE

<i>Page</i>	<i>Topic</i>
1	Welcome
2	Heroic Purpose
3	Purpose & Cost
4	Uniquely Qualified
6	Why Now?
7	References

Higher education institutions have partnered with high schools to offer dual credit pathways. This partnership is the future to solving the issue of completers in higher education (Taylor, Borden, & Park, 2015).

Letter of Appeal



HEROIC PURPOSE

CCS' Business Technology Division has embarked upon a historical event – becoming the first workforce program in the institution's history to offer a Business Technology, Level-1 Certificate in **Medical Office Specialist**, to high school, dual credit students in the City School District. Following completion of the Certification, a student can either (1) continue their studies at CC Business Technology and work towards completing the corresponding Associate in Applied Science Degree or (2) choose to enter the workforce as a credentialed skilled worker or (3) *do both*. In other words, the student will earn a stackable credential that significantly and immediately improves the student's earning potential (Ganzglass, 2014).

CONTACT

Phone: **888-888-8888**

Email: first.last@cc.edu



<https://www.ccfoundation.org/donation>



THANK YOU

YOUR Community College Logo Here

WE NEED YOUR SUPPORT !

DEAR FRIENDS OF CC,

SUPPORT OUR RESULTS

LETTER OF APPEAL

This letter of appeal is to ask for funds to help the **seamless matriculation** of dual credit graduates continue their studies at CC and attain the **AAS degree in one year**.

WHY CC?

CC has an opportunity to support national and state expansion of dual credit enrollment initiatives by strengthening existing educational partnerships through your City School District systems. The CC system service areas include Alpha, Beta, Gamma, etc. The College can increase the number of dual credit students entering CC's Business Technology program, in particular, the medical component courses.

WHY NOW?

\$5,000 PER FULL-TIME ENROLLMENT FOR 1-ACADEMIC YEAR

The clock is ticking, and the semester is ending! Your support is needed now more than ever because we want these students to **complete** the AAS degree by this time next year. Your contribution will ensure a seamless matriculation from high school to college and provide a guided pathway to an additional semester.

Your donation of \$5,000 will provide full tuition and fees for one academic year.

WHY YOU?

With your support, we will break the cycle of how difficult it will be for these dual credit students to obtain the funds needed to continue their education. Moreover, how the Business Technology Division will help students through the process. When you support CC, you help build this community of acceptance and encouragement to grow. You help our students get an AAS degree in 1-year and become productive citizens in our community.

Also, your donation ensures the CC Business Technology Division provides free education to our dual credit students who have completed the Level 1 certificate and now only need 1-year to complete the AAS degree. For one student, \$5,000 will provide full tuition and fees for one academic year.

I ask you to please consider donating and Adopt a Student today!

Sincerely,

Mia D. Taylor

CC Faculty Member Who Cares!

WORTHY NOTES – INNOVATIVE IDEAS – BEST PRACTICES

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

INTRODUCTION

In Chapter Five, a discourse on the study results and conclusions is presented, along with answers to the three research questions. Moreover, the significance of the BT-DCW Handbook is discussed in detail, study limitations, and recommendations with practical advisement for community college practitioners and other personnel involved in the coordination and implementation of a secondary dual credit program for students enrolled in the college-level program.

RESEARCH QUESTIONS

The three research questions that guided the research study on dual credit enrollment and student persistence are answered below.

Research Question 1. How does the workforce Business Technology Certificate Program prepare dual credit students academically to persist in a 2-year Associate Degree Program or Transfer to a 4-year degree program?

The primary purpose of this research question was to explore if the DC Business Technology workforce program has a connection to student persistence and positive academic outcomes. In addressing sections 1 and 3, the field test evaluators, with expertise in DC instruction, advising, and student success (one associate vice chancellor [AVC]) asserted that the program strategically addressed college readiness. Students consistently receive group and individualized advisement and encouragement from instructors and counselors regarding

obtaining the nationally accredited Microsoft Office Specialist (MOS) Certification and completing the AAS degree.

Thus, a high percentage of dual credit students enrolled in the Computer Applications course have successfully passed the exam by the end of their first academic semester. By earning the MOS certification, they are more likely to have the computer training and skills needed to either complete a two-year associate degree after graduating high school, enter the workforce, or transfer to the university to earn a bachelor's degree (Zeng, 2005). The majority of the DC instructors asserted that the business technology department strives to ensure that collectively, each dual credit student persists and matriculates into the AAS degree program after high school completion to sustain their momentum and commitment. By doing so, students can save money on tuition costs and graduate earlier with an AAS degree because they earned the level-1 certificate, which is a stackable credential that may increase their income earning potential (Williams, 2010). To increase the student's persistence and retention in the workforce program, two AVCs stated that instructors are asked to strengthen the college's relationship with each student and show students that faculty members genuinely care about their individual success and degree attainment (Ozmun, 2013).

The field experts agreed that to strengthen the institution-student relationship, instructors must have a can-do attitude when delivering instruction and communicate this to students regularly. Next, we must communicate and respond immediately to student emails to help build trust and feel connected to the institution (Lincoln & Guba, 1985). Some of the leading educational researchers studying educational psychology and assessment (see Boretz, 2012; Faulconer et al., 2013; Zhang & Feng, 2018) assert that employing an Alert and Intervention (A&I) feedback system can help identify poor academic performance early in the program so

that interventions can be implemented before the student fails a course (Cuseo, 2011; Braxton, 2019). With access to student performance data, faculty can provide supportive services to academically at-risk or struggling dual credit students.

According to CCCSE (2012), 77% of the nation's community colleges have implemented an A&I feedback system, and 27% of the faculty regularly used the A&I system to monitor grade performance and reduce student attrition. Based on Achieving the Dream (2017). and the description of the Business Technology Department's proposed early alert plan presented in the BT-DCW Handbook, BT workforce instructors responded that the High Impact Practice (HIP) Alert & Intervention for the Early Alert *Quarterly* System might be effective in helping DC instructors gather relevant feedback earlier, to closely monitor a student's academic progress, course attendance, and semester grades (see Appendix A).

With degree persistence as the principal focus of the Office of College Readiness and Educational Development (i.e., which supports dual credit ISD partnerships, charter schools, and homeschooled students), the AVCs responded that the measure of college readiness is tied to the persistence of dual credit students who complete a Level-1 certificate before finishing high school. From a student support viewpoint, this means advisors and instructors must work collaboratively to align student services with the individualized needs of students that are on track to obtaining the AAS degree within two academic semesters.

Research Question 2. What individual experiences or institutional factors significantly influence the persistence and motivation of dual credit students and their ability to complete the Level-1 workforce degree program after receiving the high school diploma?

The most vital institutional factors that motivate dual credit students to persist are associated with the community college foundation, which offers a full scholarship to DC students

that matriculate to the AAS degree program after high school and quality relations they have with DC instructors and counselors. Drawing on Herzberg's groundbreaking two-factor motivational theory, when students are satisfied with the BT program, they may be motivated to complete the AAS degree, which is viewed by administrators as meeting the Texas 60x30TX initiatives.

Consistent with the mission of the community college system, research shows that individualized supportive services are critical to impacting student success. Each academic year, administrators are required to develop operational plans to present to the Board of Trustees to articulate the functional pathways toward achieving the institution's priorities with measurable outcomes. The annual institutional plan emphasizes the personnel, actions, timelines, and metrics needed to achieve the stated objectives and stakeholders that will work with the dual credit program. Each person mentioned in the plan to complete an assigned task must be committed to advancing students toward the Business Technology Level-1 Certificate and persisting beyond the high school degree toward the AAS degree or transfer to a 4-year institution.

To reduce the institutional challenges that lead to DC students stopping out prematurely (Hoyt & Winn, 2004), the field test instructors and counselors strongly espoused that the institution must work more closely with stakeholders in the community and high school to close the multiple exit points that students take to end or postpone their academic studies before completing the certificate program. These exit points, which is one of the problems that negatively impacted past DC students enrolled in the BT workforce program, are created by a lack of financial aid and scholarship assistance after graduating from high school and their inability to receive academic services such as individual tutoring and limited instructor support,

which can influence their personal decision to leave the college program before completion (Bers & Smith, 1991; Verschelden, 2017).

Research Question 3. What role do dual credit faculty and college counselors have in strategically helping dual credit students remain motivated to complete the Level-1 certificate program before graduating high school successfully?

In looking at sections 2, 3, and 4, the AVC for college readiness and DC instructors felt that the Business Technology Department offers individualized supportive services to DC students to help motivate them to persist toward completing the level-1 certificate during or after high school and earn the community college AAS degree or additional transfer college credits. Based on the evaluative feedback from the field test experts, they indicated that the BT workforce program has a unique position, meaning as administrators and educators, they are able to design and integrate career counseling services into the dual credit programming and partner with college counselors to create a mandatory guidance program. This is needed, especially after the COVID-19 Pandemic, which shut down all of the K-12 schools and colleges.

Additionally, for accountability reasons, the AVCs suggested that college counselors discuss and report potential job placement and volunteer training opportunities with DC students enrolled in the BT program. Furthermore, counselors and instructors should also inform students on how the BT certification can prepare them for different careers in healthcare and advance their knowledge, skillset, and professional growth to effectively compete for employment in the medical field. To help dual credit students remain motivated to persist on the BT pathway and complete the Level-1 certificate, instructors must continue to encourage DC students to participate in BT job training opportunities in the healthcare domain during the summer months. Therefore, DC students, instructors, counselors, and administrators must work collaboratively

with a network of hospital systems and medical clinics to establish paid job training opportunities for those students that remain in the DC program and pursue the AAS degree after high school graduation.

THE SIGNIFICANCE OF THE BT-DCW HANDBOOK

The objective of the present study was to examine student retention among DC high school students enrolled in a community college workforce program and create a practical administrative handbook for administrators, faculty members, high school stakeholders, and counselors. The BT Dual Credit & Workforce handbook was developed to provide expert insight and guidance on how to improve the retention of DC students now and in the future. The seven sections reviewed by the field test experts in the BT-DCW handbook include general information on the (1) DC concept and college program, (2) student persistence, (3) retention objectives, (4) institutional resources, (5) program strategies, (6) a comprehensive discussion from the researcher, and (7) appendices connected to the expert feedback received for the field test process.

Based on the feedback from the experts pertaining to the usefulness of the handbook and proposed strategies, the overall evaluative response was positive, and the experts felt that the handbook addressed some of the current challenges and weaknesses of the program. For example, DC students not having access to their textbooks on the first day of class and students not understanding the benefits of the BT dual credit program and what careers to pursue when they complete the stackable certification are common problems that the handbook addressed. From a general standpoint, the feedback shared by the experts resulted in improvement in the overall quality of the published information and the outcome of the product. Adding to the importance of the handbook, the researcher made the content of the handbook accessible to blind

faculty members and advising personnel working with sight-impaired enrolled DC students. Therefore, the pictures and images displayed in the BT-DCW Handbook include alternative (alt) text, which refers to invisible descriptions of images read aloud to blind professionals, who use a screen reader to read textbooks (Rabidoux & Rottmann, 2017).

LIMITATIONS, ASSUMPTIONS, AND RECOMMENDATIONS

Research limitations are identified as aspects of a study that are out of the control of the researcher. For the current study, there are several limitations anticipated that may restrict the generalizability of the study to other dual credit programs located in different states and throughout the Texas region.

Limitations

With any investigative study and methodological approach, there are limitations typically associated with the chosen research design. There were three limitations for the current dissertation research project, which did not inhibit the development of the instructional BT-DCW Handbook on the dual credit workforce program and student retention policies. The *first limitation* was linked to the specific focus on one postsecondary option, which is a high school dual credit Level-1 Business Technology workforce certificate program at a community college in Texas. Thus, other postsecondary options such as the Advanced Placement (AP) program or the International Baccalaureate program (IB) were not investigated for their impact on increasing access to higher education opportunities for diverse student populations in high school. As a result, the generalizability of the findings and final product derived from the study may be restricted to one particular program type, institutional structure, and region.

The *second limitation* was that quantitative and qualitative data was not collected, and demographic profile related to the DC students and their coursework or completion rate was not

included in the study since this was a product dissertation. Because this study did not collect qualitative or quantitative statistical data (demographic information, statistical data on coursework, and program completion), it does not allow readers to draw causal-comparative conclusions from empirical findings on the relationship between student demographic profile factors and course or grade performance. Neither did it provide the opportunity to evaluate textual feedback to test how the program structure or supportive resources *may have or may not have* positively affected the academic persistence and success of the dual credit students enrolled in the community college workforce certificate program. As a result, this removed the opportunity for future researchers to demonstrate or confirm the programmatic impact of the DC program and performance on high school GPAs and participation in a college-level program.

The *third limitation* pertains to the categorical sections and program strategies presented in the handbook, which are considered necessary by just one particular college and program type. As a result, the seven sections may not be viewed as relevant to colleges or universities with different administrative operations or DC program structures. Thus, future researchers studying the impact of DC should select a different research design or method to broaden the scope of the investigation. As a result, utilizing a quantitative or qualitative methodology to gather survey or narrative data from DC personnel or students may expand or add new information to the research topic.

Assumptions

In qualitative or quantitative research paradigms, the general assumptions asserted by a researcher are defined by Patton (2015) as methodological beliefs that are not initially verified by any given evidence. For the current research study, the first assumption noted by the researcher is that the feedback shared by the volunteer FTEs about the dual credit instructional BT-DCW

Handbook is honest and forthcoming in their evaluation. Also, their expertise concerning programmatic practices and recommended strategies to increase the retention and persistence of dual credit students is assumed to be relevant in discussing the issues and concerns about the program and retaining students. The second assumption is that faculty members and college counselors are presumed to have professional experience and expertise on dual credit and will contribute important feedback for the handbook on the programmatic planning of the coursework, increasing enrollment, and retention.

RECOMMENDATIONS FOR PRACTICE

The key to helping workforce students achieve individual success, which is fundamental to the college's institutional mission, is to improve their self-confidence, job opportunities, and career success. Consistent with the research literature on student retention, it is recommended that students receive individual and collective sources of support, such as regular academic advisement at a convenient time after high school hours and access to quality resources like online and face-to-face tutoring (Grover, 2009; Karp, O'Gara, & Hughes, 2008; Mallinckrodt, 1988). Career counseling is also crucial to helping students experience positive academic outcomes in the DC workforce program. Counselors and advisors play a critical role in providing individualized support to help students persist; thus, it is recommended that DC students receive career planning and help with decision-making to raise their motivation, marketable skills, and personal development (Donaldson, McKinney, Lee, & Pino, 2016; Pike & Ryan, 2004; Williamson, Goosen & Gonzalez 2014).

Having scheduled meetings with an academic advisor is a substantial factor in helping students achieve success in the college classroom (Astin, 1984; Milem & Berger, 1997; Tinto, 1997; Valente, 2011). Another crucial source of support for DC students is engaging in degree

planning before the start of the semester. Thus, it is recommended that counselors (a) engage and involve students individually or collectively in reviewing the BT degree plan course-by-course before the first day of class, (b) help distribute student textbooks on time for the courses so DC students can interact with counselors, and (c) monitor students regularly, so they do not lag behind in their studies.

As for instructors, it is recommended that they (a) set up the various digital learning platforms before the first day of class, (b) secure keys to the computer labs and classrooms at the high school campuses, and (c) provide students with the access codes (passwords) for online interactive assignments, learning, and supplemental course text before the official first day of instruction. By doing so, if there are any problems, they can be resolved before the scheduled program start date.

CONCLUSION OF THE STUDY

The focus of this product dissertation study was to examine dual credit students' persistence and retention in a Level-1 workforce DC program at an urban Community College System in Texas. The idea for the product dissertation derived from the literature review and Herzberg's two-factor motivational theory, which influenced the development of the Business Technology Dual Credit Workforce Handbook. As a resource tool, the handbook was designed for new and experienced instructors, advisors, and administrators to help increase their impact and knowledge on the persistence and retention of dual credit high school students enrolled in the level-1 certificate DC program. The BT-DCW Handbook presents practical information and strategies, based on the feedback gained from FTEs, that contributed useful information on DC program planning, individualizing student support services, career counseling, MOS testing

requirements, and how to help students effectively transition into their college role as high school students.

Dual credit faculty members, college advisors, and administrators were also beneficial in developing the proposed program strategies. In their expert role in reviewing the BT-DCW Handbook sections, a rubric was created by the researcher and utilized by the team of evaluators to help them assess the usefulness of the sectional content, programs interventions, quality of the product, and making recommendations to improve the content of the handbook (see Appendix F). Although this study did not collect or analyze raw data to answer the three research questions, the expert feedback on DC student persistence and retention was consistent with the DC literature and led to the conclusion that quality instruction and advisor relations are critical to building trust among DC students, which in turn can influence their retention and motivation to persist in a higher education program (Astin, 1984; Bers, & Smith, 1991; Lincoln & Guba, 1985; Milem & Berger, 1997; Tinto, 1993).

REFERENCES

- Achieving the Dream. (2017). *Early alert – Academic warning system*. Interventions Showcase. <https://www.achievingthedream.org/intervention/16487/early-alert-academic-warning-system>
- Amey, M. (2000). *Breaking tradition: New community college leadership programs meet 21st century needs*. American Association of Community Colleges. <https://eric.ed.gov/?id=ED499822>
- Andrews, H. A. (2004). Dual credit research outcomes for students. *Community College Journal of Research and Practice*, 28(5), 415-422. <https://doi.org/10.1080/1066892049044445>
- Appleby, J., Ashton, K., Ferrell, J., Gesing, E., Jackson, S., Lindner, T., Mata, S.G., Shelnett, A., & Wu, Y. (2011). *A study of dual credit access and effectiveness in the state of Texas*. <https://core.ac.uk/download/pdf/79648002.pdf>
- Arnold, K. D., Lu, E. C., & Armstrong, K. J. (2012). The ecology of college readiness: ASHE *Higher Education Report*, 38, (5), 1-138. <https://doi.org/10.1002/aehe.20005>
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25(4), 297-308. http://chawkinson.pbworks.com/w/file/fetch/122997693/Student_Involvement_A_Development_Theory_for_Highe.pdf
- Barnes, W., Slate, J. R., & Rojas-LeBouef, A. (2010). College-readiness and academic preparedness: The same concepts? *Current Issues in Education*, 13(4). https://www.researchgate.net/publication/277213325_College-Readiness_and_Academic_Preparedness_The_Same_Concepts
- Bailey, T. R., & Belfield, C. (2017). Stackable credentials: Awards for the future? <https://academiccommons.columbia.edu/doi/10.7916/D8XW4TB9/download>
- Bailey, T. R., Hughes, K. L., & Karp, M. J. M. (2003). Dual enrollment programs: Easing transitions from high school to college. <https://academiccommons.columbia.edu/doi/10.7916/D85M6F1W/download>
- Bannon, J. J. (1999). *911 management: A comprehensive guide for leisure service managers: General management, executive development, human resources*. Sagamore Publishing.
- Barrow, L., Brock, T., & Rouse, C. E. (2013, Spring). Postsecondary education in the United States: Introducing the issue. *The Future of Children*, 3-16. <https://doi.org/10.1353/foc.2013.0006>

- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12(2), 155-187. <https://files.eric.ed.gov/fulltext/ED174873.pdf>
- Berry, L. (2003). Bridging the gap: A community college and area high schools collaborate to improve student success in college. *Community College Journal of Research & Practice*, 27(5), 393-407. <https://doi.org/10.1080/713838157>
- Bers, T. H., & Smith, K. E. (1991). Persistence of community college students: The influence of student intent and academic and social integration. *Research in Higher Education*, 32(5), 539-556. <https://doi.org/10.1007/s10734-005-2496-y>
- Biden, J. (2010, April 14th). Community colleges: Our work has just begun. *Chronicle of Higher Education*. <https://www.chronicle.com/article/community-colleges-our-work-has-just-begun/>
- Boretz, E. (2012). Midsemester academic interventions in a student-centered research university. *Journal of College Reading and Learning*, 42(2), 90-108. <https://doi.org/10.1080/10790195.2012.10850356>
- Brandon, K. (2009). *Investing in education: The American graduate initiative*. The White House. <https://obamawhitehouse.archives.gov/blog/2009/07/14/investing-education-american-graduation-initiative>
- Braxton, J. M. (2019). Leaving college: Rethinking the causes and cures of student attrition by Vincent Tinto. *Journal of College Student Development*, 60(1), 129-134.
- Braxton, J. M., Duster, M., & Pascarella, E. T. (1988). Causal modeling and path analysis: An introduction and an illustration in student attrition research. *Journal of College Student Development*, 29(3), 263-272.
- Byrne, M. (2001). Sampling for qualitative research. *AORN Journal*, 73(2), 494-494.
- Carnevale, A.P., Smith, N., & Strohl, J. (2013). *Recovery: Job growth and education requirements through 2020*. Georgetown University Center on Education and the Workforce.
- Cassidy, L., Keating, K., & Young, V. (2010). *Dual enrollment: Lessons learned on school-level implementation*. SRI International.
- Caverly, S., Stoker, G., Lee, D. H., & Fleming, G. (2019). Literacy First K–1 Report. *American Institute for Research*. https://americorps.gov/sites/default/files/evidenceexchange/UTAustinCharles.20ES220684.Report1-Revised_508_1.pdf
- Center for Community College Student Engagement (CCSE). (2012). *A matter of degrees: Promising practices for community college student success (A first look)*. The University of Texas at Austin, Community College Leadership Program. *Colleges*, p. 113. Jossey-Bass Publishing.

- Cohen, A. M., Brawer, F. B., & Kisker, C. B. (2014). *The American Community College*, (6th ed.). Jossey-Bass.
- Community College Research Center (CCRC). (2012). *What we know about dual enrollment*. Columbia University, Teachers College. Community College Research Center. <http://ccrc.tc.columbia.edu/publications/what-we-know-about-dual-enrollment.html>
- Conley, D. T. (2012). *A Complete Definition of College and Career Readiness*. Educational Policy Improvement Center (NJ1).
- Coulehan, M. B., & Well, J. F. (2006). *Guidelines for responsible data management in scientific research*. Clinical Tools, Incorporated. <https://ori.hhs.gov/images/ddblock/data.pdf>
- Creswell J. & Poth C. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
- Creswell, J. W. (2009). Editorial: Mapping the field of mixed methods research. *Journal of Mixed Methods Research*, 3(2), 95-108. <https://doi.org/10.1177/1558689808330883>
- Creswell, J. W. (2013). *Educational research: Planning, conducting, and evaluating*. W. Ross MacDonald School Resource Services Library.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approach*. Sage Publications. <http://www.drbramedkarcollege.ac.in/sites/default/files/research-design-ceil.pdf>
- Cuseo, J., & Farnum, T. (2011). *Seven myths about student retention*. Teresa Farnum and Associates, Inc.
- Deci, E. L., & Ryan, R. M. (2000). The " what" and " why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268. https://selfdeterminationtheory.org/SDT/documents/2000_DeciRyan_PIWhatWhy.pdf
- Donaldson, P., McKinney, L., Lee, M., & Pino, D. (2016). First-year community college students' perceptions of and attitudes toward intrusive academic advising. *NACADA Journal*, 36(1), 30-42. <https://meridian.allenpress.com/nacada-journal/article/36/1/30/102734/First-Year-Community-College-Students-Perceptions>
- Duquia, R. P., Bastos, J. L., Bonamigo, R. R., González-Chica, D. A., & Martínez-Mesa, J. (2014). Presenting data in tables and charts. *Anais brasileiros de dermatologia*, 89(2), 280-285. <https://www.scielo.br/j/abd/a/PrhTXWWk9mGCdkvznypTrdP/?lang=en>
- Faulconer, J., Geissler, J., Majewski, D., & Trifilo, J. (2013, Winter). Adoption of an Early-Alert System to Support University Student Success. *Delta Kappa Gamma Bulletin*, 80(2), 45-48. <https://www.proquest.com/scholarly-journals/adoption-early-alert-system-support-university/docview/1490972526/se-2>

- Fincher-Ford, M. (1996). *High school students earning college credit: A guide to creating dual-credit programs*. Corwin Press, Inc.
- Ganzert, B. (2014). Dual enrollment credit and college readiness. *Community College Journal of Research and Practice*, 38(9), 783-793.
- Ganzglass, E. (2014). *Scaling stackable credentials: Implications for implementation and policy*. Center for Postsecondary and Economic Success.
- Glesne, C. (2015). *Becoming qualitative researchers* (5th ed.). Pearson.
- Goldman, C. A., Butterfield, L., Lavery, D., Miller, T., Daugherty, L., Beleche, T., & Han, B. (2015). *Using workforce information for degree program planning in Texas*. Rand Corporation.
- Gough, D., Oliver, S., & Thomas, J. (2017). *An introduction to systematic reviews*. Sage Publication, Ltd.
- Grover, S. (2009). *Getting the green: Fundraising campaigns for community colleges*. Community College Press.
- Grubb, J. M., Scott, P. H., & Good, D. W. (2017). The answer is yes: Dual enrollment benefits students at the community college. *Community College Review*, 45(2), 79-98.
- Harnish, D., & Lynch, R. L. (2005). Secondary to postsecondary technical education transitions: An exploratory study of dual enrollment in Georgia. *Career and Technical Education Research*, 30(3), 169–188.
- Hatch, J. A. (2002). *Doing qualitative research in education settings*. Suny Press.
- Hermannsson, K. (2016) Economic impact of education: Evidence and relevance. In D. Wyse, E. Hayward, & J. Pandya (Eds.), *The Sage Handbook of curriculum, pedagogy and assessment* (Vol. 2, pp. 873–893). Sage.
- Hertzberg, F. (1959). *The motivation to work*. John Wiley & Sons.
- Hertzberg, F. (1964). *Work and the nature of man*. The World Publishing Company.
- Hinojosa, M., & Salinas, M. (2012). *A review of prior college hours earned by entering freshmen at UTPA*. University of Texas-Pan American.
- Hoffman, N., Vargas, J., & Santos, J. (2009). New directions for dual enrollment: Creating stronger pathways from high school through college. *New Directions for Community Colleges*, (145), 43-58.
- Hope, J. (2017). Provide guided pathways to give students a map to success. *Enrollment Management Report*, 20 (11), 1-5.

- Houser, L. C. S., & An, S. (2015). Factors affecting minority students' college readiness in mathematics. *Urban Education, 50*(8), 938-960.
- Hoyt, J. E., & Winn, B. A. (2004). Understanding retention and college student bodies: Differences between drop-outs, stop-outs, opt-outs, and transfer-outs. *NASPA Journal, 41*(3), 395-417.
- Hu, X., & Bowman, G. (2016). Leading Change: A case study of Alamo Academies—An industry-driven workforce partnership program. *Community College Journal of Research and Practice, 40*(7), 632-639.
- Hufton, N. R., Elliot, J. G. and Illushin, L. (2002). Educational motivation and engagement: Qualitative accounts from three countries. *British Educational Research Journal, 28*: 265–289. [doi:10.1080/01411920120122185](https://doi.org/10.1080/01411920120122185)
- Hunt, E.L. (2007). Dual funding for dual enrollment: An inducement or an impediment? *Community College Journal of Research and Practice, 3*(11), 863-88. [doi:10.1080/10668920600857255](https://doi.org/10.1080/10668920600857255)
- Iloh, C., & Toldson, I. A. (2013). Black students in 21st century higher education: A closer look at for-profit and community colleges (Editor's Commentary). *The Journal of Negro Education, 82*(3), 205-212.
- Jeffcoat, K., Weisblat, I. A., Bresciani, M. J., Sly, R. W., Tucker, M., Herrin, B., & Cao, L. (2014). Exploring alignment of community college students for preparedness and achievement of basic skills. *Community College Journal of Research and Practice, 38*(1), 5-23.
- Johnson, D. 2005. Assessment matters: Some issues concerning the supervision and assessment of work-based doctorates. *Innovations in Education and Teaching International, 42*(1), 87–92.
- Jones, S. J. (2014). Student participation in dual enrollment and college success. *Community College Journal of Research and Practice, 38*(1), 24-37.
- Jones, S. J. (2018). Supporting the mission through dual enrollment. Forces Shaping Community College Missions. *New Directions for Community Colleges, (180)*, 75.
- Karp, M. J. M., Bailey, T. R., Hughes, K. L., & Fermin, B. J. (2004). *State dual enrollment policies: Addressing access and quality*. Community College Research Center, Teachers College, Columbia University
- Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., & Bailey, T. R. (2007). The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states." *Community College Research Center, Columbia University*.

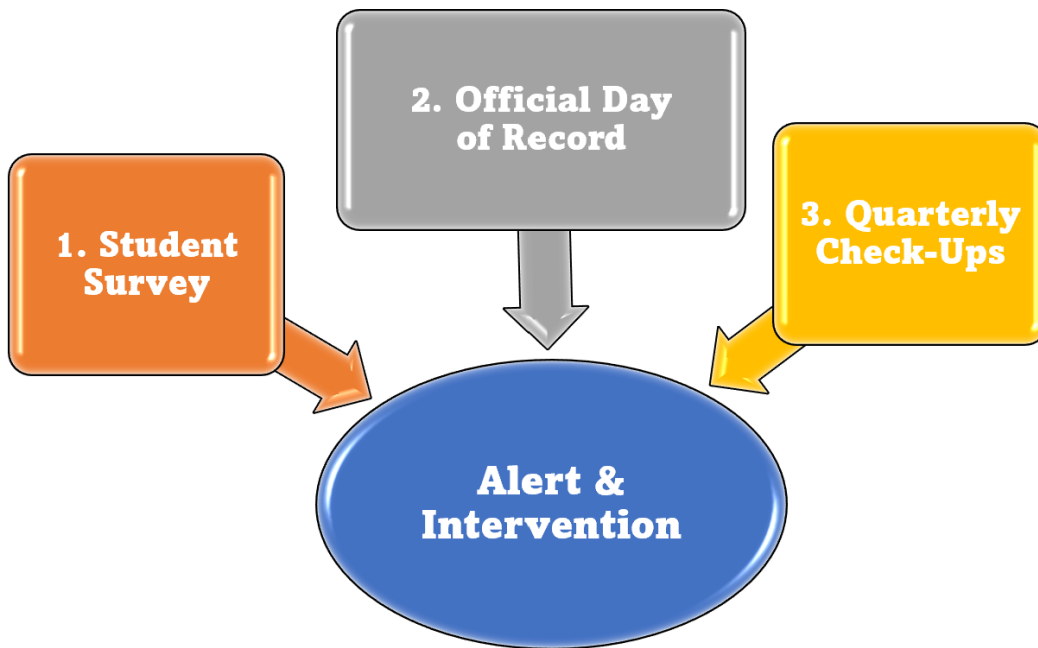
- Karp, M. M., O'Gara, L., & Hughes, K. L. (2008). Do support services at community colleges encourage success or reproduce disadvantage? An exploratory study of students in two community colleges. CCRC Working Paper No. 10. *Community College Research Center, Columbia University*.
- Kotamraju, P., & Blackman, O. (2011). Meeting the 2020 American Graduation Initiative (AGI) goal of increasing postsecondary graduation rates and completions: A macro perspective of community college student educational attainment. *Community College Journal of Research and Practice, 35*(3), 202-219.
- Kretchmar, J., & Farmer, S. (2013). How much is enough? Rethinking the role of high school courses in college admission. *Journal of College Admission, 220*, 28-33.
- Lincoln, Y. S., & Guba, E. G. (1985). Establishing trustworthiness. *Naturalistic Inquiry, 289*, 331.
- Mallinckrodt, B. (1988). Student retention, social support, and dropout intention: Comparison of Black and White students. *Journal of College Student Development, 29*(1), 60-64.
- Marken, S., Gray, L., & Lewis, L. (2013). *Dual enrollment programs and courses for high school students at postsecondary institutions: 2010-11 (NCES 2013-002)*. U. S. Department of Education, National Center for Education Statistics.
- Marshall, R. P., & Andrews, H. A. (2002). Dual-credit outcomes: A second visit. *Community College Journal of Research and Practice, 26*(3), 237-242.
- Maxwell, T. W., & Kupczyk-Romanczuk, G. (2009). Producing the professional doctorate: The portfolio as a legitimate alternative to the dissertation. *Innovations in Education and Teaching International, 46*(2), 135-145.
- McCarthy, C. R. (1999). Dual-enrollment programs: Legislation helps high school students enroll in college courses. *Journal of Secondary Gifted Education, 11*(1), 24-32.
- McDonald, D., & Farrell, T. (2012). Out of the mouths of babes: Early college high school students' transformational learning experiences. *Journal of Advanced Academics, 23*(3), 217-248.
- McKeown-Moak, M. (2009). Higher Learning, Greater Good: The Private and Social Benefits of Higher Education, 2009. *Journal of Education Finance, 35*(2), 194-198.
- McMahon, W. W. (2009). *Higher learning, greater good: The private and social benefits of higher education*. Johns Hopkins Press.
- McNair, D. E., Duree, C. A., & Ebbers, L. (2011). If I knew then what I know now: Using the leadership competencies developed by the American Association of Community Colleges to prepare community college presidents. *Community College Review, 39*(1), 3-25.

- Milem, J. F., & Berger, J. B. (1997). A modified model of college student persistence: Exploring the relationship between Astin's theory of involvement and Tinto's theory of student departure. *Journal of College Student Development*, 38(4), 387.
- Moore, G. W., Slate, J. R., Edmonson, S. L., Combs, J. P., Bustamante, R., & Onwuegbuzie, A. J. (2010). High school students and their lack of preparedness for college: A statewide study. *Education and Urban Society*, 42(7), 817-838.
- Mulligan, S. C., & Hennessy, J. J. (1990). Persistence in a community college: Testing attrition models. *Annual meeting of the American Educational Research Association*. Boston, MA.
- National Alliance of Concurrent Enrollment Partnerships (2018). Fast facts about dual and concurrent enrollment. *Research Policy*. <http://www.nacep.org/research-policy/fast-facts/>
- National Center for Education Statistics (2017, October 25). America's public schools. Common Core of Data. https://nces.ed.gov/ccd/tables/ACGR_RE_and_characteristics_2015-16.asp
- Nygaard, C., Brand, S., Bartholomew, P., & Millard, L. (2013). *Student engagement: Identity, motivation, and community*. Libri Publishing.
- Oxford Analytica. (2021). US community colleges see enrollment drop this year. *Emerald Expert Briefings*, (oxan-db). <https://doi.org/10.1108/OXAN-DB262847>
- Ozmun, C. D. (2013). College and academic self-efficacy as antecedents for high school dual-credit enrollment. *The Community College Enterprise*, 19(1), 61.
- Pascarella, E. T., Duby, P. B., & Iverson, B. K. (1983). A text and reconceptualization of a theoretical model of college withdrawal in a commuter institution setting. *Sociology of Education*, 88-100.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Sage Publications, Inc.
- Pedhazur, E. J., & Kerlinger, F. N. (1982). *Path analysis. Multiple regression in behavioral research*, pp. 577-635.
- Pedhazur, E. J., & Kerlinger, F. N. (1982). *Multiple regression in behavioral research*. Holt, Rinehart, and Winston.
- Perkins Collaborative Resource Network (PCRN) (n.d.). *Mapping upwards: Stackable credentials that lead to careers*. <https://cte.ed.gov/initiatives/community-college-stackable-credentials>
- Pescitelli, D. (1996). An analysis of carl rogers' theory of personality. http://pandc.ca/?cat=carl_rogers&page=rogerian_theory

- Pike, S., & Ryan, C. (2004). Destination positioning analysis through a comparison of cognitive, affective, and conative perceptions. *Journal of Travel Research*, 42(4), 333-342.
- Rabidoux, S., & Rottmann, A. (2017). *5 tips for ADA-compliant inclusive design*. <https://www.insidehighered.com/digital-learning/views/2017/05/03/tips-designing-ADA-compliant-online-courses>.
- Robertson, P. F., Chapman, B. G., & Gaskin, F. (2001). *Systems for offering concurrent enrollment at high school and community colleges*. Jossey-Bass. <https://files.eric.ed.gov/fulltext/ED456888.pdf>
- Rubin, H. J. & Rubin, I. S. (1995). *Qualitative inquiry: The art of hearing data*. Sage Publications.
- Russon, G. (2017, March 24). *Education secretary betsy DeVos tours the valencia campus in osceola*. *Orlando Sentinel*. <https://www.orlandosentinel.com/features/education/school-zone/os-betsy-devos-valencia-campus-20170322-story.html>
- Taylor, J. L., Borden, V. H., & Park, E. (2015). State dual credit policy: A national perspective. *New Directions for Community Colleges*, 169(2015), 9-19.
- Terranova, S. (2019). *A dual enrollment partnership between community colleges and high schools: A case study*. Liberty University.
- Texas Association of Community Colleges. (2018). Dual credit works for Texas. https://tacc.org/sites/default/files/documents/2018-11/dual_credit_2-pager_final_11.19.2018.pdf
- Texas Education Association (TEA), (2004). Texas public schools timeline of historical events. <https://tea.texas.gov/WorkArea/DownloadAsset.aspx?id=51539628023>
- Texas Higher Education Coordinating Board (THECB). (2018). *60x30TX Texas higher education coordinating board*. THECB. <http://www.thecb.state.tx.us/>
- Texas Workforce Commission (TWC), (2018). Community and workforce partners. <https://twc.texas.gov/partners>
- Tinto, V. (1993). Building community. *Liberal Education*, 79(4), 16-21.
- Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *The Journal of Higher Education*, 68(6), 599-623.
- United States. Executive Office of the President. (2014). Increasing college opportunity for low-income students: promising models and a call to action. https://permanent.access.gpo.gov/gpo45359/white_house_report_on_increasing_college_opportunity_for_low-income_students_1-16-2014_final.pdf.

- U.S. Census Bureau. (2017). An American community survey. *2017 American Community Survey 1-year estimates*. <https://www.census.gov/acs/www/data/data-tables-and-tools/american-factfinder/>
- Valente, M. M. (2011). *Enterprise resource planning systems: Assessment of risk factors by California community college leaders*. University of California.
- Verschelden, C. (2017). *Bandwidth recovery: Helping students reclaim cognitive resources lost to poverty, racism, and social marginalization*. Stylus Publishing, LLC.
- Webb, M. (1989). A theoretical model of community college student degree persistence. *Community College Review* 16(4). 42–49.
- Williams, J. (2010). Early college academic performance: Studying the effects of earning college credits from advanced placement and dual enrollment. *Dissertation Abstracts International: Section A. Humanities and Social Sciences*, UMI No. 3390529.
- Williamson, L.V., Goosen, R. A., & Gonzalez Jr, G. F. (2014). Faculty advising to support student learning. *Journal of Developmental Education*, 20-24.
- Yin, R. K. (2018). *Case study research and application: Design and methods* (6th ed.). Sage Publications.
- Zeng, F. (2005, June). An Approach to Addressing the Needs for Microsoft Office Specialist Training in Technology Programs. In *2005 Annual Conference* (pp. 10-152).
- Zhang, X., & Feng, J. (2018). An Early-Warning Method on e-Learning. *e-Learning, e-Education, and Online Training*, p. 62.

**APPENDIX A: MIA'S HIGH IMPACT PRACTICE (HIP) ALERT &
INTERVENTION EARLY ALERT 3-STEP PROCESS**



APPENDIX B: BALANCED SCORECARD FOR MATRICULATION

Business Technology - Certificate Level 1 (21 Credits in 2 Semesters)

The Business Technology curricula are designed to provide students an opportunity to develop the knowledge, skills, and abilities required for assuming **administrative assistant and other office positions** in today's competitive workplace.

CC Vision



Community College shapes the future for all students with innovative, affordable, timely, responsive, and continuously improving educational programs and services. Partnered with the communities we serve, we take a defining role in regional economic, workforce, and social development.

CC Mission



Community College is an open-admission, public institution of higher education offering a high-quality, affordable education for academic advancement, workforce training, career development, and lifelong learning to prepare individuals in our diverse communities for life and work in a global and technological society.

Strategic Themes

Student and Stakeholder

Budgetary and Financial Responsibility

Internal Processes

Growth and Development

Strategic Results

Microsoft Office Specialist Certification

MEDICAL Coding/Transcription

Workforce Productive Citizen

Matriculate AAS Degree

	Exceeds Standard	Meets Standard	Partially-Meets Standard	Does NOT Meet Standard	No Standard
HCC Strategic Priorities	Student Success	↑ >Completers		↓ >Align Student Services & Advisors	↓ >Degree Persistence
			↓ <Access Codes 3rd Party Learning Platforms		
	Student Success Hard Metrics	<p>Objective: Completion Develop academic support system that focuses on dual credit students with CC area school district partners in early college programs. Metric: Create tutoring and supplemental instruction programs at early college schools with area school district partners.</p> <p>Objective: Increase the number of stackable credentials offered through dual credit programs with CC area school district partners. Metric: Increase the number of stackable credential plans in each noted School Districts programs by 2% within the FY 20??-2?? with a target 6% increase by FY 20??-20??.</p>			
	Community Engagement	↓ Independent School District (ISD) Systems ↓ Municipal District (MD) Systems		↑ Computer Application or Keyboarding ↑ Microsoft Office Specialist Certification	↓ Volunteer/Apprenticeship ↑ >Industry Certification
				↓ Medical Coding &/or Transcription	↓ >Industry Certification
	Community Engagement Hard Metric	<p>Objective: Increase the proportion of college-ready recent high school graduates enrolling by fostering community partnerships with area school districts through dual credit/articulation agreement programs and concurrent enrollment. Metric: Increase the number of Business Technology - Certificate Level-1 (21 Credits in 2 Semesters) in each noted School Districts by 2% within the FY 20??-20??.</p>			
	Facilities Alignment	↑ Electronic Device for Every Student	↑ Computer Laboratory Classroom	↑ Computer (Desktop/Laptop) Tablet, Smartphone ↓ 3rd Party Learning Platforms	↑ Continuous Learning
	Financial Stewardship		↑ <Costs	↓ Textbook, Access Codes ↓ CPT, ICD-10, HCPCS	
Sustainability	↓ ISD & MD Systems			↑ Stackable Credential	

CC Core Values

Commitment to Collaborate, Devotion to Service, Empower to Trust, Passion to Learn, Drive to Innovate

APPENDIX C: CASE FOR STUDENT SUPPORT



Case for Support

Mia D. Taylor
Ferris State University
IDSL 860 Resource Development

YOUR LOGO HERE



Dear Friends of Community College,

Community College (CC) enrolled nearly 100,000 students in 20XX. Community colleges offer a transformational opportunity for those who seek to explore post-secondary educational endeavors.

Community College belongs to the community. We have a pathway that unites the mission, vision, and values of the college as well as the community. Through Success & Completion, CC will ensure that students are **READY**: college-ready upon entry into college and career-ready upon entry into the workforce.

This Case for Support seeks to explore a seamless matriculation for dual credit students who continue and obtain a degree. We are asking you to support our strategic initiative so that we can continue to increase the national, state, and local completion rates through a successfully guided pathway.

Sincerely,
Mia D. Taylor
CC Faculty Member

INSIDE THIS ISSUE

<i>Page</i>	<i>Topic</i>
1	Welcome
2	Heroic Purpose
3	Purpose & Cost
4	Uniquely Qualified
6	Why Now?
7	References

Higher education institutions have partnered with high schools to offer dual credit pathways. This partnership is the future to solving the issue of completers in higher education (Taylor, Borden, & Park, 2015).

APPENDIX D: LETTER OF APPEAL FOR SCHOLARSHIP FUNDING



HEROIC PURPOSE

CCS' Business Technology Division has embarked upon a historical event – becoming the first workforce program in the institution's history to offer a Business Technology, Level-1 Certificate in **Medical Office Specialist**, to high school, dual credit students in the City School District. Following completion of the Certification, a student can either (1) continue their studies at CC Business Technology and work towards completing the corresponding Associate in Applied Science Degree or (2) choose to enter the workforce as a credentialed skilled worker or (3) *do both*. In other words, the student will earn a stackable credential that significantly and immediately improves the student's earning potential (Ganzglass, 2014).

CONTACT

Phone: ###-###-####

Email: first.last@cc.edu



<https://www.ccfoundation.org/donation>



THANK YOU

YOUR Community College Logo Here

WE NEED YOUR SUPPORT !

DEAR FRIENDS OF CC,

SUPPORT OUR RESULTS

LETTER OF APPEAL

This letter of appeal is to ask for funds to help the **seamless matriculation** of dual credit graduates continue their studies at CC and attain the **AAS degree in one year**.

WHY CC?

CC has an opportunity to support national and state expansion of dual credit enrollment initiatives by strengthening existing educational partnerships through your City School District systems. The CC system service areas include Alpha, Beta, Gamma, etc. The College can increase the number of dual credit students entering CC's Business Technology program, in particular, the medical component courses.

WHY NOW?

\$5,000 PER FULL-TIME ENROLLMENT FOR 1-ACADEMIC YEAR

The clock is ticking, and the semester is ending! Your support is needed now more than ever because we want these students to **complete** the AAS degree by this time next year. Your contribution will ensure a seamless matriculation from high school to college and provide a guided pathway to an additional completer.

Your donation of \$5,000 will provide full tuition and fees for one academic year.

WHY YOU?

With your support, we will break the cycle of how difficult it will be for these dual credit students to obtain the funds needed to continue their education. Moreover, how the Business Technology Division will help students through the process. When you support CC, you help build this community of acceptance and encouragement to grow. You help our students get an AAS degree in 1-year and become productive citizens in our community.

Also, your donation ensures the CC Business Technology Division provides free education to our dual credit students who have completed the Level 1 certificate and now only need 1-year to complete the AAS degree. For one student, \$5,000 will provide full tuition and fees for one academic year.

I *ask* you to please consider donating and Adopt a Student today!

Sincerely,

Mia D. Taylor

CC Faculty Member Who Cares!

APPENDIX E: FIELD TEST EXPERT EVALUATIVE SECTION
ASSIGNMENTS

Field Test Experts

As a field test expert, please provide the following background information:

1. Years of experience in higher education.
2. Briefly describe your experience working with the dual credit program.
3. Educational background.

Confirmed Volunteer Field Experts

Dual Credit Instructors

Review Section 1

- Section 1: Introduction to Dual Credit
- § Mrs. B- Review Section 1
- § Mrs. L- Review Section 2

Dual Credit Administrators

Review Sections 1 and Section 2

- Section 2: Student Role and Persistence
- Section 3: Retention Initiatives and Processes
- § Mrs. P, P-16 Director
- § Dr. L, Dean College Readiness
- § Ms. R, Dual Credit Success Coach



Student Persistence & Success

Review Sections 2 and Section 3

- Section 2: Student Role and Persistence
- Section 3: Retention Initiatives and Processes
- § Dr. G, Vice-Chancellor of Student Services

Finance and Administration

Review Section 4

- Section 4: Resource Allocation
- § Mrs. W, Executive Director Finance and Administration

Discussion and Reflection

- § Mia Taylor, Student Researcher

APPENDIX F: GENERAL EVALUATIVE RUBRIC FOR THE DUAL CREDIT
HANDBOOK

FTE EVALUATIVE RUBRIC FOR THE BT-DCW HANDBOOK

1. Does the BT-DCW Handbook clearly explain the DC Level-1 course information, activities, and field trip experience to the hospital?
2. Do you think the course handouts and student activities are helpful and valuable to students' learning experience in dual credit?
3. Does the BT-DCW Handbook address the support services offered in the dual credit program?
4. Does the BT-DCW Handbook provide strategies to increase student motivation in the Dual Credit Level-1 Certificate program?
5. Do the proposed strategies address how to help students matriculate to the AAS degree program?
6. Does the BT-DCW Handbook address receiving faculty support and guidance from instructors to make informed career decisions in the DC program?
7. Does the BT-DCW Handbook address career counseling as a resource from the community college staff and counselors to help them compete for an entry-level position in the business technology field?
8. Do you believe the support resources and academic services offered to DC students help them successfully transition into the community college 2-year degree program? If yes, what services do you view as the most helpful?
9. Do you feel students need to have a mentor or monthly counseling support to help them persist in your AAS program?
10. To improve the quality of the BT-DCW Handbook, are there any final recommendations or remarks that you would like to share?