5-4-2020

New Jersey community college and high school Concurrent Enrollment Program (CEP) partnerships case study

Darlene Mary Schapley
Rowan University

NEW JERSEY COMMUNITY COLLEGE AND HIGH SCHOOL CONCURRENT ENROLLMENT PROGRAM (CEP) PARTNERSHIPS CASE STUDY

by

Darlene Mary Schapley

A Dissertation

Submitted to the
Department of Educational Services and Leadership
College of Education
In partial fulfillment of the requirement
For the degree of
Doctor of Education
at
Rowan University
March 18, 2020

Dissertation Chair: Monica Kerrigan, Ed.D.

Dedications

My dissertation is dedicated to my husband for his patience and support and my children Amanda, Ron Jr., and Kyle who uniquely found their paths in life through challenges, hardships, and successes and allowed me to learn through your experiences, strength, and passion. I also dedicate this dissertation to educators creating opportunities for student success.

Acknowledgments

Thank you to my family and friends who stood by me with encouragement and support on this journey including my husband Pete, my children Amanda with husband Jorgie, Kyle and fiancé Kelly, Ron Jr. and significant girlfriend Jaime, my mother Pat, Donna, Cindy, Audrey Z., Jacque, Alberta, Christina, Joanne, Kervin, Audrey L., Alyssa, AJ and Rowan Cohort IV CCLI. You all know how you contributed to the completion of my dissertation and I want to publicly acknowledge my appreciation. I am thankful for my professional dissertation committee including Dr. Monica Kerrigan, Chair and Associate Professor in the Educational Services and Leadership Department at Rowan University for her guidance, Dr. Larry Nespoli, former President of the New Jersey Council of County Colleges for his leadership, and Dr. Steven Rose, President of Passaic County Community College for his knowledge and experiences. Each person helped this dissertation become a reality. I believe each of us makes a difference in someone's life every day. It does take a village to raise a child. Those of us in education are fortunate to work with students and learn from each other.

Abstract

Darlene Mary Schapley
NEW JERSEY COMMUNITY COLLEGE AND HIGH SCHOOL CONCURRENT ENROLLMENT PROGRAM PARTNERSHIPS CASE STUDY
2019-2020
Monica Kerrigan, Ed.D.
Doctor of Education

Students who are not college ready enter New Jersey Community Colleges placing in developmental education delaying entry into their degree program and possibly ending their aspiration for college completion. Students not completing a college degree cannot compete for livable wage jobs in America. My qualitative multiple case study contributed to the gap in knowledge about New Jersey partnerships offering comprehensive CEP programs including math and English from the participant perspectives. CEP partnerships engaged students in college coursework at New Jersey high schools in collaboration with New Jersey community colleges. These collaborations are great opportunities for community colleges to provide access for students to prepare or maintain college readiness with the goal of persistence and degree completion.

Based on my literature review and demonstrated by my findings, CEP partnerships collaborate to allow students to experience the rigor and expectation of college. Partnerships were unaware of CEP processes and procedures statewide. A CEP academic and financial model could combine best practices to possibly scale up CEP in New Jersey to enhance statewide collaborative partnerships contributing to alignment of high school to college. Further research of CEP credit transfer and CEP student trajectory would be beneficial to understand NJ CEP partnerships and student outcomes.

Table of Contents

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

List of Tables

Chapter 1

Introduction

K-12 and community college partnerships emerged to reduce the number of students entering community college in developmental math and English (Center for Community College Student Engagement, 2016). The connection between college and high school provided strategies for students to become or remain college ready while in high school (McCormick & Johnson, 2013). Creech and Clouse (2013) indicated high school interventions reduced the need for remediation in college. Hughes, Rodriquez, Edwards, and Belfield (2012), stated that concurrent enrollment programs (CEP) were initially developed for high achieving students to take advantage of college coursework, but CEP courses could be beneficial for low and middle achieving students. CEP is a strategy reducing the need for developmental education in college depending on the CEP course selected (An, 2013).

Seventy percent of students entered New Jersey community colleges in math and English developmental education (Governor's Council on Higher Education, 2015). Community colleges are open access, but students taking a required placement test immediately after community college admission could be limited in their course selection for those placing into developmental education (Scott-Clayton, 2012). Disparities existed with a higher percentage of Asian and White students prepared for college than Native American, Hispanic, or Black students (Adams, 2015). This is a significant problem because students who delayed entry into their college degree programs while completing a series of developmental education courses, delayed or ended college degree completion (Scott-Clayton, 2012). Developmental education impeded access to college programs

(Bahr, 2011). Degree completion challenges were linked to students entering college underprepared for college coursework (Rutschow & Schneider, 2011). With half of the jobs in the United States requiring higher education (The White House, 2015), students prepared for college were more likely to complete their college degree and gain access to livable wage jobs. The urgency in addressing CEP would be in providing access to degree completion opportunities and livable wage jobs for students and the economy.

My study of New Jersey community college and high school partnerships investigated CEP collaborations understanding if college readiness was at the core of developing and maintaining these college and high school relationships and why specific CEP courses were developed. McCormick, Hafner, and Saint-Germain (2013) posited college readiness does not have a clear definition due to the misalignment between high school and higher education. CEP addresses this misalignment with collaborative partnerships. High school and college collaborations promoted high school to college alignment (An, 2013).

In my dissertation I presented information on the theoretical frameworks of collaboration and student engagement, concurrent enrollment programs, educational legislation, high school and state policies, New Jersey CEP initiatives, college readiness, college placement testing, and developmental education in math and English to ground my study in my literature review. My methodology section laid out my research plan completing a qualitative multiple case study of CEP partnerships in New Jersey. Data have been collected and analyzed according to my methodology and protocols. The findings were presented, followed by a conclusion with implications and

recommendations for continuing to connect CEP with the opportunity for college readiness to promote college persistence and completion in New Jersey.

Background

The national goal established in 2012 was to reduce the number of students entering college unprepared by 50% (American Association of Community Colleges, 2018). Colleges blamed secondary education for not ensuring students were college ready. Secondary educational districts blamed colleges for placement testing of high school graduates and requiring developmental educational courses. According to Dr. Patricia C. Donohue, past President of Mercer County Community College as cited in Lipka (2014), partnering with high school districts and colleges leads to "the end of the finger pointing" (para. 14). Collaboration facilitated connections to explore challenges with combined resources providing different perspectives from contributing stakeholders (Gray, 1989; Trubowitz & Longo, 1997; Mattessich, Murray-Close, & Monsey, 2001). Overcoming partnership challenges and working collaboratively on college readiness in CEP, partnerships connecting high school to college was in the best interest of the students.

When students applied to community colleges in New Jersey without a qualifying ACT or SAT score for exemption, they took the Accuplacer college level placement test (New Jersey Council of County Colleges, 2017b). "Many colleges are now using multiple measures such as PARCC, SAT, and high school grades to determine placement" (New Jersey Council of County Colleges, 2018). The Scholastic Assessment Test known as SAT produced by the College Board, and the American College Testing known as ACT produced by ACT, Inc., are standardized assessments that students typically take in their

junior year of high school for college admission applications (Federal Student Aid: Office of the U.S. Department of Education, n.d). Students were granted exemption by their admitting college from placement testing if they reached the cut score required in math or English (Federal Student Aid: Office of the U.S. Department of Education, n.d). Without these exemptions the New Jersey Council of County Colleges (2017, October 2) adopted guiding principles which considered multiple measures of college readiness in math & English. Over half of students nationwide did not place into college level courses in math and English when they applied to community colleges and took the placement test (National Conference of State Legislatures, 2015). Students were 72% college ready in English, but only 40% college ready in math (Schak, Metzgar, Bass, McCann & English, 2017).

New Jersey was one of 32 states that did not require a senior year math course (Zinth, 2012), while most states required English for all four years (Zinth, 2012). In New Jersey, English was required for all four years of high school, but math was only required for three years in high school (Zinth, 2012). Attrition of math skills occurred after a lapse in time and exposure to math (An, 2013). Without a senior year math requirement and the possibility of waiting over a year to take the placement test to enter New Jersey community colleges, students who did not meet the cut scores were directed to developmental education. Schak et al. (2017), stated that the percentage of students entering public two-year institutions in developmental math was nearly 60%, while the percentage of students entering public two-year institutions in developmental English was 28%.

Students who placed into developmental education may be required to take a sequence of developmental courses, depending on their placement. The results of developmental education could be years of non-credit bearing courses that did not apply to their college degree program, exhausted financial aid resources, and students may not complete their degree (Bailey, Jeong, & Cho, 2010). Maintaining college readiness while in high school could avoid this slope to developmental education prior to college admission with the improved possibility of students entering college into their college degree program. High school students taking college courses were ready for college level coursework and maintained college readiness (An, 2013). The CEP course could satisfy a course requirement towards their college degree, depending on the CEP course taken and the college degree program selected. CEP courses exposed high school students to college level courses and allowed students to accumulate college credits to shorten their path to college degree completion. Students taking CEP had positive college degree completion rates (Fink, Jenkins, & Yanagiura, 2017). Thacker (2014) reported that students taking college courses in high school were more likely to be retained in community college, graduating community college within three years, and completing college one-half semester earlier than students who did not participate in CEP.

Problem Statement

Nearly 70% of students entered New Jersey community colleges into developmental courses because they were not college ready (Governor's Council on Higher Education, 2015). Developmental courses stalled or derailed students' college careers and exhausted financial aid resources (Scott-Clayton, 2012). Collaborative partnerships between New Jersey community colleges and high schools offering CEP

could accelerate student access to and success in college, giving students the opportunity to maintain college readiness by participating in a college course while in high school and attaining a college degree after high school. Upon successful completion of the CEP course students may enter college directly into their college degree program, depending on the CEP course completed (An, 2013). Using my research questions, I have explored the depths of how and why New Jersey community colleges and high schools collaborated to offer CEP, how they decided on course selections, and if student engagement, collaboration, and college readiness informed the decision to offer CEP. Findings from my research questions addressed CEP partnerships as it pertained to the concept of student college readiness.

Research Design and Framework

My study of New Jersey community college and high school partnerships offering CEP answered my research questions following my research design and methodology. As the researcher using qualitative case study methodology, I was the main instrument in data collection and analysis (Miles & Huberman, 1994) contributing to the knowledge and practice to share with others (Yin, 2014). My conceptual framework of college readiness addressed the high percentage of students entering New Jersey community colleges underprepared for college level courses. Strategic initiatives, such as college and high school partnerships offering CEP, for student success in college were explored. Student engagement and institutional framework for student success (Tinto 1993, 2007, 2008, 2012) and collaboration theory (Gray, 1989; Trubowitz & Longo, 1997; Mattessich et al., 2001) grounded my research studying CEP partnerships between New Jersey community colleges and high schools.

Significance of My Study

The significance of my study of New Jersey community college and high school CEP partnerships was to understand the opportunity and value of collaboration which can contribute to college readiness and student engagement in college coursework. Students successfully completing CEP math and English avoided developmental courses when admitted to New Jersey community colleges. My study found CEP partnerships in New Jersey contributed to college preparation of high school students giving these students the opportunity to persist in college degree completion. Former dual enrollment students have shown persistence and attainment of college degrees (Zinth & Taylor, 2019). This study was timely given the national and statewide interest and growth in CEP. Although other studies measured the outcomes of CEP, this study contributed to the understanding of how and why CEP partnerships were developed, how they function, and how they can contribute to student success.

Until the 2015-2016 academic school year, the New Jersey Department of Education had not included concurrent enrollment in their reporting (New Jersey Department of Education, 2016b). According to the New Jersey School Performance Reports – Interpretive Guide (2014), the New Jersey Department of Education was considering the inclusion of dual enrollment for future reporting. The same statement can be found in the 2015 report (New Jersey Department of Education, 2015), however dual enrollment was included in the 2014-2015 data with Career and Technical Education (CTE) and Structured Learning Experiences (SLE). Dual enrollment was defined as high school students enrolled in college courses for credit prior to high school graduation (New Jersey Department of Education, 2016b). Dual enrollment had a broader scope that

could include high school students taking courses online or on the college campus as well as concurrent enrollment where high school students take college courses on their high school campus. The average participation in dual enrollment in the 2014-2015 school year was about 14% (New Jersey Department of Education, 2019).

Dual enrollment data was moved to the Advanced Placement (AP), International Baccalaureate (IB), and Dual Enrollment (DE) tab in the 2015-2016 school year with an increase to 15% participation in dual enrollment (New Jersey Department of Education, 2019). Moving dual enrollment data from career and technical education and structured learning experience to AP and IB data may indicate that dual enrollment related more to college preparation than to career preparation. As stated in the report by the New Jersey Department of Education (2016b), "Participating in one of these programs (AP, IB, or DE) in high school is one of the strongest predictors of college readiness and has been supported by years of peer reviewed research." The 2016-2017 data showed dual enrollment increased to 17% (New Jersey Department of Education, 2019). In 2017-2018 dual enrollment decreased to about 13% but was again increased to 19% in the 2018-2019 school year (New Jersey Department of Education, 2019). Data were not available for the 2019-2020 school year at the time of this dissertation.

According to Zinth & Taylor (2019), there is a lack of national and state data systems needed to answer policy related questions. Data collection should include input from higher education and high schools to ensure the relevance of the data collected (Zinth & Taylor, 2019). New Jersey CEP partnerships would benefit from relevant data to provide innovation in CEP to contribute to increased access and success for students.

Xu, Fink, & Solanki (2019), identified disparities between White and Black as well as White and Hispanic students that were greater in AP than in dual enrollment programs. Dual enrollment may have the ability to reach students in career and technical education programs whereas AP had a standardized academic program (Xu et al., 2019). CEP partnerships in New Jersey could scale up these programs providing more students with the option to participate in college level courses and possibly minimize these gaps.

Career and technical education dual enrollment, multiple measures for access to CEP courses, and providing support to lower and middle-achieving students were strategies used to increase student participation in a college level course in high school (Zinth & Barnett, 2018). My research identified that partnerships generated college boot camps, placement test preparation, and alternative learning programs creating college readiness opportunities for students to successfully place into CEP courses or enter college. Students participating in CEP are more likely to persist and graduate college (Thacker, 2014).

Nationally 47% of community college dual enrollment students attended community colleges, 41% attended four-year colleges, and 12% did not attend college by the age of 20 (Fink et al., 2017). Zinth (2016) stated that New Jersey must provide a means for students to participate in dual enrollment regardless of their ability to pay. Most states leave financial decisions for dual enrollment up to the local authorities, some specify that students and parents pay, a few programs are state funded, and a few had a combination of state and student and parent payments (Zinth, 2016). Because dual enrollment is more likely to serve underrepresented students than other programs such as AP (Zinth & Taylor, 2019), it is essential that low income students have the opportunity

to participate in CEP. Funding for CEP partnerships in New Jersey can ensure equitable access to CEP expanding opportunities for college readiness and college completion.

With only three years of math required in New Jersey high schools, there is a gap in time and attention to math concepts which could contribute to attrition of math skills and the possibility of entering developmental education upon college admission (Bahr, 2011). CEP math provided the opportunity for students to take college level math while in high school. Eckert (2008) reported on the misalignment between high school and college English course pedagogy. Bridging the English skills gap by including critical thinking literacy strategies in high school could prepare students for active analysis and interpretation of the literature (Eckert, 2008). While four years of English were required in high school, CEP English gave students the option to participate in college English while in high school. Creech and Clouse (2013) recommended collaborative partnerships between high school and college addressing college and career readiness and reducing entry into developmental education in college. CEP partnerships in New Jersey provided alignment opportunities for engaging high school students in college courses, preparing students for college pedagogy, and accelerating their college careers

Purpose of My Study

My descriptive case study research design of New Jersey community colleges and high schools who participated in comprehensive CEP partnerships explored college readiness, collaboration and student engagement theory from the participant perspectives. According to Yin (2014), case study research relates to the desire to understand real world perspectives to explain presumed causal links and explore rival explanations. Prepared interview questions were used to obtain detailed and in-depth data from

administrators and faculty at New Jersey community colleges and high schools participating in CEP. In-depth qualitative interviewing with open-ended questions gave me the ability to delve deeper into these collaborations and explore further questions as needed (Rubin & Rubin, 2012).

My case study addressed New Jersey community colleges offering comprehensive CEP to understand how collaborative partnerships, student engagement, and college readiness informed these relationships. My proposition was that New Jersey community colleges and high schools collaborated to offer CEP because they wanted to give students the opportunity of experiencing college coursework, accumulating college credits, and maintaining college readiness to be successful in college. My rival explanation was that New Jersey community colleges and high schools offered CEP to promote another course selection option for eligible high school students and to increase community college enrollments. Investigating CEP allowed me to explore these collaborative partnerships and their ability to address student engagement and college readiness from the college and high school administrator and faculty perspectives.

The New Jersey Council of County Colleges (2017a), offered coordinated autonomy for New Jersey community colleges, but did not have legislative authority to require community colleges to offer specific programs or courses, such as concurrent enrollment programs, developmental education courses, or specific college level courses. Each New Jersey community college in partnership with high schools created their own course names, descriptions, CEP processes and procedures. All community colleges in New Jersey partner with high schools to offer CEP engaging high school students in college level work, however few identified as offering a comprehensive selection of CEP

courses including math and English. My case study of CEP partnerships that offered a comprehensive selection of CEP courses helped me to report on how and why the partnerships were developed as well as how the decision was made to offer specific CEP courses.

Using prior research and knowledge, a collaboration of organizations concerned with education in the United States developed core principles for transforming remediation of college bound students with strategies for student success (Achieving the Dream, American Association of Community Colleges, Charles A. Dana Center, Complete College America, Educations Commission of the States, and Jobs for the Future, 2015). According to the Center for Community College Student Engagement (2016), numerous innovations are available to improve student success such as, multiple measures for placement, co-requisite courses, redesigned math, computer based math and English lessons, accelerated developmental courses in math and English, high school and college partnerships, and improved preparation for placement testing. The consortium of agencies (Achieving the Dream et al., 2015) identified the importance of high school and college partnerships in implementing strategies for student success (Achieving the Dream et al., 2015). CEP partnerships may have the ability to transform developmental education in New Jersey. My proposition was that collaboration factors such as a favorable climate, shared vision, and mutual respect facilitated CEP relationships with prepared written agreements for the common goal of aligning high school and college, which is supported by my findings.

My findings showed that collaborative partnerships with community colleges and high schools were imperative to offering CEP, which provided opportunities for students

and institutions. Students experienced college coursework, accumulated college credits and maintained college readiness with CEP courses. Community colleges had the benefit of recruiting CEP students, increasing enrollment with high school students who took summer and night courses at full tuition, and the possibility of counting CEP students in their enrollments if they incurred the cost of instruction. Student engagement characteristics and student engagement classroom strategies were identified in the CEP partnerships along with maintaining academic integrity aligning college courses with high school courses, approving curriculum, and qualifying the high school teacher as a college adjunct.

Taking CEP courses in high school contributed to college readiness (An, 2013). While English is required for all four years in high school, there is a misalignment between high school and college English (McCormick et al., 2013). This misalignment could be part of the problem for student college readiness in English. Students in New Jersey and other similar states with only three years of math required in high school may also be at a disadvantage for math college readiness. Students may forget math concepts when they do not take a math course in their senior year of high school. The time lapse between students' last math course in their junior year in high school and college admission could be over a year, which could lead to developmental education in math.

Limitations and Delimitations

The limitations of my study were that I only studied CEP with New Jersey community college and high school partnerships because program and course offerings in New Jersey were not determined by the state but were developed at each individual community college level. I did not research other community colleges outside of New

Jersey nor did I investigate other colleges inside of New Jersey since I concentrated on community colleges in New Jersey who offered CEP to high school students on their high school campus, taught by a high school teacher qualified as a college adjunct. While I investigated CEP partnerships, I did seek to understand if college readiness was addressed to keep high school students prepared for college. One further limitation is that my study did not investigate other programs offered to students who do not meet the requirements to place into CEP courses. A future study could research other initiatives for students who fall below the placement requirement in math and English for CEP courses offered by New Jersey community college and high school partnerships.

My study delimited by my qualitative multiple case study research design generalized my propositions, rival explanations, and findings to student engagement and collaboration theory and the concept of college readiness. Providing this narrow focus with my succinct research questions allowed me to define the boundaries of the case (Yin, 2014). My unit of analysis, New Jersey community college and high school CEP partnerships, and research of New Jersey community colleges and high schools from the perspective of college and high school administrators and faculty, triangulated my data to avoid incomplete findings.

Organization of My Dissertation

Chapter 1 created the introduction to my dissertation including background of the phenomenon, problem statement, research design and framework, significance of my study, purpose of my study, limitations and delimitations of my study and this organization section to let the reader know what to expect from the rest of my dissertation. Key terminology is presented at the end of this chapter for understanding of

the terms used in this dissertation. Chapter 2 reviewed the literature pertaining to the theoretical frameworks of collaboration and student engagement, concurrent enrollment programs, educational legislation, college readiness, college placement testing, developmental education, and methodology literature review. Chapter 3 delved into my research methodology providing the guidelines for my research. The methodology section consisted of my purpose statement connected to research questions linked to theoretical propositions and rival explanations, research design, unit of analysis, limitations, researcher's role, setting, participants and confidentiality, purposeful sampling, triangulation, instrumentation, data collection and analysis, Institutional Research Board (IRB), and an introduction to my findings followed by the conclusion. After spending time with my data, which included complete coding and analysis, my findings were reported in Chapter 4. My conclusion, including interpretations reflective of the connections to my literature review and leadership implications, were included in Chapter 5.

Key Terminology

College Readiness – upon college admission students can pass competency assessments or placement tests demonstrating that developmental education is not needed (Karp, Bailey, & Hughes, 2004).

Comprehensive Concurrent Enrollment Program – see Concurrent Enrollment Program (CEP) for definition of those courses. Comprehensive CEP were programs that offered both math and English CEP courses.

Concurrent Enrollment Program (CEP) – college courses taught by a high school teacher qualified as a college adjunct, on the high school campus during the high school day

where students earned both high school and college credit concurrently for the same course upon successful completion, sometimes substituted with other terms such as dual enrollment (National Alliance of Concurrent Enrollment Partnerships (NACEP), 2016).

Developmental Education – also known as remedial education – courses in math and English that are not college level, but college students take based on a placement test, that do not count towards their degree requirements, but are charged tuition (Scott-Clayton, 2012). These courses are designed to reteach math and English concepts from middle and high school (Jaggars & Stacey, 2014).

Dual Enrollment – could be a broader term to include high school students taking college courses online or on the college campus as well as students taking college courses at the high school. see Concurrent Enrollment Program

Faculty - professionals who teach at the colleges or high schools – used interchangeably with college professors employed at a college and CEP teachers employed at a high school

Qualified Teacher – a high school teacher who typically has a master's degree in the subject area to qualify as a college adjunct (National Alliance of Concurrent Enrollment Partnerships, 2016).

Remediation – see developmental education

Student Engagement – academic and social engagement including involvement, time on task, and quality of effort associated with positive outcomes for students (Tinto, 2007).

Chapter 2

Literature Review

This literature review pulled together relevant sources of information that address community college and high school partnerships and concurrent enrollment programs (CEP) as they related to maintaining college readiness, engaging collaborations, promoting student engagement, and avoiding developmental education. I aligned my research questions with my theoretical framework of collaboration and student engagement. I linked literature on CEP components to the conceptual framework of college readiness. Information gathered in my literature review facilitated answering my research questions, propositions, and rival explanations on New Jersey community colleges offering CEP courses at the high school with a high school teacher qualified as a college adjunct.

College and high school collaborations promote high school to college alignment, leading to increased student success in college for students who maintain college readiness, avoid developmental courses, and accumulate college credits while in high school (An, 2013). Taking CEP courses at the students' high school accelerated the accumulation of college credits and upon successful completion allowed New Jersey high school students to enter New Jersey community colleges ready to pursue a college program of study without the threat of costly and time consuming developmental education courses, depending on the CEP course completed. Students who participated CEP math or English may meet those general education requirements for their degree program and may not need to take additional math or English courses in college, depending on the college program selected.

My case study explored how collaboration facilitates community college and high school partnerships in New Jersey offering CEP. I sought to understand how and why community college and high school administrators and faculty decided to participate in these partnerships to offer CEP and how the decision of CEP course selection was made. Faculty were defined in my study as those professionals who teach at the community colleges or high school teachers qualified as a college adjunct to teach CEP courses, unless I specified college professors or high school teachers. I explored how the decision is made to offer CEP and if student engagement, collaboration, and college readiness informed this process and decision. Tinto (2008), posited that student involvement in their education is key to engagement and persistence. New Jersey community college and high school partnerships could be key to facilitating student engagement in their education and student success in college.

Collaboration (Gray, 1989; Trubowitz & Longo, 1997; Mattessich et al., 2001) as well as student attrition, student retention, student engagement, and student success (Tinto 1993, 2007, 2008, 2012) provided theories and concepts that I explored pertaining to CEP partnerships with New Jersey community colleges and high schools. Preparing a literature review requires sufficient evidence of empirical research to provide a clear logical structure to critically evaluate and justify the topic (Hart, 1998). My literature review on the theoretical frameworks of collaboration and student engagement, as well as concurrent enrollment programs, educational legislation, college readiness, college placement testing, and developmental education provided the groundwork for my study of CEP offered in partnership with New Jersey community colleges and high schools.

Theoretical Framework

Multiple theoretical frameworks ground my study in collaboration theory with contributions by Gray (1989), Trubowitz and Longo (1997), and Mattessich et al. (2001) and Tinto's theory of institutional framework for student success (Tinto, 2007; Tinto, 2012), student academic and social engagement (Tinto,1993; Tinto, 2007) to understand high school and community college partnerships established offering CEP in New Jersey. These combined theories addressed how the partnerships collaborated and if they offered CEP with the intent of supporting student engagement in college coursework and to address the conceptual framework of college readiness. Students earning high school and college credits for successful completion of the CEP course gained an early college experience, which prepared students to enter college as college ready for a degree program, avoiding developmental education, if prepared in both math and English. Prepared students avoid developmental courses in college (An, 2013).

These partnerships could facilitate enrollments from high school to the community college or could be mandated by higher level officials promoting local shared resources. According to Tinto (2012), formal academic as well as formal and informal social connections enhanced student satisfaction and retention. CEP courses connected students at their high school forming the bond for social and academic engagement with their peers that could continue on the college campus for students who attended their local community college after participating in a CEP course. CEP partnerships with New Jersey community colleges and high schools promoted the connection from high school to college. These partnerships could also promote transition from high school to college and increased community college enrollments.

Collaboration

Secondary and postsecondary partnerships could focus on shared vision and important work, in the best interest of the students, moving beyond barriers and challenges of collaborative partnerships. While Tinto is the expert in the field of student departure and college engagement, various researchers contributed to the theory of collaboration (Gray, 1989; Trubowitz & Longo, 1997; Mattessich et al., 2001). These authors' contributions to collaboration theory were relevant to my study because their work could be applied to an educational setting. Gray's 1989 book "Collaborating: Finding Common Ground for Multiparty Problems" established an early exploration and a foundation for collaboration theory. Professional learning communities provided a means for collaboration (Putnam, Gunnings-Moton, & Sharp, 2012). Mattessich et al. (2001) established categories and factors as criteria to evaluate collaborations. Trubowitz and Longo (1997) documented collaboration efforts and pitfalls between a college and school system.

Examples of successful collaborations in education. Several examples of educational collaborations in the United States promote student success. The California State University partners with their local school district offering credit bearing courses in the senior year of high school, summer bridge programs for students not ready for college level work, and targeted academic advising to encourage student access to college (Tinto, 2012). Trubowitz and Longo (1997) discussed the Queens College and Louis Armstrong Middle School initiative to improve the education of precollege children. The College Now program connected New York City public high school students with City University of New York (CUNY) by offering credit bearing courses and other college experiences

(Tinto, 2012). According to Tinto (2012), participants in these programs performed better than non-participants once they attended college. Collaborative initiatives between high school and college can be successful in preparing students for college performance.

Definition of collaboration. Gray (1989) defined collaboration as "a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible" (p.5). According to Trubowitz and Longo (1997), collaboration attempts to bring together resources and knowledge from outside of the boundaries of an institution. Mattessich et al. (2001) linked collaboration with partnerships that tackle issues beyond the scope of one organization. A professional learning community (PLC) fostered collaboration by breaking down walls of isolation and establishing linkages between partners (DuFour & Eaker, 1998). Trubowitz and Longo (1997) identified principles for collaboration, but noted that they are neither instructive nor prescriptive, adding to the ambiguity of collaboration.

Principles of successful collaboration. Mattessich et al. (2001) reported that principles of the theory of successful collaboration provided insight into specific challenges and a means of evaluating the viability of partnerships. Mattessich et al. (2001), identified six categories for organizational collaborations including environment, membership characteristics, process and structure, communication, purpose, and resources. Each category is further broken down into success factors that can be evaluated, with the greater number of factors increasing the likelihood of successful efforts towards their partnership goals (Mattessich et al., 2001). Gray (1989) identified factors of collaboration to induce success such as, inclusion of all stakeholders, sufficient

stakeholder incentives, agreement of the scope of the collaboration, ripeness of the issues, negotiating in good faith, and maintaining relationships. Trubowitz and Longo (1997) provided some overlapping principles such as providing clarity of vision with flexibility, identifying mutual benefits, cultivating relationships, and building trust and respect for each other in the partnership. These principles and factors contributed to understanding the collaboration of community college and high school administrators and faculty offering CEP courses.

Strengths and opportunities of collaborations. Strong K-12 and higher education collaboration is essential for ensuring that skills and knowledge taught and assessed in high school aligned with college skills needed for success in college (Barnett, Fay, Pheatt, & Trimble, 2013). This mutual benefit is one of the greatest strengths of collaboration (Trubowitz & Longo, 1997). Effective college partnerships focus on student achievement by co-creating a shared vision, continued open communications, joint decision making, and reflective evaluation (Sanders, 2006). Interdependence and shared vision of collaborations bring relevant people together as a team to work towards their individual goals and group goals (Gray, 1989).

Weaknesses, threats, and challenges of collaborations. Gray (1989) discussed challenges to collaborations including avoiding polarizing conflicts, protecting their own interests while respecting others' perspectives, integrating the needs and interests of a diverse population, institutionalizing collaborative processes, and understanding that progress can be slow. Because of the slow progression towards goals and a culture shift of shared governance, administration has difficulty relying on PLCs when policymakers are looking for a quick fix (Fullan, 2007). Trubowitz and Longo (1997) noted differences

between higher education and school districts that posed threats to collaboration such as time management, values of initiatives, tolerance for ambiguity, expectations, skepticism, balance of moving initiatives forward, and maintaining order. College personnel may defer to school personnel on subjects happening on the high school campus that disproportionately affect school personnel (Trubowitz & Longo, 1997).

Putnam, Gunnings-Moton and Sharp (2012), addressed perceptions and concerns of teachers and faculty in secondary and postsecondary collaborations with a history of negative experiences requiring open communication for improved relationships. Secondary teachers felt devalued by college professors who had their own agenda, would make decisions without the input of the high school teachers, and created meeting agendas without including topics that the high school teachers wanted to address (Putnam et al., 2012). Processing these concerns in an open forum created better mutual understanding and opportunity for college professors and high school teachers to develop conditions of the PLC relationship (Putnam et al., 2012). Using technology to create shared meeting agendas and rotating meeting places between secondary school district and postsecondary campus locations created more synergy in the PLC (Putnam et al., 2012). Gray (1989) agreed that inclusion of all stakeholders provided for an effective collaboration.

Maintenance and continuation of collaborations. PLCs are not linear and change as the vision and participants ebb and flow (DuFour & Eaker, 1998). Trubowitz and Longo (1997) stated that school-college collaboration began with a common vision and definition of roles and responsibilities which evolved over time. Flexibility and persistence were key to maintaining collaborations (Gray, 1989). According to

Mattessich et al. (2001), creation of the Wilder Collaboration Factors Inventory as a survey instrument helped partnerships learn from the results and improve success of their collaboration. This instrument was used in my study of CEP collaborations identifying factors of the college and high school partnerships to understand the collaboration status. Secondary and postsecondary partnerships exposed students to information about college preparing them for the transition from high school to higher education (Sanders, 2006). Building collaborative partnerships helped to promote environments for active involvement and learning of all students (Tinto, 2008).

Institutional Framework for Student Success and Student Engagement

The theory of institutional framework for student success (Tinto, 2012) and academic and social engagement (Tinto, 2007) are explored through the college and high school partnerships offering student engagement in a CEP course. Taking a college credit bearing CEP course while in high school provided the opportunity for academic and social engagement of students and the institutional framework of connecting secondary to postsecondary education. Tinto (1993) acknowledged that college credit courses offered to high school students gave students the opportunity of gaining insight into college coursework, increasing college attendance, and reporting higher rates of college completion.

Definitions. An institutional framework provided the conditions such as engagement, expectations, academic support and feedback for student success (Tinto, 2012). According to Quaye and Harper (2015), intentionality of institutions provided actions that engaged students and considered the outcomes of those actions. Student engagement is identified as academic involvement, time on task, and quality of effort,

and has been associated with positive outcomes for students (Tinto, 2007). Engaged students are more likely to persist in college courses (Tinto, 2008). According to An (2013), participation in concurrent enrollment programs enhanced student engagement and motivation.

Institutional framework for student success. Historically when students departed higher education the blame was placed on the student since the student was not prepared for college or a career, but theory of academic and social engagement refers to the relationship between the student and the institution (Tinto, 2007). This shift in responsibility from the student to the institution identified institutional engagement opportunities for students to learn and persist. Tinto (2007), described why students depart from higher education and the concept of student engagement, but institutions need further guidance on how to keep students engaged to persist and complete college. Continuous assessment and feedback from faculty and staff provided a means to adjust actions that promote or hinder student success in higher education (Tinto, 2012).

Student success. While student retention was thought to be the key to student success by increasing graduation rates, student success has been redefined based on the students' definition of success and their intentions (Tinto, 2008). Student success allows institutions to consider the possibilities of students' intentions to transfer or take only one course without the intent to graduate (Tinto, 2008). Instead of looking at low graduation rates as failures, institutions can celebrate the success of students' college-going intentions.

Colleges with supportive environments encouraged social and educational engagement for all students (Tinto, 2012). Students are more likely to persist to

graduation, if that is their intention, in institutions fostering active collaborative learning and creating social and intellectual connections with others (Tinto, 2008). When students felt disconnected in our educational system of individual learning in lecture environments and were confused with unfamiliar disconnected educational processes in admissions, enrollment, financial aid, finance, etc., then they were least likely to stay in college (Tinto, 2008). Connecting high school to college and providing information about admissions, placement testing, and advising of available programs of interest helped alleviate the confusion of higher education terms and processes improving the student's college experience.

Academic and social engagement. According to Quaye and Harper (2015), students engaged in college were more likely to persist through graduation. Student engagement may be the most important factor in student retention and completion (Tinto, 2007). Tinto (2012) stated "Such engagements lead not only to social affiliations and the social and emotional support they provide, but also to greater involvement in educational activities and the learning they produce" (p. 7). Community college students, with a large number of commuting students, may only engage with student peers and faculty in the classroom due to students' work and family commitments (Tinto, 2007). With this knowledge, community colleges could provide classroom activities in college courses including CEP that engage students. CEP partnerships provided opportunities for high school students to understand higher education pedagogy and for student engagement with high school peers participating in a college course promoting or maintaining college readiness.

Concurrent Enrollment Programs

The National Alliance of Concurrent Enrollment Partnerships (NACEP) (2016), reported that concurrent enrollment programs provide college courses at the high school, taught by a high school teacher qualified as a college adjunct during the school day, giving students the opportunity to earn high school and college credits for the same course. Dual enrollment, dual credit, or college in high school are other names that are interchangeable with concurrent enrollment programs (National Alliance of Concurrent Enrollment Partnerships, 2016). My research was limited to concurrent enrollment programs that offered college courses at the high schools and did not consider courses that high school students may take at the college.

The Education Commission of the States (2020) reported 48 states have policies governing dual enrollment. McCormick and Johnson (2013), elaborated that collaborative efforts between secondary and postsecondary institutions such as the development of concurrent enrollment programs could advance successful strategies for college readiness. Concurrent enrollment courses contributed to student success making it imperative to grow and fund these programs (Arnold, 2015). Concurrent enrollment programs allowed students to take college level courses on their high school campus during their high school day, which could reduce the need for developmental education in college, depending on the courses selected (An, 2013).

Concurrent enrollment program history. Hughes et al. (2012), stated that concurrent enrollment programs were initially intended for high-achieving students seeking greater academic challenge. CEP programs have expanded to advance low and middle achieving students, especially students from low socio-economic backgrounds

and underachieving or underrepresented populations in higher education (Hughes et al., 2012). According to Bailey and Dynarski (2011), less than 10% of students in the bottom quartile of household incomes attained a bachelor's degree by age 25 compared to 50% bachelor's degree attainment in the top quartile. President Obama proposed funding to scale up innovative high school and college partnerships in his 2013 State of the Union Address (U.S. Department of Education, 2016). This led to the experimental Federal Pell Grant access for high school students at 44 select colleges participating in concurrent enrollment programs, which will provide information on the impact of low-income students' college access, participation, and success (U.S. Department of Education, 2016). The data showed that 1.4 million students participated in concurrent enrollment programs in the 2010-11 academic year (NACEP, 2016). Participation in concurrent enrollment could lead to improved academic outcomes, especially for low income and first generation students (Karp & Hughes, 2008).

Concurrent enrollment program case study. Participation in concurrent enrollment improved college readiness, however since there are admission criteria to place into concurrent enrollment, not all students qualified to participate (An, 2013). This selection process may exclude programs offered to the students more likely to place into developmental courses in college because they are not qualified to participate in CEP. Exploring CEP in New Jersey reflected on programs offered to those students qualified to participate in CEP. My study focused on the CEP partnership and investigated CEP courses offered to understand how and why these selections were made, if student engagement and collaboration facilitated these decisions, and if college readiness was at the core of the CEP course selections. I did not address programs for students who did

not place into CEP because they do not meet the CEP admission criteria. Further study of possible college readiness opportunities could be pursued to understand the needs of students falling below the concurrent enrollment admissions criteria and strategies to further advance college readiness and success for all students. My study focused only on the CEP partnerships of community colleges and high schools in New Jersey that agreed to participate in my case study. Several community colleges and high schools formed partnerships in New Jersey to offer CEP, but not all community colleges offered CEP math and English, which facilitated maintaining college readiness to avoid developmental education. My selection criteria focused on New Jersey community college and high school partnerships that offered comprehensive CEP courses including math and English. New Jersey does not currently have a state policy for concurrent enrollment programs (Zinth, 2016). Without a state policy in New Jersey, the selection of CEP courses offered were decided at the local level.

Concurrent enrollment transferability. Even with the Comprehensive State-wide Transfer Agreement commonly known as the Lampitt Law, transferability of CEP courses is at the discretion of the college attended (New Jersey Statutes 18A § 62-46, 2008). This is not unique to transfer of concurrent enrollment program credits as all college credit transfer is decided by the receiving college. Zinth (2016) stated that 22 states required all public two-year and four-year institutions to accept college credits earned through dual enrollment programs, 19 states and the District of Columbia did not require institutions to accept dual enrollment courses for transfer credit, seven states were unclear, and two states recognized other state program credits, but not dual enrollment. New Jersey was listed as accepting dual enrollment credits (Zinth, 2016), but

transferability of CEP credits appearing on a students' college transcript were dependent upon the policy of the college the student wished to attend. With a grant from NACEP, University of Connecticut created a searchable database of colleges and Universities in the United States with information about transfer of dual enrollment credits (University of Connecticut, 2018). According to the searchable website (University of Connecticut, 2018), [New Jersey state college name] excluded high school students taking a college course from their definition of transfer credits, leaving students to request individual course evaluations for transfer of concurrent enrollment program credits and possible elective credit or non-transfer of college credits.

Educational Legislation Addressing College Readiness and CEP

State-level legislation may help develop collaborative K-12 and higher education initiatives to improve college readiness (Barnett et al., 2013). Concurrent enrollment policies were found in 47 states and the District of Columbia, while three states leave policies up to local high school districts and higher education institutions (Zinth, 2016). The US Department of Education is limited in its role of educational policy based on the Tenth Amendment of the Constitution giving educational policy power to the states (U.S. Department of Education, 2015). While each state addressed educational policies differently, all states continued to face challenges and sought opportunities for college readiness of graduating high school students (National Conference of State Legislatures, 2015). "Creation and implementation of policies that improve students' ability to succeed must be on the education policy agenda" (McCormick & Johnson, 2013, p. 277). Vangen and Huxham (2013) reported that governmental influence exerts pressure on collaborations with legislative policies that mandate or constrain interests and priorities.

State policies and practices influence institutional actions, which can hinder or assist student retention (Tinto, 2007). Some pockets of initiatives, with legislative policy backing provided opportunities for improvements in college readiness while others without policy backing have failed (Vangen & Huxham, 2013).

High School and College State Policies

Reys, Dingman, Nevels and Teuscher (2007) reported that states have been working towards better alignment of curriculum standards and learning goals, especially at the high school level. High school and college partnerships could provide summer bridge programs and other transition programs that increase college readiness and the likelihood that students will persist as college students (Center for Community College Student Engagement, 2016). States varied in their involvement with high school and college policies.

In Tennessee, the Governor began an initiative named Drive to 55 with the intent of 55% of residents earning a college degree by 2025 (Barnett et al., 2013). Strategies for increasing high school graduation rates and improving college readiness, including requiring high school senior math, were added to the political agenda (Barnett et al., 2013). Developing a coalition behind initiatives and supports such as legislation can drive change (Fullan, 2007). Failing to provide better high school and college alignment for our graduating high school students can have detrimental effects on students and our society if students are not successfully educated (Barnett et al., 2013).

In 2004, California implemented the Early Assessment Program (EAP) as a collaboration between higher education and high school districts to assess college readiness in high school junior students, with opportunities for improvement in their

senior year of high school (California Community Colleges Chancellor's Office, 2017). However, EAP was not funded leaving individual colleges deciding on participation (Barnett et al., 2013). According to Kotter (2012), lack of a guiding coalition can create obstacles that fail to achieve change. This lack of legislative support led to an EAP initiative not available to all students depending on their choice of college in California. Select California colleges accepted EAP cut scores for college placement testing exemption (Barnett et al., 2013). EAP reduced remediation in 6% of students enrolling in English and 4% in math at Sacramento State University (National Conference of State Legislatures, 2015).

New Jersey Concurrent Enrollment Program Initiatives

New Jersey does not fund tuition for concurrent enrollment programs, leaving the decision to develop these programs up to the community college or school district at the local level (Jobs for the Future, 2016). New Jersey does, however, require high schools receiving Perkins funding to enter into articulation agreements with colleges offering college course opportunities to high school students in at least one program of study (New Jersey Department of Education, 2016a). The New Jersey Department of Education (2016a) informed that these program partnership agreements between secondary and postsecondary education could contain articulated credit where the credits are banked at the college until they attended that college or college credits that appeared on a college transcript, such as CEP, and typically transferred to other colleges depending on the receiving college's transfer policy. Regardless of the type of credits earned, college readiness was key to college success (An, 2013).

The New Jersey Council of County Colleges (NJCCC), in partnership with the Office of the Secretary of Higher Education, all 19 community colleges, and participating high schools, developed transition or bridge programs through the College Readiness Now (CRN) program to provide supports for more students to be college ready by the time they graduate high school (State of New Jersey, Office of the Secretary of Higher Education, 2017). The success rate of the CRN program as measured by the number of participating students who were college ready was nearly 50% (Nespoli, 2013). Also, students who did not succeed to become college ready in the CRN program significantly moved up in the development course sequence (Nespoli, 2013). Improvement in placement level for math is great news, as those students entering college in the lowest developmental education classes rarely take college level courses (Bahr, 2011). Students who participated in the CRN program improved their chances of placing into college level courses and avoided developmental education in college. If a student participated in the CRN program in their junior year of high school, then they may have the opportunity to take advantage of a CEP course if it is offered at their high school, which could save time and money and increase their momentum for college success.

College Readiness to College Completion

Approximately three in 10 students graduated community college in six years (Rutschow & Schneider, 2011). Some college students enter community college to gain knowledge or skills without intending to complete their degree (Tinto, 2012). Students may transfer to a four-year college for positive reasons, also without community college degree completion (Tinto, 1993). Other students may start at a four year college and reverse transfer to a community college for varying reasons or transfer to a four year

college from a community college and then reverse transfer credits to earn their associate degree (National Student Clearing House, 2017). Many students participating in community college coursework also have work, family, and other outside obligations (Rath, Rock, & Laferriere, 2013). These obligations could impede their course study time and attendance making retention and college completion difficult and sometimes impossible.

College readiness challenges college completion. The main challenge of college completion is linked to students being underprepared for college courses when enrolling in college (Rutschow & Schneider, 2011). Many students underprepared for college do not complete their college degree, minimizing available job opportunities (Bailey & Dynarski, 2011). College completion is important because the White House (2015), stated over half of the jobs in the United States required postsecondary education. Community colleges could be the catalyst for associate degree completion and the stepping stone to higher level degree completion to fulfill degree required jobs. Students transferring to four-year colleges with an associate degree were 77% more likely to earn a bachelor's degree within four years (Jenkins, 2014). Students prepared for college while in high school were more likely to stay on track to completing a bachelor's degree (Woods, Park, Hu, & Jones, 2018). Students with a bachelor's degree earned over one million dollars more in their lifetime (Baum & Payea, 2005). If the United States is not successful in graduating college students, then this shortage of an educated population will lead to unfilled jobs, outsourcing to other countries, and an economy losing its competitive ground.

Although McCormick and Johnson (2013) stated that success in high school is not an indicator of success in college, high school grade point average (GPA) could be a predictor of college performance (Belfield & Crosta, 2012). Many students with high school diplomas believed they could enter community college directly into their degree program, but many are deemed not college ready and were required to take developmental courses. Bettinger and Long (2006) questioned why these skills were not attained in high school. While enrollment in developmental education provided successful retention of students to the second year of college, it was not a successful stepping stone for college degree completion (Calcagno & Long, 2008). Effectiveness of developmental courses are in question (Scott-Clayton, 2012). With the high-stakes placement test, high cost and low success of developmental courses, policymakers in higher education need to look closely at the challenge of high school to college alignment as well as access and success of college students. Community college and high school partnerships could collaborate for improving alignment and developing college readiness and developmental education strategies.

College readiness and high school math. Students were placing into developmental math 30% higher than developmental English (U.S. Department of Education, 2017). Thirty-two states, including New Jersey, did not require a high school senior year math course (Zinth, 2012). States varied in the specific high school math courses required such as Algebra I and II, Geometry, Integrated Mathematics I, II, and III, Precalculus, Trigonometry, Probability & Statistics, and Calculus, as well as the number of years that math was required from two to four years (Reys et al., 2007). Students are required to take three years of math in New Jersey to meet the high school

math curriculum (Reys et al., 2007). With a lapse of a year or so in math and without early placement testing, students may lose math concepts before applying to college and taking the placement test, which could send them into developmental math courses in college. Taking a math course in the senior year of high school helped students to retain math concepts that they may have lost with a lapse in time and exposure to math (An, 2013). According to Zinth (2012), states are increasing math requirements and moving toward requiring a math course every year in high school to ensure students are engaged in math throughout high school. If the high school offered CEP math as an option, then students could retain math concepts and earn college credit upon successful completion.

If students did not take a high school senior math course, then they may not retain math concepts between the end of their junior year of high school and the summer or fall prior to beginning college when they take the college placement test. This could be a full year and a half without a math course in some cases. Lacking current math concepts and skills, students may not successfully place into college level math, requiring costly and time consuming developmental math courses prior to beginning their college coursework. Students participating in a CEP math course enter New Jersey community colleges as college ready and save time and money by eliminating the need for developmental math courses. Taking a CEP course in math or English while in high school could be a successful strategy for students to retain skills learned in high school and remain college ready in math or English.

College readiness and high school English. Woods et al. (2018) reported that there is a misalignment between important skills needed in high school and those needed in college. High school English courses traditionally emphasized narrative analysis of English and British literature (McCormick et al., 2013). This approach tends to weaken secondary students' ability to critically read and write about nonfiction (McCormick et al., 2013). According to Carillo (2016), high school students were not learning to critically read and integrate sources into their writing. Writing skills are a strong predictor of students' college success (Woods et al., 2018). Strong English skills in reading and writing prepared students for college-level work (McCormick et al., 2013). These English skills are needed in college courses requiring college level reading and writing assignments. Students earned college credits and avoided developmental English after successfully completing CEP English.

College readiness strategies. Implementing college readiness strategies could help students continue the trajectory from high school graduation to college completion (McCormick & Johnson, 2013). Strategies developed with the Race to the Top initiative supported innovative reform for college readiness (An, 2013). New models at high schools and colleges are being developed, implemented, and evaluated to improve student outcomes in college readiness (Lipka, 2014). Assuring a smooth transition from high school to community college may increase college persistence and completion. According to Appleby (2014), students new to college were better prepared if the differences between high school and college were brought to their attention, information was shared to help them identify the knowledge, skills, and attitudes needed to be

successful in college, and they were engaged in college assignments and activities. Tinto (2012), stated that socially engaged students were retained.

Successful secondary and postsecondary partnerships were supported by administration (Sanders, 2006). Mattessich et al. (2001), argued that these collaborative partnerships were not static. Concurrent enrollment involved alignment of secondary and postsecondary education and provided a means for college readiness, especially in math (An, 2013). Concurrent enrollment created a smoother transition to college for high school students, rather than the traditional route of graduating high school without college credits and taking the college placement exam prior to college admission. High school students taking CEP courses would get a taste of the pedagogical differences between high school and college curriculum and become accustomed to a college course syllabus and college level student responsibility for their work assignments. Students become aware that college professors would not remind them of course assignments and they relied on the course syllabus and learning outside of the classroom, often using resources such as the college library or writing center to complete their college coursework (Appleby, 2014). Strengthening connections between secondary and postsecondary education provided students with opportunities for college readiness and success.

Strategies such as collaborations between high school and college, bridge and transition programs, and CEP were aimed at increasing college readiness. Students who were prepared for college courses when enrolling in college were more likely to persist (Tinto, 2008). College completers can fulfill those jobs requiring postsecondary education in the United States (The White House, 2015). My study of CEP offered by

New Jersey community colleges addressed if these partnerships between New Jersey community colleges and high schools facilitated collaboration and student engagement encouraging successful college readiness.

College Placement Testing

College readiness and college entrance placement testing were concepts that many high school students were unaware of prior to the college admission process, but have high-stakes impact on those students who do not reach the cut score and were deemed not college ready (Scott-Clayton, 2012). Reduced retention of math skills without exposure to math for a period of time impacted student math placement (Fay, Bickerstaff, & Hondara, 2013). McCormick et al. (2013) stated that lack of critical reading and writing skills impacted English placement. According to Fay et al. (2013), students reported that they would have approached placement testing differently if they understood the consequences of poor performance. Maintaining college readiness in high school with the connection between high school and community colleges could help students understand college admissions criteria and enter college directly into their college degree program.

College readiness assessments. Community colleges espouse to be open access, but the gatekeeper placement test stands in the way of access to college level coursework for many underprepared students (Scott-Clayton, 2012). Many students take the SAT (Scholastic Assessment Test) produced by the College Board or the ACT (American College Testing) produced by ACT, Inc. for a comparative edge on college admission applications or to provide exemption from college placement testing if they reach the cut score required by the educational institution they plan to attend (Federal Student Aid: Office of the U.S. Department of Education, n.d). Students who take the SAT, the ACT,

or another qualified standardized state high school exam, and achieved a benchmark score, were typically exempt from college placement exams (Scott-Clayton, 2012). Adams (2015) reported that 1.92 million graduating high school students took the ACT in 2015 and 1.7 million graduates took the SAT. While the high school graduation rates have increased as well as the number of students taking one or both of these tests, performance remains stagnant with a little over 40% testing on track for college level work (Adams, 2015). The remainder of students, either not taking the ACT or the SAT, or placing below the benchmark score for college readiness on the ACT or the SAT, are required by most two-year colleges and some four-year colleges, to take the college placement exam (College Board, 2017).

Many students took the SAT or the ACT assessment prior to college admission applications (Federal Student Aid: Office of the U.S. Department of Education, n.d). Without these assessments and an unsuccessful placement test, most students in New Jersey are required to take developmental courses in college before their college classes. An important note about the SAT and the ACT testing is that while overall the success rate for college level placement is a little over 40%, inequities exist on who is placing college ready (Adams, 2015). According to Adams (2015), over 61% of Asians and almost 53% of Whites were deemed college ready, but only about 16% of Blacks, 22% of Hispanics, and 33% of Native Americans taking the SAT were college ready.

Heimbach (2015) reported that in the 2014-2015 school year twenty states offered the ACT free to 11th grade students and three states offered the SAT free to all 11th grade students. This statewide strategy was implemented encouraging students to consider college and eliminated the placement exam as part of the college application process if

they successfully placed as college ready (Heimbach, 2015). The trend of states contracting with the companies to offer the ACT and the SAT at no cost to students in 11th grade may help the inequities in access to the tests as well as the timing of assessing math concepts.

Most states were not offering free access to the SAT or the ACT, but under-resourced and underprepared students may need support to access these tests. Khan Academy, a non-profit organization providing free educational materials, and the College Board have teamed up offering free official SAT practice tests (Khan Academy, 2018), and offered scholarships for up to two tests for students with financial need. For those students without a qualifying SAT or ACT score, the Accuplacer placement test was used in New Jersey community colleges, but the New Jersey Council of County Colleges (2017, October 2) recently provided *A Statement of Guiding Principles* for the use of multiple measures when considering placement of students in math and English. The College Board (2017) provided sample test questions and a free web-based study app for Accuplacer preparation, but not all students take advantage of these resources. While test preparation was available for the SAT and the ACT, no standard test preparation is available for all college placement exams (Scott-Clayton, 2012). Students could benefit from development of formal test preparation for all college placement exams.

The Accuplacer placement testing manual stated that the user is responsible to evaluate evidence to ensure the exam is appropriate for the intended decisions of the user (Scott-Clayton, 2012). The College Board (2017), as the producer of the Accuplacer exam, stated that colleges should research and interpret the scores and the intended use of the exam to indicate successful placement as well as the effectiveness of developmental

courses. In other words, colleges using Accuplacer for developmental and college level placement should review the placement results to ensure accuracy and evaluate the benefits of developmental courses for students. Successful placement accuracy rates were an issue using placement testing alone (Belfield & Crosta, 2012). According to Scott-Clayton (2012), placement testing accuracy rates were between 60% and 80%. Between 20% and 40% of students may be inaccurately placed into developmental education at a high cost emotionally, academically, and financially. Students not directed into developmental education may possibly fail a course if incorrectly placed into a higher-level course. Students needed to be prepared to perform well on the placement test for a more accurate placement of their math and English skills (Fay et al., 2013). One quarter of students were deemed inaccurately placed into developmental education and could have succeeded in college level course at one urban community college system (Scott-Clayton, 2012).

Placement test preparation. According to Fay et al. (2013), many students did not prepare for placement testing due to misperceptions about the assessment, lack of preparation available or accessed, and lack of confidence. Students thought they were not supposed to prepare for the college placement exam as it is touted to be only a vehicle to determine where a student placed in math and English (Scott-Clayton, 2012). Since community colleges are open access there is no college admission exam, but the college placement test could hold students back from college level coursework until successful placement or completion of developmental courses. High school transition courses may provide students with clear information about placement tests and what they can mean for

their college trajectory (Barnett et al., 2013). High school and college collaborations were important for clear communication and student awareness of placement test outcomes.

In California, the Early Assessment Program (EAP) embedded college readiness testing into the California Standards Test given to students at the end of their junior year (Barnett et al., 2013). According to Adams (2015), this strategy can offer students, parents, and high schools as well as college personnel an advanced opportunity to address college readiness before students graduate from high school. Testing students early gives students practice, preparation for understanding the placement test, and knowledge of the consequences of their score as well as an opportunity to retake the placement test before starting college.

Multiple measures can increase accuracy rates that determine college level or developmental level course placements (Noble, Schiel & Sawyer, 2004). Multiple measures mean that other indicators such as student high school GPA are used to decide college placement in math and English (Belfield & Crosta, 2012). There is a push for multiple measures due to the dismal results of developmental courses and the high stakes placement testing (Center for Community College Student Engagement, 2016). According to Belfield and Crosta (2012), evaluation of a student's high school transcript could complement or substitute college placement testing, resulting in faster and more successful progression through college. High school GPA is a good predictor of college performance and could justify waiving placement testing for students with a C+ average on their high school transcript (Belfield & Crosta, 2012). If community colleges continue to rely solely on placement testing, enhanced communication about consequences of test

performance and proactive test preparation are essential for improved student placement accuracy (Fay et al., 2013).

Developmental Education

Nationally over 50% of community college students place into developmental courses (National Conference of State Legislatures, 2015). The Governor's Council on Higher Education (2015), stated that 70% of New Jersey community college students entered into community college in at least one developmental course. New Jersey community colleges rely on Accuplacer cut scores for initial assessment and student placement (New Jersey Council of County Colleges, 2017b). The recent New Jersey Council of County Colleges' *A Statement of Guiding Principles* offers suggestions of using multiple measures such as high school GPA or college preparatory curriculum to determine student placement in math and English (New Jersey Council of County Colleges, 2017, October 2). Students who do not make the cut score are directed to developmental courses, which can derail their progress in college and use up financial aid resources. Students who are college ready avoided developmental courses. Avoiding developmental education allows community college students to enter their degree program and progress faster towards graduation, if that is their intention. The cost of developmental courses is not only financial, but also the opportunity cost of lost time, wages, and stunted ego for students, which can delay or derail college completion (Scott-Clayton, 2012).

Uncertain or inaccurate placement testing as well as lack of alignment between secondary and postsecondary education could be key factors addressing why students are placing into developmental courses. Developmental courses reteach concepts not initially

learned or retained from high school and middle school (Jaggars & Stacey, 2014). Ashford (2011) reports that developmental courses are designed to prepare students for college courses, however they often become a roadblock to college coursework for many students.

Developmental education history. Developmental education began in the 1960s to allow access to higher education for underprepared students, but this goal is shifting towards improving outcomes of underprepared students (Center for Community College Student Engagement, 2016). Students are directed to developmental courses based on their individual placement score. With an accuracy rate of placement between 60 and 80% (Scott-Clayton, 2012), the error of placing students in developmental courses instead of directly into college level coursework can cost a student their education and lost earning potential, if they do not successfully complete their developmental course sequence to continue through their college degree program. Higher education administration needs to be cognizant of the decisions that are made that affect students' lives and livelihoods as strategies are implemented for student college readiness and developmental education.

More than half of community college students in the United States enter college in developmental courses designed for students to acquire skills needed for college level coursework (National Conference of State Legislatures, 2015). Nationally developmental education comes at a cost of $7 billion annually with limited success (Scott-Clayton, Crosta & Belfield, 2014). Credits earned for developmental courses do not count towards students' college degree, but students are required to pay tuition or use financial aid for these courses (Scott-Clayton, 2012). Students can exhaust their financial aid or other

financial resources on developmental education courses leaving little to no financial means to complete college level courses. Developmental education marginalizes and stigmatizes students in standalone classes disconnected from their degree program curriculum (Tinto, 2008).

Developmental education math. According to Bahr (2011), students entering college in developmental courses, especially in math, rarely enter college level coursework. Students who place into developmental math are only 20% likely to complete a college math course within three years of college admissions (Bailey et al., 2010). Attrition is greatest at lower level developmental courses (Bahr, 2011). The developmental course sequence may require students to take multiple levels, especially in math, and successfully complete each one prior to taking a college level math course. According to Bonham and Boylan (2011), these high enrollment and high risk developmental courses are only about 50% successful, resulting in only about 12% of students placing into a three-course developmental math sequence completing their developmental math courses and entering college level math. That leaves 88% of students entering college into developmental math who are unable to reach a college math course required for their degree program.

Accelerated developmental math course sequences minimizes the exit points of college and limits the time and money students spend on developmental education (Jaggars & Stacey, 2014). Burris, Heubert, and Levin (2006) state that implementing advanced math courses at the middle school in mixed level classrooms may alleviate some of the lack of higher-level math skills in high school. Obtaining higher-level math skills in high school may improve college readiness giving students a better chance for

college success. Changes in math pedagogy prior to college may address the high number of students entering into developmental math in college (Stone, Alfeld & Pearson, 2008). According to Barnett et al. (2013), math transition courses provide a more integrated and holistic approach that ties concepts together for active learning. Often these courses offer activities that build conceptual understanding with fewer topics addressed in greater depth for better understanding of math concepts (Barnett et al., 2013).

Stone et al. (2008) says that contextualizing math in career and technical education (CTE) courses can make the abstract math problems become more explicit rather than implicit. Math concepts may be difficult to grasp without any applied knowledge to draw from. Students in career and technical education certificates and degrees need these math skills to be successful in their programs. Students previously with weak math skills performed better on math tests after integrating math lessons in CTE courses (Stone et al., 2008). This strategy may also provide a greater opportunity for successful performance of students on college placement testing.

Students may be able to meet their college level math requirement in CTE majors by taking CEP math courses that are not primarily algebra based (Scott-Clayton, 2012). The Center for Community College Student Engagement (2016) reports that CTE majors can take courses, such as Statistics or Quantitative Reasoning, to align with their program of study. Introductory Statistics and mathematical discovery courses are popular for students placing directly into college level math or after successful completion of developmental math courses (Scott-Clayton, 2012). CEP math courses require students to place into college level math, achieving high school and college math credit upon

successful completion, and allowing students to continue their high school to college math progression.

Several national institutions such as the University of Texas at Austin, Charles A. Dana Center (2018) have worked collaboratively and publicized strategies for the gap in math college readiness. The Dana Center Mathematics Pathways (DCMP) seeks to eliminate barriers and structures that deter success by making available "the right math for the right student at the right time" (The University of Texas at Austin, Charles A. Dana Center, 2018). Higher education institutes using the DCMP model can follow the Institutional Implementation Guide to offer college level math courses with co-requisites or a math sequence model over one year that are appropriate to the students' program of study. The Carnegie Math Pathways (CMP, formally known as the Community College Pathways (CCP) provides two alternatives to developmental math, Statway® and Quantway®, giving students the opportunity to take college math courses with support (Carnegie Foundation, 2018). Statway® provides an academic year long problem-based instruction while Quantway® has two options, one as a non-credit course to prepare students for college math coursework and the other as a credit course in Quantitative Reasoning (Carnegie Foundation, 2018). While these are national organizations providing great data on the success of their pathways programs, they are not nearly as universal as developmental courses and change is slow. Institutional commitment is required to develop and manage these initiatives to provide students opportunities for college math success.

Developmental education English. Students place into developmental education English courses about 28% of the time compared to math developmental education courses, where students place about 60% of the time (Schak et al., 2017). Much is written about developmental education math due to the high percentage of students placing into those courses, but not much is written about developmental education English. Reading and writing competency is important for college students as those skills carry into other college course assignments. Successful completion of the students' high school senior year English course did not exempt students from placing into developmental English (Hoyt & Sorensen, 2001). According to Perin, Keselman, and Monopoli (2003), "Informational writing presents a challenge for large numbers of students who enter higher education in the United States with inadequate literacy preparation" (p. 19). Writing skills are especially important for academic learning as well as employment (Perin et al., 2003).

Not unlike math, Hassel and Giordano (2015) presented similar strategies such as using multiple measures for student placement, updating high school English curriculum to include transition strategies, acceleration options in college to shorten the path from developmental education English to college level English, and continuing to provide developmental education courses for those students who need access to higher education. The use of multiple measures is a strategy to improve placement of students in developmental or college level courses (Center for Community College Student Engagement, 2016). According to Kane, Tyson, and Zaleski (2009), incorporating materials that complement the teacher and students' abilities kept the students' attention and creativity in developmental education English classroom. The goal was to move

students from non-credit bearing developmental courses into credit bearing college level courses as soon as possible (Kane et al., 2009). Accelerating or eliminating developmental education may not be appropriate for underprepared students needing additional supports and wishing to gain access into higher education (Hassel & Giordano, 2015).

Developmental education strategies. Avoiding developmental education by preparing students in high school to be college ready is the best strategy to improve students' college achievement (An, 2013). Prepared high school students stay on track to successfully complete their bachelor's degree (Woods et al., 2018). The majority of students enter community college in developmental education math and do not successfully complete the sequence of courses to enroll in a college level math (Bahr, 2011). Bahr (2011) informed that this is true to a lesser extent for students who enter community college in developmental education English courses. Strategies such as accelerating student progression through developmental courses, contextualizing basic skills, and enhancing supports to students in developmental courses helped improve student success, but additional research is needed (Rutschow & Schneider, 2011). Acceleration of developmental education courses series attempted to shorten the path to college courses and increase successful college completion. Students successfully completing a developmental education course on the first attempt were more likely to take the next step in the series of developmental education or into their college-level course (Bahr, 2011).

Lack of high school to college alignment could be a key factor in students placing into developmental education courses (An, 2013). The disconnect between K-12 and

higher education created a vague definition of college readiness, making it difficult to determine which students were prepared to be successful in college (Woods et al., 2018). Partnerships between high schools and community colleges provided collaboration to develop alignment strategies and define college readiness for students to be successful in college.

According to Shields (2005), using the best faculty in teaching developmental education may be the most important strategy for students who placed into developmental education as ineffective teaching perpetuates deficiencies in academic and study skills. Making connections between fiction, nonfiction, and film based on faculty choices reflective of their background formed tighter bonds between faculty and students for better delivery of the material (Kane et al., 2009). Students who were college ready in high school avoided developmental education. Collaborative partnerships between colleges and high schools, including those offering CEP, assisted in connecting high school to college for student success.

Case Study Methodology

Linking collaboration theory with institutional the framework for student success and student engagement provided a clearer picture of CEP high school and college partnerships. Collaboration theory, the theory of student engagement, and the conceptual framework of college readiness aligned my research questions with empirical evidence and my methodological structure completing my case study of collaborative New Jersey community college and high school partnerships that offer CEP. Backed by this literature review, stating the urgency of collaboratively finding solutions that connect high school and college promoting college readiness, my case study revealed actual partnerships

created and assessed their purpose and their cohesion or challenges. I also learned why specific CEP courses were offered, if these partnerships were created to address college readiness, address student engagement, and if collaborative partnerships facilitated offering CEP.

My case study methodology provided the framework to study CEP partnerships in New Jersey. The following methodology section provided information about how the research was conducted, my specific research questions, purpose statement, theoretical propositions, unit of analysis, me as the researcher, the setting, data collection and analysis, as well as how I triangulated my data to provide a rigorous study and report on my findings. According to Yin (2014), providing a sound research design and methods allowed me to collect and analyze data fairly. My goal in developing my methodology section was to let the empirical literature review ground my study while receiving authentic experiences of participants that informed my research.

Chapter 3

Methodology

My qualitative, multiple case study research of CEP partnerships between New Jersey community colleges and high schools answered research questions about how and why these partnerships took place and how the CEP course selection is decided. Qualitative strategy of inquiry follows a systematic approach for the researcher to learn by direct exposure to a natural setting (Rossman & Rallis, 2012). Case studies are the best research method to answer how and why questions focused on current conditions (Yin, 2014). By linking CEP to student engagement and collaboration theories, I investigated how and why these partnerships were formed and if they addressed high school to college alignment for students' college readiness. Alignment from high school to college could help student readiness placing into their college program of study, avoiding costly developmental courses (An, 2013), depending on the CEP course completed.

My case study sought to understand the connection between student engagement and collaboration theories and the concept of college readiness from the perspective of the participants, college and high school administrators and faculty, providing further understanding of the CEP partnership phenomenon with New Jersey community colleges and high schools. A multiple case study allowed data discovery from multiple community college and high school partnerships in New Jersey offering comprehensive CEP compared and contrasted (Yin, 2014). My proposition that New Jersey community colleges and high schools offering CEP collaborate because they wanted to give students

the opportunity to experience college coursework, accumulate college credits, and maintain college readiness for success in college.

This methodology section provided the details of my research questions and research design for conducting my study. A precise research design provided the plan and procedures for conducting research and analyzing the data producing an interpretation of the findings (Creswell, 2014). According to Booth, Colomb, and Williams (2008), even with a plan I could find new discoveries that required revisions along the way. When conducting data analysis new discoveries about my research questions became apparent and were discussed.

Using the literature reviewed prior knowledge so I could generalize data findings to my theoretical propositions and rival explanations of student engagement and collaborations. Yin (2014) described a case study as a linear, but iterative process where the researcher analytically generalized findings to theory. This methodology section described the road map for my study and guided my research as I prepared, collected, analyzed, and reported on the data. As a qualitative case study, I sought to explore community college and high school partnerships and CEP courses taught at a New Jersey high school where students dually earned high school and college credit for the same course.

I contacted the New Jersey community colleges that offered CEP to advocate for participation in my research. Once I received a positive response from a college, then I sent an e-mail to introduce myself as a doctoral student conducting dissertation research on CEP partnerships that offered comprehensive programs including math and English, and requested additional contact information about their partners so I could reach out to

the high schools for participation. I expressed my enthusiasm in hearing their perspectives on their partnerships and included a synopsis of what information I wanted to gather as well as what my timeline was so they could make an informed decision about their participation and time commitment. In my e-mail I explained that I was not using their identity and that the data is used by me for my dissertation only.

In this chapter, I began with my purpose statement followed by my succinct research questions, propositions and rival explanations, and then described my research design. My unit of analysis, CEP partnerships, focused on the components of CEP partnerships that I studied, and the limitations section delineated what I did not study. My role as the researcher was explained, the setting was illustrated, and participants, participant confidentiality, and sampling were introduced. Additional sections described triangulation, instrumentation, protocols, data collection, data analysis, and how validity and ethical issues were considered and addressed. Institutional Review Board (IRB) approval was also discussed. My findings conclusion closed out my methodology section of my dissertation. Beginning with my purpose statement, research question, and research design, and ending with a summary of generalizing my findings to theory, provided the methodology plan of my case study that helped answer my research questions.

Purpose Statement

According to Creswell (2014), providing a clear purpose statement identified the intent of the study. The purpose of my case study research explored to understand the collaboration between New Jersey community colleges and high schools offering the opportunity for high school students to participate in CEP and how the decision was made to offer specific courses. Yin (2014) stated that the purpose of case study research

examines a real-world case in-depth. I investigated how and why these partnerships were created, how collaboration and student engagement theory facilitated these partnerships, and how college readiness was considered in the decision. Miles and Huberman (1994), stated that propositions provide a guide for data collection and analysis to generalize to theory.

Research Questions, Propositions, and Rival Explanations

My research questions focused my study of CEP partnerships between New Jersey community colleges and high schools to understand if student engagement and collaboration informed these partnerships, and how CEP courses were selected. Carefully crafted research questions provided the focus of my study to avoiding the collection of irrelevant data (Booth et al., 2008). According to Yin (2014), theoretical propositions and rival explanations situate the case study research to generalize findings to theory. Here are my research questions, propositions, and rival explanations:

1. Why do New Jersey community colleges and high schools collaborate to offer CEP courses?

   Proposition 1: New Jersey community colleges and high schools collaborate to offer CEP because they want to give students the opportunity to experience college coursework, accumulate college credits, and maintain college readiness to be successful in college.

   Rival Explanation 1: New Jersey community colleges and high schools offer CEP to promote another course selection option for eligible high school students and to increase community college enrollments.

   1. a. How does student engagement inform this decision?

Proposition 1. a.: Community colleges and high schools in New Jersey create relationships that align high school to college by providing a structured CEP course to support student engagement with their peers.

Rival Explanation 1. a.: Student engagement is not considered in offering CEP.

1. b. How do collaborative partnerships facilitate offering CEP?

   Proposition 1. b.: Collaboration factors such as a favorable climate, shared vision, and mutual respect facilitate CEP relationships with prepared written agreements for the common goal of aligning high school and college.

   Rival Explanation 1. b.: Collaborative partnerships do not facilitate this relationship and higher-level administrative directives require that CEP courses are offered.

2. How do New Jersey community college and high school administrators and faculty decide on the CEP course selection?

   Proposition 2: New Jersey community college and high school administrators and faculty collaborate to decide which courses align to offer opportunities for eligible students.

   Rival Explanation 2: New Jersey community colleges and high schools offer CEP courses based on previous experience with other CEP courses and established CEP procedures.

Research Design

I selected the qualitative strategy of inquiry and case study research design methodology and learned more about CEP partnerships in New Jersey directly from the participants. Rossman and Rallis (2012) stated that the ultimate purpose of qualitative research is learning. Qualitative multiple case study research design allowed me to learn in the field why New Jersey community college and high school partnerships were established and how selection of offering CEP courses was made. I used student engagement and collaboration theory to craft my interview questions for college and high school administrators and faculty discovering if these theories were overtly or covertly considered in the decision to offer CEP and how the decision was made about specific CEP courses. I also sought to discover deeper meaning of the participants' understanding of the purpose of these partnerships. Qualitative research allowed me to explore depth rather than breadth of the phenomenon describing and interpreting the data (Rossman & Rallis, 2012).

My research design guided the effective preparation of a multiple case study research (Yin, 2014). Multiple case study required me, using my skills and values, to develop theory, select relevant multiple cases, design data collection protocols, conduct each case study, write individual reports, draw cross-case conclusions, review implications connected to propositions, and write the cross-case findings based on evidence (Yin, 2014). My research design incorporated a multiple case study capturing the unique CEP courses offered with New Jersey community college and high school partnerships. The New Jersey Council of County Colleges provides statewide leadership through coordinated autonomy (Nespoli, 2013), but New Jersey does not have a single

state higher education system, which allowed each community college to develop their own criteria and protocol for offering CEP, while incorporating state required course standards.

Preparing a multiple case study increased the rigor of my study as I compared and contrasted each individual case and generalized to my theories of student engagement and collaboration as they pertained to college readiness. According to Yin (2014), a multiple case study allowed for replication predicting similar or contradictory findings. Each New Jersey community college and high school partnership were studied separately and then in aggregate determining generalizability to my propositions. Generalizing to theory and reporting findings on each individual case and then on multiple cases as a whole provided substantial support for case study research (Yin, 2014).

Unit of Analysis

My unit of analysis was the concurrent enrollment program. As a multiple case study of CEP offered in New Jersey in partnership with community colleges and high schools, the many forms of data collection and analysis focused on this single unit of analysis. I used multiple case study because I looked at the similarities and differences between the programs and courses offered by each college and high school partnership discovering how and why these programs were offered individually and as a whole in New Jersey. According to Yin (2014), it is important to clarify the study by identifying the unit of analysis and distinguishing what is included and excluded, as well as the time boundaries to establish the beginning and end of the study. Focusing on the phenomenon of New Jersey community college and high school partnerships offering comprehensive CEP and their course selections allowed me to study collaboration, student engagement,

and college readiness from the participants' perspectives. I conducted my research of CEP partnerships in 2019.

Limitations

New Jersey community colleges offering comprehensive CEP including math and English were selected and the CEP partnerships and courses offered were the focus of my research. I obtained the perspectives of community college and high school administrators and faculty offering CEP seeing if these partnerships were developed to address college readiness and considered student engagement and collaboration in the process. The data was not collected or analyzed from the students' perspectives or any other perspectives. This research project also did not produce causal results for students taking CEP. Another possible study could collect quantitative data to understand the number of CEP student participants and their trajectory to college and college completion. My focus on CEP limited my study to collecting and analyzing multiple forms of data that answered my research questions regarding how and why New Jersey community college and high school partnerships offer CEP and the CEP courses selected.

Researcher's Role

I was the main instrument in qualitative research (Miles & Huberman, 1994). According to Yin (2014), the case study researcher strives to make a significant contribution of knowledge or practice to share with others. A qualitative research approach with a constructivist worldview seeks to establish the meaning of the phenomenon from the participants' views (Creswell, 2014). As a community college administrator my epistemology is constructivism and I identify with the relativist theoretical perspective. According to Creswell (2014), constructivism posits that people

construct their understanding of the world based on their own experiences and reflection of those experiences. Relativist perspectives recognize multiple realities to capture the perspectives of participants (Creswell, 2014). I understood that the participants' perspectives were uniquely their own. I reflected on my data collection to reveal their perspectives.

My research focused on New Jersey community colleges that offered CEP, partnering with their participating high schools and heard directly from the college and high school administrators and faculty, to understand why these relationships were developed, and which CEP courses were offered. I learned from the participants' point of view and their understanding of the phenomenon. I kept my bias at bay by allowing the qualitative case study process to guide the research and analysis of the findings. As a community college administrator experienced in working with high schools on CEP and studying college readiness of students, I understood the importance of CEP partnerships. I bracketed my opinions and was open to the experiences of my participants by following my protocols and letting the data reveal answers to my research questions. According to Creswell (2014), it is important to identify the values and biases that I had about the participants and the research process.

The topic of CEP is important to me because as a college administrator I want students to successfully complete their college program of study. When students are not required to take a fourth year of math in New Jersey high schools and the students come to an open access community college beginning their higher education experience, the majority of students are not prepared for college level courses and placed into the developmental education. Many students, like my daughter, started at the lowest level of

developmental math, failed several times, and repeated the courses before either giving up or persisting to complete their developmental math course series and their college degree program.

Entering community college in developmental education after obtaining a high school diploma is frustrating for many students. Community colleges that partner with area high schools aligning courses could alleviate this frustration for students who successfully completed a CEP course while in high school. Successful completers enter their community college as college ready, depending on the CEP course successfully completed and the college degree program selected. Depending on their degree selection additional math courses could be required, but these students will be ready for college math and may have retained math skills after completing a CEP math course prior to entering college without lapse in time. My proposition was that students who successfully completed CEP math and English courses maintained college readiness and avoided developmental education courses upon admission to a New Jersey community college.

I triangulated my data collection and analysis by using multiple sources of evidence guiding the data collection, analysis, and findings (Yin, 2014). Program coursework and resources introduced in the Rowan University Community College Leadership Institute program prepared me to complete this research, understanding my bias, and letting the data speak for itself. Bracketing, like the mathematical term, allowed the focus to be on the phenomenon within the brackets (Gearing, 2004). I used my research questions as a guide to data collection, analysis, and reporting, keeping the participants' perspectives in the forefront. According to Miles and Huberman (1994), researchers gain knowledge of explicit and implicit rules by suspending their

preconceived notions, understanding participants' awareness of the topic, and maintaining the participants' original themes. My chairperson and dissertation committee ensured that my research was appropriate, rigorous, and valid.

Setting

New Jersey had 19 community colleges offering individual programs and courses selected locally based on their community needs. These 19 community colleges were situated within designated counties that served all 21 counties in the state (New Jersey Council of County Colleges, 2017a). Table 1 below identified all 19 community colleges and the 21 counties that they represented in the state of New Jersey. According to Rowan College of South Jersey (2020), two community colleges of Gloucester and Cumberland consolidated into one regional community college. That changed the number of community colleges to 18 in New Jersey.

Table 1

New Jersey Community Colleges and the Counties They Served

	New Jersey community colleges	Counties
1	Atlantic Cape Community College	Atlantic & Cape May
2	Bergen Community College	Bergen
3	Brookdale Community College	Monmouth
4	Rowan College at Burlington County	Burlington
5	Camden County College	Camden
6	Cumberland County College	Cumberland
7	Essex County College	Essex
8	Rowan College at Gloucester	Gloucester
9	Hudson County Community College	Hudson

Table 1 (continued)

	New Jersey community colleges	Counties
10	Mercer County Community College	Mercer
11	Middlesex County College	Middlesex
12	County College of Morris	Morris
13	Ocean County College	Ocean
14	Passaic County Community College	Passaic
15	Raritan Valley Community College	Hunterdon & Somerset
16	Salem Community College	Salem
17	Sussex County Community College	Sussex
18	Union County College	Union
19	Warren County Community College	Warren

In 1994 the New Jersey Higher Education Restructuring Act deregulated the New Jersey higher education system giving local authority to community college boards but maintained coordination through the establishment of the New Jersey Council of County Colleges (NJCCC), which continues today (Nespoli, 2013). Due to the autonomy of each community college determining the programs they offered, not all community colleges in New Jersey offered CEP. Selecting only those New Jersey community colleges offering comprehensive CEP including math and English allowed me to replicate each case into a multiple case study learning from those New Jersey community colleges offering CEP and how these partnerships considered college readiness.

Participants

Because my unit of measure is CEP, my participants were those administrators and faculty from New Jersey community colleges and high schools directly involved in the CEP partnerships that agreed to participate. The participants allowed me to discover how and why these CEP agreements were created and the selection of CEP courses.

I investigated each of the 19 community colleges in New Jersey and requested participation from those community colleges offering comprehensive CEP including math and English with a partner high school. Four community colleges in New Jersey that responded to my request met the criteria of offering comprehensive CEP including math and English and agreed to participate. Table 2 displays the results of my investigation to request participation in my study.

Table 2

Participation Results for my Study

Participation decision	Number of colleges
Offers CEP math and English and participated	4
Offers CEP math and English, but cannot participate	1
Does not meet criteria offering CEP math and English	4
No response	10
Total	19

My participants allowed me to identify factors in their partnerships that helped answer my research questions. My research questions were addressed from the administrator and

faculty perspectives at New Jersey community colleges and high school partnerships offering CEP to understand how and why these programs existed and if student engagement and collaboration facilitated college readiness in these relationships. I understood that the college agreement to participate did not guarantee participation from all constituents that I wanted to survey and interview, such as college and high school administrators and faculty involved in CEP at each location, but all participants did contribute to my study.

Participant confidentiality. Maintaining participant confidentiality in case study research is crucial (Yin, 2014). All participants completed an informed consent form (Appendix A) that explained to participants that I maintained confidentiality to the best of my ability by not using personal identification or location. I was careful to not be specific about college location, demographics, or other details that could breach that confidentiality. Since there were only a few college and high school partnerships offering comprehensive CEP including math and English in New Jersey, it is possible with some research, to identify administrators, faculty, and high school partners, however, I did not use any identifiers in quotes or identifying descriptions in my dissertation.

Participant confidentiality is the norm in qualitative research partially because the researcher or participant cannot know how information could be used or if the data could be detrimental to the participant (Rossman & Rallis, 2012). With this in mind, I used a coding system for participants to mask names and identifying information. I was responsible to maintain confidentiality with a plan in place on how confidentiality was maintained that was presented to the Institutional Review Board (IRB) for data collection approval (Yin, 2014).

Purposeful sampling. Administrators and faculty were identified and selected from those New Jersey community colleges that offered comprehensive CEP including math and English. Many New Jersey community colleges offered concurrent enrollment, but few offered comprehensive CEP including math and English. This purposeful sampling in my case study design provided information only from those participants that were directly involved in those CEP partnerships. Purposeful sampling is the selection of specific participants for a specific reason, as opposed to random sampling typically used in quantitative research (Rossman & Rallis, 2012). My participant purposeful sampling collection only included those partnerships that met the criteria of offering comprehensive CEP including math and English in New Jersey and agreed to participate.

Triangulation

According to Miles and Huberman (1994), triangulating your data provides dependable findings. Triangulating my data added depth and rigor to my study. Multiple data sources consisted of using an existing instrument to survey the college and high school administration and faculty participants, reviewing documentation, and interviewing participants. I sought to understand if collaboration and student engagement addressed college readiness by using similar interview protocol questions (Appendix B, C) where CEP collaborations took place. Multiple forms of information from diverse participants triangulated the data collection and analysis (Miles & Huberman, 1994). Triangulating data attempts to corroborate and support evidence and strengthen the construct validity of a case study (Yin, 2014). I understood that alternative explanations could also develop from the data (Yin, 2014). According to Miles and Huberman (1994), rival explanations provided insight into emerging conclusions.

My research was performed as a multiple case study research project reviewing individual cases and then the elements of the whole case tying the data together. Conducting a multiple case study provided multiple sources to triangulate data collection and analysis (Yin, 2014). I explored collaboration theory and student engagement theory and looked at the CEP data from my conceptual theory of college readiness. According to Yin (2014), multiple sources informed the theories and concepts by providing evidence that is more convincing with similar responses.

Instrumentation

There were several research instruments used in collecting and analyzing data that explored my research questions pertaining to CEP in New Jersey. The instrument used to collect documentation was my documentation collection protocol (Appendix D). I requested information about the CEP partnerships along with documentation that was reviewed to understand how the partnerships were depicted in their literature.

Another instrument was an existing defined survey through The Wilder Collaboration Factors Inventory (Appendix E) available on the Internet to individuals and groups. I created groups for the survey and compiled data from each partnership. CEP groups consisted of each community college administrator and faculty as well as each high school administrator and teacher involved in the partnership for a total of four participants from each partnership. I was able to review the collaboration survey results to corroborate or refute the interview and documentation data. The survey provided information about the factors involved and the health of the collaboration between the college and high school. The health of collaborations can make the difference between a successful ongoing relationship and failed collaborations (Mattessich et al., 2001). The

community college and high school collaboration should be functioning well in order to provide optimum opportunities for students participating in CEP.

Comprehensive interviews were conducted after the survey instrument to understand the perspectives of college and high school administration and faculty offering CEP to high school students. I clearly described the interview process and the participant had the opportunity at any time to decide not to participate in my research. All participants agreed and continued through the end of the survey and interview protocols. My interview protocol provided open ended questions for a responsive interview allowing for follow up questions. No follow up questions were needed. The informed consent forms were kept confidentially with my research files in a locked secure location in my home office.

Survey protocol. The initial preparation to do research after IRB approval was followed by an e-mail introducing The Wilder Collaboration Factors Inventory investigating collaboration factors and requested that each participant from each college and high school partnership voluntarily complete the survey in a timely manner. This thought-provoking survey gave insight into the partnerships between community colleges and high schools. The Wilder Collaboration Factors Inventory provided a means to determine the factors that influence collaboration and identified strengths and weaknesses providing valuable assessment of the relationship (Mattessich et al., 2001). The survey protocol (Appendix F) included the request for consent for participation and the survey questions.

According to Mattessich et al. (2001), “A RAND study reported reliability data for the instrument” referring to the Wilder Collaboration Factors Inventory. The RAND

study evaluated the survey instrument in conjunction with a grant funded initiative called Community Voices in Miami in partnership with various community health care stakeholders (Derose, Beatty, & Jackson, 2004). Since the survey instrument had not been validated for education research, I conducted Cronbach's alpha test on the factors in the survey. According to Tabachnick and Fidell (2001), coefficients greater than 0.7 indicate reliability of the factors. The Cronbach's alpha test was performed and provided evidence of reliability.

Interview protocol. The interview protocols (Appendix B, C) were used to obtain data and create knowledge on the topic of CEP from the perspectives of New Jersey community college and high school administrators and faculty. Each participant signed an Informed Consent form and agreed to participate in the interview (Appendix A). I informed each participant that I used a recording device and took notes to document the interview. According to Yin (2014), researchers need to be aware of reflexivity or subtly infusing their perspective to influence the interviewee. Prior planning and an interview protocol guide (Appendix B, C) helped me as the researcher to restrain my behavior to reduce reflexivity (Yin, 2014).

Data Collection

Keeping my research questions and sub-questions in mind as well as my literature review, the following data collection protocol guided the data collection phase uncovering evidence about the phenomenon of CEP partnerships in New Jersey. Data collection consisted of documentation review, collaboration survey, and interviews of administrators and faculty from New Jersey community colleges and high school partnerships offering comprehensive CEP. I pilot tested the survey and interview

questions for practice and to ensure that data obtained answered my research questions. As recommended by Yin (2014), my data sources were linked to each research question and all data were collected prior to data analysis. Yin (2014) also suggested that the data collection protocol include operational procedures for managing the tasks such as gaining access, identifying resources, and timetables with consideration for the unexpected. My initial data collection was in the form of inquiry by e-mail to determine which New Jersey community colleges offered comprehensive CEP including math and English and requested their participation in my research. I also requested contact information for the high schools to obtain permission to conduct interviews with high school administration and teachers based on the high schools' protocol. I sought and received Institutional Review Board (IRB) approval from each college that agreed to participate in my study as well as Rowan IRB approval and obtained the high school permission to interview their administrators and faculty.

Documentation collection. Documentation is one of six possible sources in data collection (Yin, 2014). Other sources included archival records, interviews, direct observation, participant-observation, and physical artifacts (Yin, 2014). I requested brochures and other documentation (Appendix D) including CEP agreements from partnerships. I reviewed the documentation to reveal how it supported the partnerships with historical evidence of CEP policies, procedures, and processes. With my multiple case study, I used this documentation from multiple sources to compare and contrast evidence of collaboration in the documentation.

Survey data collection. According to Fink (2013), surveys can be implemented to obtain relationship information. I intended and succeeded at grouping together the responses on the Wilder Collaboration Factors Inventory from each college and high school partnership including the college administrator, college faculty, high school administrator, and high school teacher qualified as a college adjunct. The results were revealed per college and high school partnership and were compared to other partnerships. I reviewed the relationships of each partnership separately and comparatively. The survey results can help partnerships learn from their similarities and differences (Mattessich et al., 2001).

Interview data collection. After the participants signed an Informed Consent form (Appendix A), I used a recording device and took notes to capture the interview. My goal was reached to elicit information from the participants' perspective about how and why CEP partnerships were created, and how CEP courses were selected. During the interview, I introduced myself again formally and told the participant about myself and asked them to tell me about themselves. Building trust by having an initial informal conversation will help the participants feel comfortable to open up in their responses to the interview questions (Rubin & Rubin, 2012). I asked the participants to further explain their involvement with the partnership and asked if I could follow up with additional questions if needed. No additional questions were needed. Collaborative partnerships allow organizations to work together to face issues with combined resources (Mattessich et al., 2001). I learned about collaboration and student engagement as well as college readiness strategies as part of the CEP partnerships. Ending the interview, I thanked the participants for their time and information in helping me with my research. I ensured that

each participant had my contact information in case they wanted to provide additional information or had questions after the interview.

Natural settings are likely to provide natural responses (Rubin & Rubin, 2012) therefore, interview data collection took place at the participants' place of employment to gather information in the setting where CEP partnership business took place. Interviews were conducted with an audio recorder and written notes using open ended questions. Notes were used to validate the recordings and transcripts of the interviews. For objectivity when recording interview responses, it is important to prepare careful notes (Maxwell, 2005).

Data Analysis

Once the documentation, survey results, and interviews had taken place then I analyzed my data. Yin (2014) suggested developing an analytic strategy in various ways such as, putting information into matrixes of categories, creating data displays such as flowcharts, or putting information in an order that fit the research. My analytical strategy included developing an array of categories by looking at each piece of information separately and then in total when reviewing documentation, survey scores, and interview transcripts. I categorized each piece of information by aligning it to themes and collaboration categories in a matrix. Dissecting the data into categories revealed codes to compare and contrast with other data (Saldana, 2013).

This database of information allowed me to make the connections to support or refute my propositions and generalize to my theories. Keeping a formal collection of data and maintaining a chain of evidence from multiple sources allowed me to generalize the data to theory (Yin, 2014). The initial organization was important in maintaining records

and categories that I analyzed. Yin (2014) reported that data analysis approaches should be considered at the case study protocol development stage, but analysis would also emerge as you delve into your data to see patterns, insights, and concepts emerge.

Organization. After I gathered all data then I prepared and analyzed the data to code and report on my findings. I had sufficient evidence and carefully considered rival explanations to adequately analyze the data (Yin, 2014). Reviewing documentation, survey responses, and interviews allowed me to investigate my data. Data analysis included data reduction, data display, and then data conclusions and verification (Miles & Huberman, 1994). Spending time with my data allowed themes and categories to emerge to answer my research questions and stay organized.

Documentation analysis. When reviewing documentation, I kept in mind that the material was developed for another purpose and may only provide inferences towards my research questions (Yin, 2014). Information related to my research questions were recorded from the documentation in a notebook for each college and high school partnership. I was cognizant of who was featured in the brochures to see if it is highly college, high school, or student profiled. Reviewing CEP agreements also revealed what is driving the agreements. Agreements were initiated by the college and not the high school. My documentation notes were coded in a database included in the case study analysis.

Survey result analysis. Survey responses allowed me to obtain themes and consistencies or inconsistencies properly coding the survey results (Fink, 2013). The Wilder Collaboration Factors Inventory were scored and rated to understand in total which factors were held higher than other factors. Having four participants in each

collaboration contributed to the study and provided diverse perspectives of the partnerships. According to Mattessich et al. (2001), "A greater number of raters will produce a more reliable result, and one that reflects the many different perspectives that individuals bring into a group" (p.41). Raters were my survey participants.

The Wilder Collaboration Factors Inventory does not have a normative standard, but the information from the group can be useful for discussion and planning for improvements in the collaboration (Mattessich et al., 2001). The higher scores show strengths of the collaboration and probably do not need much attention, borderline scores may need to be discussed, and lower scores are the areas that the collaboration would want to spend the most time discussing how to make improvements (Mattessich et al., 2001). Surveys are useful when planning and evaluating programs and seeking information directly from the people involved (Fink, 2013). Individuals in collaborations need to be valued to ensure their voice is heard (Putnam et al., 2012).

Interview coding and analysis. Yin (2014) posited interviews provided a good source of research evidence. I transcribed my interview recordings while reviewing my notes. I then coded and analyzed the interview data. According to Saldana (2013), transcribing recordings into raw data allows preliminary codes and then final codes to be discovered. Spending time with my data during the transcribing phase gave me rich descriptive information from each participant. The data were analyzed in connection with my research questions, propositions, and rival explanation. In Vivo coding was appropriate in qualitative studies capturing the participants' own voices (Saldana, 2013). Saldana (2013) explains In Vivo coding as capturing the terms that participants use in their daily lives.

After coding the data using the In Vivo first cycle coding approach I reduced the data into themes linked to my research questions. Pattern Coding provided a method of labeling the themes that emerged from the data (Saldana, 2013). This second cycle coding (Saldana, 2013) allowed me to dig deeper into the themes to further analyze the data. Developing a matrix of themes, I organized the interview data within the database and compared and contrasted the themes across interviews and partnerships. The database consisted of a matrix of multiple forms of data and stored on a password protected computer.

Case study analysis. Linking multiple sources of data such as, survey data, interview themes, and notes from documentation reviewed from multiple partnerships, provided triangulation in case study data analysis (Yin, 2014). Table 3 depicts a multiple case study design showing all four CEP partnerships, which indicates replicating the document review, survey, and interviews with four participants for each partnership. I compared and contrasted each partnership and generalized to student engagement and collaboration theories keeping college readiness in mind. According to Yin (2014), replication logic provides for a robust study.

Table 3

Multiple-Case Study Design for Partnerships and My Data Collection and Analysis

Multiple-case design for CEP	
CEP Partnership #1	Data Collection & Analysis
Partnership #1	Documentation
Community college administrator	Survey Interview
Community college faculty	Survey Interview
High School administrator	Survey Interview
High School teacher	Survey Interview
CEP Partnership #2	Data Collection & Analysis
Partnership #2	Documentation
Community college administrator	Survey Interview
Community college faculty	Survey Interview
High School administrator	Survey Interview
High School teacher	Survey Interview
CEP Partnership #3	Data Collection & Analysis
Partnership #3	Documentation
Community college administrator	Survey Interview
Community college faculty	Survey Interview
High School administrator	Survey Interview
High School teacher	Survey Interview
CEP Partnership #4	Data Collection & Analysis
Partnership #4	Documentation
Community college administrator	Survey Interview
Community college faculty	Survey Interview
High School administrator	Survey Interview
High School teacher	Survey Interview

Immersed in the data, I was cognizant of my interpretation of the data as well as the participants who may want me to view them in a certain way (Miles & Huberman, 1994). Sifting through the data and reflecting on the research, I used the instrumentation and protocols to minimize my viewpoint and the participants' influence on the data. Charting is a way that made sense for me organizing the data for analysis (Miles & Huberman, 1994). I used Table 4 for cross-case analysis triangulating and organizing my codes that I analyzed by participant and in aggregate.

Table 4

Cross-Case Analysis

Cross Case Analysis of CEP with Partnerships 1 to 4		
Documentation	Documentation notes Partnership#1-4	
Community College administrator		Interview#1-4
Community college faculty		Interview#1-4
High School administrator		Interview#1-4
High School teacher		Interview#1-4
Aggregate - all Participants	Survey#1-#4	Interview#1-4

Codes emerged from the documentation notes, survey results, interview transcripts revealing patterns in the data analysis (Saldana, 2013). This convergence of evidence enabled generalization to theory, which refuted or substantiated my propositions (Yin, 2014). According to Yin (2014), I also considered and reviewed alternative explanations ensuring other possibilities were explored.

Yin (2014) stated that theoretical propositions drive the case study to answer research questions by generalizing to theory. My documentation, survey, and interviews triangulated my data around collaboration, student engagement, and college readiness theories. Miles and Huberman (1994) concur that theory is the map generalizing and connecting propositions with relevant data. The documentation, survey, and interview data from participants in CEP partnerships in New Jersey community colleges and high schools provided relevant data for my research questions. In analyzing the data, I let the themes emerge to generalize to student engagement, collaboration and college readiness theories.

Validity

According to Yin (2014), case study research must attest to the quality of the data by addressing construct validity, internal validity, external validity, and reliability. My research of CEP partnerships provided construct validity with multiple sources of data, external validity with replication of a single case study tied to theory, emerging themes, and exploring explanations, internal validity with rival explanation, and reliability with my protocols and code book database. Construct validity entails the triangulation of data following a chain of evidence during data collection and composition (Yin, 2014). I triangulated my data collection by collecting multiple forms of data in my multiple case study. This data consisted of documentation of the CEP partnerships, as well as survey and interview data from multiple participants for construct validity. Internal validity occurred during data analysis when reviewing patterns, explanations, and rival explanations (Yin, 2014).

Analyzing my data to look for emerging themes and exploring rival explanations provided internal validity. External validity used replication of multiple-case study or theory in a single-case, while reliability depended on the use of protocols and databases during data collection (Yin, 2014). My research on CEP partnerships provided reliability as I used my case study resources including my protocols, and code book database of themes. Pilot testing my instruments supported reliability. I did my best to let the data speak for itself and captured participant voices and not my own. My dissertation chair and committee further validated my research.

Ethical Issues

As a New Jersey community college administrator, I am vested in the interest of students' college readiness. I am passionate about this subject watching my daughter struggle through several years of developmental math, and with persistence, completed her community college degree. I am an ethical person. To avoid ethical issues, I obtained Institutional Research Board approval at each research site ensuring I did no harm to participants. Bracketing was used to keep my bias at bay when conducting this research. Gearing (2004) stated that bracketing allowed me to focus on the study.

Confidentiality of the participants was maintained to protect the individuals and the case (Creswell, 2014). A number scheme was devised for the participants to protect their identity. No names or places were described, and all data were kept confidential. According to Booth et al. (2008), ethics addresses connections with community and the choices we make. My choices were made with the utmost integrity to ensure an ethical case study report was produced.

Institutional Review Board and Approval

Institutional Review Board approval was required and granted from each participating college as well as Rowan University to conduct research about the New Jersey community college and high school partnerships offering CEP. I followed the processes and procedures established to request IRB approval. According to Yin (2014), IRB approval is needed to conduct research on human subjects to avoid harm and ensure protections. Privacy and confidentiality were documented in an Informed Consent form (Appendix A). Permission to interview high school administrators and teachers were obtained following each high schools' process prior to any data collection.

Findings and Conclusion

After my data was collected, organized, coded, and analyzed, my findings emerged and were presented in the final two chapters of my dissertation. These chapters included tables and data displays presented along with the narrative explaining how findings were discovered (Miles & Huberman, 1994). Comparing the findings against propositions allowed for pattern-matching to develop conclusions, which allowed for testing against the propositions (Yin, 2014).

Alternative explanations were explored ensuring the data collection and analysis were drawn conclusively to propositions and that other possibilities were considered. Yin (2014) posited initial theoretical propositions with consideration for rival explanations allowed me to include attempts to collect data on other possible influences. There are no preset ways to report findings that correlate the data generalized to theory but having an early plan in place was beneficial (Yin, 2014). Miles and Huberman (1994) suggested the findings and conclusion are analyzed as part of the processes of data collection, data

transformation, and display of data, as well as analyzing how conclusions were made about the data. Outlining the final two chapters before data analysis allowed me to keep the data systematically organized into writable information while infusing the voices of the participants directly into the report once my data analysis was completed. Yin (2014) suggested to begin writing the case study report even before data collection to report on methods, literature review of previous research, and case descriptions.

Maintaining a database of themes and codes in a systematic and organized way assisted in writing about my findings. My research questions, propositions, and protocols provided the foundation of my writing. Descriptive accounts of the phenomenon of New Jersey CEP partnerships are provided throughout the findings and conclusion. Yin (2014), stated that clear, vivid and visual writing, showing writer enthusiasm for the topic, keeps the reader engaged. With my audience in mind, those interested in a qualitative case study of New Jersey community college and high school CEP partnerships, I accurately reported my findings and conclusion, including descriptions, clear explanations and examples for the reader to maintain interest.

Chapter 4

Findings

My study sought to understand why New Jersey community college and high school partnerships offered CEP to high school students and if collaboration, student engagement, and college readiness informed these partnerships as well as how CEP courses were selected. I have identified CEP partnerships by number as Partnership 1, Partnership 2, Partnership 3, and Partnership 4. Each partnership consisted of four types of participants for a total of sixteen participants. I analyzed documents, survey results, and interview data by partnership and in aggregate to present my findings. Triangulation of data from diverse participants and multiple sources enriches the data findings (Miles and Huberman, 1994).

Chapter 4 provided an overview of participants, discussed the Wilder Collaboration Factors Inventory, and presented themes from the data keeping my research questions, propositions, and rival explanations in mind. Partnership information follows with an overview, discussion of partnership themes, and conclusions. Cross-case analysis and findings for all partnerships are then presented with a final summary of findings before introducing Chapter 5, which is my conclusion. Beginning with a description of the participants provided a base for the findings.

Participants

Each partnership consisted of four types of participant: college administrator, college faculty, high school administrator, and high school teacher, who were familiar with the CEP partnership in their districts. Four partnerships were selected based on purposeful sampling of New Jersey community college partnerships offering

comprehensive CEP programs including math and English. This selection helped to understand if my theoretical concept of college readiness was a factor considered in the decision of offering CEP. Student engagement and collaboration structured my theoretical framework for data analysis and findings of each partnership as well as in aggregate. Titles of all participants in Table 5 show diversity of participation. Years of CEP service in Table 5 show the mean number of years participating in CEP for each participant type as well as for each partnership and in aggregate.

Table 5

Participants by Type with Titles and Years of CEP Service

Participant Type	**Partnership 1 Title / Years**	**Partnership 2 Title / Years**	**Partnership 3 Title / Years**	**Partnership 4 Title / Years**	**Mean Years**
College Administrator	Director of Testing & Learning Resources / 3	Director of K-12 Partnerships / 4	VP Enrollment Management & Student Success / 4	Executive Director of Academic Success / 3	3.5 Years
College Faculty	Professor of Mathematics / 4	Math Faculty – CEP Liaison / 1	Assistant Professor of English / 8	Adjunct Professor – Social Studies	8.25 Years
High School Administrator	School Counselor - Post Secondary Program Coordinator / 10	College and Career Counselor / 5	Guidance Services Administrator / 7	Principal / 2.5	6.125 Years
High School Teacher	Instructor of English Composition - CEP / 2	English Teacher - CEP / 10	Math & Computer Science Teacher - CEP / 5	English Teacher - CEP / 1.5	4.625 Years
Mean Years of CEP Service	4.75 Years	5 Years	6 Years	6.75 Years	5.625 Years

The college administrators consisted of two Directors, an Executive Director, and a Vice President. The faculty consisted of two Professors of Math, an Assistant Professor of English, and an Adjunct Professor - Social Studies Teacher. High school administrators had the most diverse titles with a School Counselor – Post Secondary Program Coordinator, College and Career Counselor, Guidance Services Administrator, and Principal. The high school teacher titles consisted of three English Teachers and one Math & Computer Science Teacher. High school teacher participants taught CEP courses and were qualified as college adjuncts.

Table 5 shows the number of years of experience for participant type and partnership. Partnership 2 had the newest CEP participant only involved in CEP for one year. The college faculty in Partnership 4 had the most years involved in CEP with 20 years of CEP experience. This participant was a high school teacher and college adjunct at the community college serving dual roles in the CEP partnership but participated in my study as the college faculty. College administrators had the shortest involvement with CEP at only 3.5 years while the college faculty had the longest involvement at 8.25 years. Partnership 1 had the shortest involvement in the CEP partnership at only 4.75 years and Partnership 4 had the longest involvement at 6.75 years. Overall the mean number of years of experience with CEP was 5.625 years.

All participants completed individual recorded interviews and surveys. Documents were obtained by partnership. The Wilder Collaboration Factors Inventory responses were combined into factor scores and further combined into collaboration category scores for evaluation of each partnership and in aggregate. Collaboration factor

and category scores are explained providing baseline information before diving into the partnerships and emerged themes.

Wilder Collaboration Factors Inventory

The Wilder Collaboration Factors Inventory identified six categories of collaboration consisting of environment, membership characteristics, process and structure, communication, purpose, and resources (Mattessich et al., 2001). These categories are a culmination of 22 collaboration factors. Factors are discussed briefly as they pertained to high or low scores within a category for each partnership and in aggregate. This survey provided insight into the collaborative nature of the CEP partnerships and in aggregate for all partnerships.

Table 6 shows the factors and categories of collaboration according to the Wilder Collaboration Factors Inventory. By answering a series of questions for the survey (Appendix E) in Likert scale from strongly disagree to strongly agree, participant scores were calculated for each factor. Factor scores were further condensed into each of the six collaboration categories of environment, membership characteristics, process and structure, communication, purpose, and resources (Mattessich et al., 2001). The final column in the table shows the mean scores for each of the six categories for all partnerships. Total mean scores are shown by partnership and in aggregate at the bottom of Table 6.

Table 6

Wilder Collaboration Factors Inventory – Factors and Categories

	Factor Mean Scores				Category Mean Scores				Total
Category / Factor	3	4	1	2	3	4	1	2	
Membership Characteristics Category					4.9	4.6	3.8	3.5	4.2
Mutual respect, understanding, and trust	4.9	4.6	4	3					
Appropriate cross section of members	4.9	4.1	3.3	3.3					
Members see collaboration as being in their self-interest	5	5	4.3	4.3					
Ability to compromise	4.8	4.5	3.5	3.5					
Environment Category					4.5	4	3.6	3.3	3.9
History of collaboration or cooperation in the community	4.1	4	3.8	3.5					
Collaborative group seen as a legitimate leader in the community	4.5	4	3.5	3					
Favorable political and social climate	4.8	4.1	3.4	3.5					
Purpose Category					4.4	4.2	3.5	3.4	3.9
Concrete, attainable goals and objectives	4.8	4.3	3.8	3.1					
Shared vision	4.6	4.3	3.5	3.4					
Unique purpose	3.9	3.9	3.3	3.6					
Communication Category					4.7	4	3.1	3.4	3.8
Open and frequent communication	4.5	3.7	2.7	2.8					
Established informal relationships and communication links	4.8	4.3	3.4	3.9					

Table 6 (continued)

	Factor Mean Scores				Category Mean Scores				Total
Category / Factor	3	4	1	2	3	4	1	2	
Process and Structure Category					4.5	3.9	3.3	3.1	3.7
Members share a stake in both process and outcome	4.7	4.5	3.5	3.8					
Multiple layers of participation	4.6	3.4	2.9	2.9					
Flexibility	4.8	3.8	3.5	3.1					
Development of clear roles and policy guidelines	4.5	3.9	3.5	2.8					
Adaptability to changing conditions	4.6	3.9	3.6	3.4					
Appropriate pace of development	4.1	3.8	2.9	3.1					
Evaluation and continuous learning	4.2	3.7	3.4	2.9					
Resources Category					4.2	4.1	3.2	2.9	3.6
Sufficient funds, staff, materials, and time	4.1	3.9	2.5	2.9					
Skilled leadership	4.8	4.3	3.5	3					
Engaged stakeholders	3.8	4	3.5	2.8					
Total Mean Category Score by Partnership and for All Partnerships					4.5	4.1	3.4	3.3	3.8

Table 6 shows scores were ranked from the highest to lowest of the six category scores for all partnerships and from left to right for the highest to lowest total mean category scores for each partnership. Mattessich et al. (2001), devised a method of calculating the scores of factors based on specific questions and calculating category scores based on specific factors. All the scores are added together and divided by the number of scores to arrive at each factor or category mean scores (Mattessich et al., 2001). Generally, mean scores of 2.9 or lower may indicate concern of the partnership, 3.0 to 3.9 may require discussion, and 4.0 or higher may show strong collaboration (Mattessich et al., 2001).

Partnership 3 showed the highest collaboration score of 4.5. Partnership 4 trailed slightly behind with a score of 4.1. Partnership 1 was in third of the four partnerships with a score of 3.4, and lastly Partnership 2 had the lowest collaboration score of 3.3. Based on Mattessich et al. (2001) score interpretation, Partnerships 3 and 4 were generally strong and do not need attention while Partnerships 1 and 2 were in the second range that indicate a discussion is warranted about their partnerships to see where attention is needed for a stronger collaboration. No partnership fell below 3.0, which could indicate concern of the collaboration (Mattessich et al., 2001).

Categories in Table 6 showed membership characteristics as the highest collaboration category with a mean score of 4.2. Environment and purpose categories were tied at 3.9. Communication score was 3.8. Process and structure came in 5th with a score of 3.7. The final and lowest category score was resources at 3.6. Based on Mattessich et al. (2001) scoring, membership characteristics were strong with the rest of the categories possibly needing attention or discussion. None of the category scores fell

below 3.0, which may present concern of the collaboration in that category (Mattessich et al., 2001).

The Wilder Collaboration Factors Inventory scores were discussed in each partnership section and in the cross-case findings section of this chapter. Factor scores were merged into category scores (Table 6). The reliability of each of these factors and categories are presented in Table 7. In general, coefficients of 0.7 or greater indicated acceptable reliability (Tabachnick & Fidell, 2001).

Table 7

Cronbach's Alpha Test on Collaboration Factors and Categories

		Cronbach	
Factor	Factor Description / Category	Factor	Category
1	History of collaboration	0.78	
2	Collaborative group legitimate leader	0.95	
3	Favorable climate	0.82	
Category	Environment Category - Factors 1-3		0.91
4	Mutual respect	0.96	
5	Cross section	0.92	
6	Self Interest/Membership	N/A	
7	Compromise/Membership	N/A	
Category	Membership Category - Factors 4-7		0.95
8	Members share a stake	0.99	
9	Multiple layers of participation	0.83	
10	Flexibility	0.96	
11	Development clear rules & policy	0.82	
12	Adaptability	0.71	
13	Appropriate pace of development	0.83	
14	Evaluation & continuous learning	0.80	
Category	Process & Structure Category		0.98

Table 7 (continued)

Factor	Factor Description / Category	Cronbach Factor	Cronbach Category
15	Open & frequent communication	0.96	
16	Informal relationships & communications	0.84	
Category	Communication Category		0.95
17	Concrete, attainable goals	0.98	
18	Shared vision	0.92	
19	Unique purpose	0.85	
Category	Purpose Category		0.88
20	Sufficient funds, etc.	0.90	
21	Skilled leadership	N/A	
22	Engaged stakeholder	N/A	
	Resources Category		0.91

All factors are at least acceptably reliable ($0.71 \leq \alpha \leq$ v 0.98). A subset of factors were not tested (i.e., 6 self-interest in the membership category, 7 compromise in the membership category, 21 skilled leadership and 22 engaged stakeholder in the resources category) because they only had one question associated with the factor. According to Field (2009) applying all factors in a dataset measures the strength of the dataset. The mean scores of the categories were all above 0.7 providing an acceptable reliability of the categories. Cronbach's alpha test (Table 7) analyzed scores from the Wilder Collaboration Factors Inventory. This survey along with documentation and interview data were analyzed to develop themes. An overview of these themes introduces analysis and findings of each partnership and in aggregate.

Themes

According to Yin (2014), interviews with open-ended questions provided a good source of data for research. The raw interview data were transcribed for preliminary and final codes or themes to emerge (Saldana, 2013). My interview questions were designed to elicit information to answer my research questions. Research questions, propositions, and rival explanations were kept in mind while analyzing and coding the interview, documentation, and survey data. Codes emerged into thematic categories of academic integrity, opportunities for students and institutions, college readiness, student engagement, collaboration and communication, and transfer. Codes emerged from the themes connect to collaboration categories in Table 8.

Table 8

Themes Aligned to Wilder Collaboration Factors Inventory Categories for All Partnerships

Themes	Collaboration Category - Mean Score / Code			
Academic Integrity	Membership - 4.2/ Engaged partners, Years of service	Environment - 3.9 / Favorable or not involved	Process & Structure - 3.7 / Course alignment, Teacher credential, Combined AP & CEP course	Resources - 3.6 / Shared curriculum & exams
Student & Institution Opportunities	Purpose - 3.9 / Student CEP experience in college course, Institution recruits CEP students	Process & Structure - 3.7 / CEP counts in community college enrollments		
College Readiness	Membership - 4.2 / Advanced Students, Students learning college readiness skills	Environment - 3.9 / Students arriving on community college campus as not college ready	Purpose - 3.9 / Already college ready, prepare or maintain readiness	
Student Engagement	Environment - 3.9 / Student engagement or classroom engagement strategies			

Table 8 (continued)

Themes	Collaboration Category - Mean Score / Code			
Collaboration & Communication	Membership - 4.2 / Participants involved / not involved	Environment - 3.9 / Team worked together / not involved	Communication - 3.8 / Open communication / Limited communication	Resources - 3.6 / Each partner can provide what is needed
Transfer	Purpose - 3.9 / Easy transfer / transfer issues			

Academic integrity, according to the International Center for Academic Integrity, is a commitment to honesty, trust, fairness, respect, responsibility, and courage which enable principles of behavior in educational settings, (International Center for Academic Integrity, 2019). The academic integrity theme included the process and structure of CEP with teacher credentials and course alignment. Courses offered at the high school are the same as those offered on the college campus providing fairness, responsibility, and trust of qualified teachers delivering CEP college level courses. Engaged partners with their years of service in the membership category, favorable environment or participants not involved in the environment category, as well as resources such as shared curriculum and exams in the resources category fell into the academic integrity theme showing responsibility and fairness of offering comparable college level courses.

The opportunities for students and institutions theme emerged with students' experiences of college courses while in high school as well as institutions recruiting CEP students in the purpose category and counting CEP enrollments in college enrollments in

the process and structure category. Institutions are the community colleges where students earn their CEP credits. Opportunities were found for both students and the institutions.

College readiness is defined as students entering college not needing developmental education (Karp et al., 2004). Students taking CEP courses typically needed to be college ready based on Accuplacer assessment to place into college level classes. Advanced students or students learning college readiness skills were coded and listed in Table 8 in the membership category. Students not arriving on campus as college ready is found in the environment category. The purpose category showed CEP is offered to students who are already college ready or also prepared or maintained college readiness in CEP students.

Tinto (2007), described student engagement as academic involvement and quality of effort associated with positive outcomes for students coded in the environment category as student engagement in CEP classes. Participants noted characteristics of CEP students in the area of student engagement, academic involvement and quality of effort of the student in the student engagement theme. CEP classroom engagement strategies, also in the environment category, were identified and supported an institutional framework for providing conditions for student engagement such as expectations, academic support, and feedback (Tinto, 2012). Participants identified classroom strategies such as limited lecture, group projects, applied learning, individual attention, and student feedback in the CEP classroom engagement strategies theme.

Collaboration brings together resources and knowledge from multiple institutions (Mattessich et al., 2001). The collaboration and communication theme emerged within

most of the collaboration categories because the categories are collaboration categories. Collaboration and communication did not fit into the purpose category because collaboration and communication supported CEP partnerships, but the purpose of CEP was identified as opportunities for students and institutions, college readiness, and transfer of CEP credits. This theme also did not fit into process and structure because there was no evidence of process or structure for collaborating or communicating among the partnerships or participants. Participants involved or not involved were identified and coded under the membership category. Teams working together or not involved were coded to the environment category. Open communication or limited communication were coded to the communication category because the collaboration and communication theme included findings on communication. Each partner provided what was needed was a code in the resources category. Resources supported the partnerships but were not necessarily shared resources. Participants provided knowledge about the collaboration, except those not involved, mainly the CEP teachers.

The transfer theme referred to CEP courses transferring to another college, not the community college where students' earned CEP college credits. Educational institutions evaluated transcripts determining if courses met the requirements to allow students to transfer credits to their institution. Transfer occurred as equivalent where courses match or as elective where credits were applied as electives to the degree program but not to the core courses. Issues with transfer were communicated along with easy transfer according to participants and were coded to the purpose category.

Partnership 1 Findings

Overview. Partnership 1 had the least number of mean years involved in the CEP partnership at 4.75 with the range of two to 10 years of experience with CEP (Table 5). This partnership scored third out of four partnerships for a total mean collaboration survey score of 3.4 (Table 6). A score of 3.4 indicated that the partnership may need attention according to Mattessich et al. (2001). This partnership may not be the strongest but had valuable information about CEP for this study. Below, I discuss how the six themes introduced earlier emerged in Partnership 1.

Academic integrity. The college administrator stressed that academic integrity, ensuring the high school teacher used the same curriculum so the courses aligned and qualified teachers with credentialing were important aspects of offering CEP courses. The college administrator involved college department chairs in approving curriculum and aligning courses with their master syllabus. Deans approved credentials of instructors and observed teachers to ensure academic integrity. CEP students took the same placement test that students took when applying to the community college. When asked why CEP courses were offered, the high school administrator replied,

> to fill a void and every school's a little different in what they offer for students, so we don't have as many AP courses. So, this is one we have, one AP course and English course, so this is what really most students are attaining.

CEP English was offered for CEP and Advanced Placement (AP) credit according to the high school teacher, but will likely be separated next year because of the different requirements with AP more intense, focused on the test, and geared toward literature with CEP English geared toward writing composition and techniques. The teacher was also

concerned that CEP English students will “miss out on literature and Shakespeare, which could be on SAT tests and in college courses.” Since the course was offered five days a week the teacher infused literature into the writing assignments. The high school teacher stated,

> Because it’s a full year course, so I’m doing a lot of the composition that the college wants me to do however I'm blending Shakespeare and literature that the college is not doing. So we are using a supplemental book that has much more literature in it and writing so the way I’m structuring the course, they are reading literary examples and then they are writing based on what the college wants as far as the type of writing that the college wants.

Without an exact alignment of the CEP English course, the high school teacher created the structure to cover the college material and included literature in the assignments.

Opportunities for students and institutions. According to the documentation, Partnership 1 revealed three different options for high school students to earn college credits while in high school: Concurrent Enrollment Program were those courses offered at the high school, Dual Enrollment Program were college courses offered online to high school students, Jump Start Program offered college courses to high school students on the college campus. Concurrent and Dual Enrollment had specific reduced per credit tuition rates while Jump Start showed a 50% reduction in tuition and fees. The high school documentation was outdated but indicated CEP courses were general education courses that satisfied basic requirements in a broad range of majors. Students needed to contact their high school guidance counselor for information. CEP provided an “opportunity for students,” according to the high school administrator further stating,

> it allows students to get a feel for what it is like to be a college student while in high school. That is one of the main reasons, I think other than just having that advanced placement in school. Then when they go to college, they have that idea and are able to finish early or to take more courses in their program, the requirements. And for most students it looks better for college acceptance. So a good factor for most schools is having a rigorous curriculum and this gives them that.

The college administrator shared that CEP helped students and parents financially with the reduced rate, and students could

> go to any college, not just necessarily ours, they go with the credit bank of more often than not, gen. ed. credits, which transfer everywhere, and they have a good bit of their studies completed by the time they're walking in the door as freshman.

The college administrator identified success of students as the shared vision of the CEP partnership. The college faculty agreed that CEP was advantageous to students as,

> it very directly shows the students the content they're expected to know at the college level, so they have the opportunity to experience learning and achieving what right now is being achieved in the first, and sometimes second year of the college experience.

Courses selected by the high school were those that the high school expected to be most beneficial for their high school students according to the college faculty. Some high school students even graduated high school with an associate degree, according to the college administrator and the high school teacher.

The high school teacher believed students with the eligible GPA and foundation got a "jump start on college" and the opportunity to complete basic courses, but pointed to the institutional opportunity stating,

> I really think for the community college it's financial because the students are paying at the high school for this class at a much lower rate, but if they go in the summer or they go at night, they are paying the community college rate.

The college administrator reiterated that CEP "helps enrollment" for the community college. The college faculty agreed and when asked the reasons and benefits for offering CEP stated,

> Honestly, from the perspective of our college, my impression has been for the most part, enrollment. To increase enrollment numbers and for community relations to make students at the high schools and faculty at the high schools aware of what we have to offer here at the community college, so it's kind of an outreach in that way.

The community college acknowledged that they showcased their programs hoping to recruit CEP students.

College readiness. All participants agreed that CEP students were college ready or had the opportunity to become college ready by participating in a college level course. Students were required to take the same placement test and met the same prerequisites as students at the college according to the college faculty. If student were not college ready based on placement testing, they had the opportunity to take a college readiness boot camp at their community college and to retest for the opportunity to place into CEP. Other partnerships also offered other means for students to become college ready. The

high school administrator stated that CEP students "are typically in the top 15% of the class." The college faculty agreed "my sense is very much that it's the cream of the crop taking these courses." When asked about offering CEP courses the college faculty stressed, "Having students arrive on campus who are college ready is a constant struggle. That [college readiness] certainly is part of the decision." The college faculty further stated,

> if they decided to come to community college after taking a course concurrently, they would be way ahead of the game. That would be a good thing. My impression though, and this is just an impression because I don't have our data on it. I think for the most part, the students who take our courses concurrently, tend not to be students who are coming to the community college. They tend to be students who have their sights set on four-year schools.

Advanced students who were college ready participated in CEP in this partnership.

The high school administrator declared that "the stereotype of the school is that you know everyone wants to go into a trade," but

> we actually start that college readiness process in my mind in their sophomore year because we allow them to take the Accuplacer here as a sophomore and we have that thought process right then and there to be college ready. We can kind of decipher which student needs more help and which student doesn't.

Students were required to be eligible to participate in CEP courses. The high school assessed students early in high school and provided supports to help students become college ready.

Partnership 1 documentation presented eligibility and testing requirements. The testing requirements indicated SAT cut scores of 500 in math and 450 in critical reading and writing or ACT cut scores of 23 in English, 23 in reading, and 23 in math or passing placement test (Accuplacer) scores to place into the CEP course. CEP math departmental exams and practice tests were provided to the CEP instructors according to the college faculty. The placement test was previously required for non-math and non-English courses but has been waived removing that barrier for students according to the high school administrator. The high school teacher believed that Accuplacer was flawed as they had students that were possibly not college ready in their class and other students who may have been college ready but did not receive the placement score to qualify for the CEP class.

The high school teacher stated that CEP "gives them the opportunity" to be college ready and to "understand what is going to be expected of them in other classes in college." The high school administrator said,

> A good example is a couple of years ago we had a student who was not college ready to take the course and was very eager to take the college credits, had a good GPA but didn't have that cutoff score so I know at that time the county college had started like a boot camp type of thing. So, she was a part of that course she took it at the college. It was for English at the time and she went there for free boot camp. They provided for anyone who did not make the cut off. She was a sophomore going to be a junior and she succeeded with the boot camp. She was able to take the test again, get a higher score, became college ready and she

> continued the program. She graduated from here, had like 30 college credits, and moved on to [college name] university.

According to the college faculty,

> I don't think it's ever been clearly stated on anything I've seen whether the students in a given class are juniors or seniors or perhaps a mix. They just have to meet the prerequisites. And I think it would be likely that this would improve the number of students taking a fourth year of Mathematics at high schools because concurrent courses are available, but I don't have any data to back that up.

The college and high school administrators agreed that CEP math supported maintaining college readiness, but when referring to math college readiness, the high school administrator stated that most students ignored the three-year math requirement to show rigorous course curriculum and took a fourth year of math regardless of the CEP option.

Student engagement. Students participating in CEP courses were engaged or strategies were provided in the CEP course to engage students according to the participants. The college faculty inferred that "CEP improves motivation and self-esteem for students to say I'm taking a course here at the high school that's going to count for college credit and for students to be able to say I've done this." The high school administrator stated, "a lot of students are driven and focused." CEP students were considered college students so "everyone who is in the program can go get a college I.D., like the picture I.D., which is a big deal for the students," according to the high school administrator. Partnership 1 college faculty and high school administrator revealed not only academic involvement, but also a sense of self-esteem and motivation as possible student engagement characteristics. Classroom engagement strategies consisted of limited

class lecture, reading, group projects, and peer editing when discussing student engagement with the high school teacher. These classroom activities support the institutional framework for student engagement with the institution providing conditions for student engagement (Tinto, 2012).

Collaboration and communication. Collaboration was identified in this partnership, but they faced some challenges of inclusion. The college administrator stated that the high school administrator "has been nothing but supportive. Anything new and innovative she's gung-ho on trying it out. She's always been a strong supporter of our CEP programs." The college faculty stated collaborative partnerships are "absolutely necessary. They've [high school partners] been extremely courteous and patient in wanting to know the protocol." The college administrator explained their relationship with the high school stating,

> They don't question our course content or syllabi or the process in which we roll out our CEP courses in the high schools, and they respect our curriculum and they respect the way in which we need to roll out that curriculum and in the process involved in it and in our credentialing.

The college administrator and college faculty both agreed that the CEP partnership was favorable while the high school administrator perceived that the CEP partnership as neutral stating, "I can't say it's positive or negative, it's more like this is the information." The high school administrator addressed this concern stating, "Rather than advancing programs that we have moving forward or offering things that we don't have in the county, there was some feedback of them [county college] duplicating services." The partnership could collaborate to reduce perceived duplication of services. The high school

teacher was not involved in the partnership other than teaching CEP courses. Neutrality of participants or participants not involved in the partnership is not collaborative and can threaten the partnership. Improved communication was evident with the high school administrator and teacher. Any communication the high school teacher had with the college flowed through the high school counselor as the college liaison.

One example of collaboration among the members is how Partnership 1 collaboratively found an alternative to the high school teacher requirement of a master's degree in the subject area. High school teachers are not required to have a master's degree, but college faculty are. The college faculty stated, "For years we had one teacher teaching it [CEP] and she retired so it's hard sometimes to find them [qualified CEP teachers]." The college administrator said the county college now accepts "credential by exception" for those high school teachers interested in teaching a CEP course. By taking a graduate course in the subject area the high school teacher became qualified to teach CEP.

The college administrator did not identify any shared resources and said "the districts paid for the CEP instructor's salaries because it's within their contract. In other words, they're teaching one class. They'll teach it on a CEP level." The college faculty stated,

> for math, because we do offer the departmental final exam, there are sets of practice problems to prepare students for the exams that we also send over to the high schools. And you know, in general, I would say that it's true, the high school students actually have more time to cover the topics than the college because at

> the college, sometimes what we teach in a single semester, the high school students have the entire school year to cover.

The high school teacher agreed, “They get more intense instruction in high school because of longer period of time for course instruction.” Resources in this partnership included shared curriculum, exams and practice tests as well as additional time for high school students to cover the materials.

Transfer. When asked about transfer, all the participants understood that the CEP credits transferred, except for Ivy League colleges. The college administrator believed, “with the gen. eds. especially they align more with our syllabi, they’re very transferable. We are offering non gen. eds., so we’re offering art courses, automotive courses, horticulture, cosmetology, so it’s not only strictly academic for gen. eds. now.” Similarly, the high school administrator whom the students typically sought out for advice on transfer, believed the transferability of college credits was nearly 80% with some colleges having a maximum number of allowable credits that transfer in. The high school teacher suggested that some college course credits transferred as electives.

Conclusion Partnership 1 findings. Partnership 1 was the youngest CEP partnership at 4.75 years (Table 5) and had the second lowest mean collaboration score of 3.4 (Table 6). This partnership maintained academic integrity by using the college course curriculum and exams and having qualified teachers. The requirement of a master’s degree in the subject area to teach CEP was replaced with the credential by exception in which a high school teacher could qualify to be a CEP teacher by taking a graduate level course. This partnership perceived CEP as a benefit for students in a number of ways. CEP students not only get a feel for being a college student, but they also accumulate

college credits on a transcript which enhances college applications. The benefit to the college of increased enrollments was also noted. Students taking CEP were highly motivated with the CEP course and college I.D. adding to their self-esteem. The college saw the partnership as favorable, but the high school administrator perceived it as neutral and the teacher was not involved. Transfer of CEP credits were thought to be good, but like other college credits, some credits transferred as elective credit depending on the receiving college's policies.

Partnership 2 Findings

Overview. The college faculty in Partnership 2 had the least number of years working with CEP with only one year experience (Table 5). The partnership had the second lowest years of experience in CEP at five years with a range of one to 10 years (Table 5). Partnership 2 had the lowest collaboration survey score of 3.3 (Table 6). This partnership placed into the category of needing attention based on the 3.3 score (Mattessich et al., 2001). The lowest factor scores at 2.8 (Table 6) were open and frequent communication, development of clear roles and policy guidelines, and engaged stakeholders. The highest factor score of 4.3 in Table 6 was that members saw collaboration as being in their self-interest. The interview data revealed that Partnership 2 perceived the relationship as favorable and cooperative with the collaborative goal of aligning high school to college. Themes from documentation, survey, and interview data are presented next.

Academic integrity. Process and structure of course alignment and teacher credential were important issues of academic integrity in this partnership. The college faculty stated, “Their course and our course are the same course.” High school teacher credentials, specifically the requirement of a master’s degree in the subject area, was identified as the biggest barrier by all four participants of Partnership 2. The college administrator pointed out that a master’s degree was not a requirement at the high schools but was a requirement at the college. The math college faculty participant acted as the liaison between the community college math department, the college K-12 Partnerships department, and the high schools offering CEP math because they were math faculty. The college faculty previously taught 17 years at a high school including CEP math. Once they left the high school, the high school was unable to offer the course without a qualified teacher. The college faculty liaison ensured courses taught at the high school had “the same requirements, same grading style, and faculty teaching equivalent to college adjuncts.” Partnership 2 documentation echoed that “specific curricula and grading meet the same standards as the equivalent courses taught on campus.”

The high school administrator oversaw the academy, where students earned their associate degree when they graduated high school, as well as oversaw the CEP English course. CEP is competitive and rigorous, likely capturing the most advanced students, providing options and choices for students according to the high school administrator who indicated that CEP was, “superior to AP because it takes the totality of the semester, which is a more accurate picture of student’s abilities while AP is performance only on the test.” They acknowledged that CEP English and AP English are separate classes in competition for the same students. The College Board markets AP and parents are

“bought into it” so high schools have pressure to offer it to the students according to the high school administrator. The high school teacher also mentioned that students are “terrified to get out of AP” as they are “afraid that it may make them or break them on their college applications.”

CEP English Composition I did not satisfy the high school literature requirement which could be a challenge for the high school according to the high school administrator. The high school English teacher offered the literature in the first half and writing in the second half of the year-long CEP course further stating,

> all of my students go to college. I think that discussing college, what it means, why you use it, what's important about it that those are the pieces that students, especially first-generation college students aren't aware of. But I don’t teach that to the general population. So there are other students at the high school getting it from their guidance counselors and all of that, but it's not the same as where I am [teaching CEP].

Student requirements according to the high school teacher consisted of a grade point average of B or better, placement test score, work ethic, and students who were mentally ready. Accuplacer was used for placement testing, which could occur at the high school or on the community college campus according to the college administrator. The college administrator identified that there is a possible future statewide initiative of the use of other placement measures as well. Partnership 2 documentation agreed with the grade point average, placement test or SAT, ACT, or PARCC scores. Documentation further established CEP eligibility as junior or senior high school student status receiving

parent/guardian and guidance counselor signatures and adhering to the college attendance policy.

Opportunities for students and institutions. All participants in Partnership 2 identified students as the center of the decision for offering CEP. The college faculty stated,

> the vision always has to go back to the students. If we're doing all of this work, and all of this paperwork and everything and it's not benefitting students, there's no reason to do concurrent enrollment, so I think the focus on this has to be how do we benefit students**.**

The college administrator identified the partnership helped to "make something better for students and to work together." This opportunity and benefit to the students was further substantiated by the high school teacher stating,

> it prepares them for college much more than their high school curriculum because it simply focuses on writing instead of focusing on literature. Unfortunately, the state standards require literature and that's why we can't do both Comp 1 and Comp 2 within their senior curriculum for CEP.

CEP was a method that "opens up their mind to the possibilities of coming to a community college, which maybe they hadn't thought of before," according to the college faculty. The benefits of recruiting CEP students to the community college were identified. The high school administrator stated CEP was an option to give students choices in high school and to establish relationships with the community college as an avenue for students.

College readiness. All participants believed that CEP prepared or maintained college readiness in students. The high school teacher suggested if students succeeded in CEP then they felt ready for college and it eased their expectation of college before they arrived. The high school administrator believed CEP was aligned with college readiness stating,

> when colleges see that a student has CEP coursework, that they've taken college classes and received college credit, it demonstrates that they have been successful in a college course, and therefore communicates to a college that they did well in these courses, they can do well in our course.

The college faculty agreed that CEP provided the opportunity to be college ready by giving students an idea of college level class pacing, expectations, and exams. Exams count as 70% of their grade. A high reliance on exams is an expectation of four-year colleges according to the college faculty, which influenced the structure of the college and CEP courses. The college administrator perceived CEP courses as foundational in areas that students pursued in college and provided future college success.

When asked about math college readiness with only three years of math required, the college administrator stated,

> We want them to take four years of college math. We don't want them to not take it that fourth year. If they are taking the math it keeps them still very strong in their math skills so that when they do leave high school and they have to pursue math in post-secondary education they're strong still in those math skills. It could be [the only math requirement for their degree] depending upon the major and

> where they're going. I mean there's so much of a variety of institutions and public and private you just never know.

Students participating in their fourth year of math, when only three years of math were required, helped to keep math skills fresh presented the college faculty stating,

> when they come to us, they've already got their Accuplacer test done, they've already got a course under their belt and so, for example if they're somebody who's coming into a science and they need Precalc 1 before they can take the science course, if they've taken Precalc 1 at their high school, then boom, they're already in. They don't have to worry about placing or taking remedial courses.

The high school teacher was a big proponent of all students taking four years of math which many did because "if they take a full year off, they'll forget it." The high school teacher also identified discussing what it means to go to college as a college readiness strategy.

Student engagement. Student engagement characteristics and intentional classroom engagement strategies were evident in the data for this partnership. CEP courses appeared on a college transcript which showed greater student initiative of learning in high school according to the college administrator. Student initiative was a characteristic of student engagement identified by the college administrator. The college administrator further identified that student engagement in CEP "exposes them to academic rigor of college and gives them a jump start on college learning and credits." The college faculty revealed that students enrolled in the high school CEP class could choose to participate in CEP to earn college credits or not. The course was offered for high school credit regardless if the student selected the college credit option or not. The

college faculty further stated that taking a fourth year of math when only three years were required kept them "engaged in their fourth year of high school." The high school teacher engaged the students with group assignments, experiential learning, and a method of "I do, you do, we do" limiting lecture to about 10 minutes a day. This allowed students to try assignments on their own and then connect with group work or conference with the teacher or another student. These institutional activities supported student engagement strategies in the classroom. Some students in the class were not CEP students but had the same expectations for the course but without earning college credit. They also had the added benefit of student engagement strategies in the class.

Collaboration and communication. All participants were involved in the collaboration although the high school teacher was the least involved. The high school administrator was on the college campus so often that they were asked if they had an office on campus. Their presence allowed them to succeed in establishing favorable connections between the high school and the college. The college administrator stated,

> We now have 17 different partner schools. Many different entities make those [CEP] decisions. It is not just something that's done in an isolated fashion with any of those partners, it's a meeting of the minds on various levels. A meeting takes place with our specific professor who's been deemed expert in that area to meet with the instructor on the high school and talk about the course, how the course dynamics should be in terms of syllabi, we share resources, we share textbooks information and then we at that point have a recruitment and informational session to share this new course offering with the students.

The college administrator believed collaboration was “very important because without their support we could not offer this.” The high school administrator agreed that the relationship “has to be collaborative. I don’t think we could have a functioning program with two entities where we didn’t have a say. It wouldn’t work real well.” The high school program of studies documentation further emphasized collaboration, “In partnership with [community college name], students will have the opportunity to earn college credit while satisfying the state English 4 graduation requirement. These requirements have been established through a collaborative process with [community college name].” The college faculty stated that the partnership with the high school was favorable without the college micromanaging the course since the teacher was qualified as an adjunct.

The college faculty stated that there were CEP meetings every other month between the K-12 Partnerships department and academic department CEP liaisons, but the high school partners do not participate in those group meetings. The college administrator admitted that there were no formal CEP meetings, but they did schedule meetings when there was a need. There were monthly meetings for the academy steering committee that consisted of the Director of K-12 Partnerships, faculty, advisors, and the high school administrator involved with the academy. The meeting was typically held at the college with the Director of K-12 Partnerships preparing the agenda.

The high school teacher felt the relationship was positive, cooperative and favorable with the community liking it, although they were not involved in the CEP administration and their experience with the college faculty liaisons had been mixed. The high school teacher received constant communication for the Academy Student

Development course but had little contact with the CEP English liaison clarifying, “it's just here’s the test and here's the syllabus. Let me know if you have questions. That’s all. That’s all I get.” When the English curriculum changed there was one meeting on campus held in the late afternoon so CEP teachers could participate informed the English teacher. The previous English chair held CEP meetings for professional development to read the rubric, etc., which was “very helpful allowing teachers to make sure they are doing what the college expects,” according to the high school teacher.

Partnership 2 collaboratively developed a unique plan for the $200 CEP tuition per course, which is “roughly one-third of the cost of a typical 3 credit course,” as stated in the documentation. Partnership 2 documentation further presented that they applied $100 of the tuition to supporting the CEP program with $75 per student going back to the school district and $25 per student set aside in a “CEP restricted account for scholarships or other program support.” This model allowed for incurring the cost of instruction and for scholarships for low income students or other needed resources supporting CEP.

The high school teacher identified some shared resources such as shared curriculum, shared tests, and an available resource page. The college faculty were available to high school personnel to build cooperative relationships and make sure everyone was on the same page. When one school began a new CEP course the college faculty provided a workshop reporting,

> They had put the course on their books, they had started signing students up for it, and we had no information from them, and finally figured out that they needed more information from us about this course because it was Quantitative Reasoning, so it’s not your traditional Precalc 1, Stat 1, it’s a very different type

> of course, so we ended up holding a workshop here in May for them, where we brought in the faculty who would be most likely to teach the course. I guess they hadn't scheduled it at that point, but they brought in a few faculty members like the department chair and a couple other people just to learn from us what is concurrent enrollment, what kinds of expectations do we have, and then we spent some time.

This type of collaboration and direct communication was supported by collaboration categories of membership involvement, teamwork environment, and open communication.

Transfer. Participants were aware of the transfer opportunity of CEP credits and that the ultimate decision of transfer was up to the receiving college. The college faculty reported that CEP credits appeared on the community college transcript so any college that accepted their community college credits accepted CEP credits. Students could apply their credits to the community college degree or take them somewhere else according to the college faculty. The high school teacher agreed that English I college credits typically transfer anywhere with most colleges accepting the CEP credits for English, but some colleges accepting the CEP credits as elective credit. English "is a course that is easily transferable," according to the high school administrator, but one college

> is a stickler about their degree requirements and credits, and they would not take the English Comp I [CEP] course. And since then, we've really hammered home, we meet with students about their enrollment in the course prior to them signing up for it, check with listed schools and, maybe have a conversation with that

> institution about whether or not this course is transferable. We don't have many that say, 'No, we're not taking it,' but occasionally we do.

CEP documentation reiterated "transfer equivalence decisions are made by the receiving college" and directed students to the official website for New Jersey transfer to locate information about course equivalencies from the community college to four year colleges and universities in New Jersey. Documentation further identified, "College credits earned can be applied toward [county college name] degree programs. Students choosing to attend other colleges must have an official academic transcript sent to that college." The college administrator stated that CEP credits transfer well in New Jersey because of the Lampitt law, but it is up to the institutions where the students attend to decide on transfer credit. The college faculty was aware that some CEP students earned three to six, even 12 credits and that some CEP students came to the community college but was unsure where CEP students went after high school.

Conclusion Partnership 2 findings. Partnership 2 scored the lowest mean score of 3.3 on the collaboration survey (Table 6) and was the second youngest partnership with five years of CEP service (Table 5). Partnership 2 high school teacher would like to see more communication and collaboration with the English teacher but does enjoy constant contact from one faculty liaison. Academic integrity was maintained by offering the same course at the high school with the same teacher qualifications, but the teacher credential was a challenge. Benefiting students with CEP opportunities and creating a path to college were identified as opportunities for students as well as a path to community college as a benefit for the institution. Students showed initiative taking CEP classes and student engagement strategies were evident in the classroom. According to

Partnership 2 documentation the partnership uniquely set up a scholarship fund possibly removing an access barrier for low income students. Not having regular CEP meetings supported the low score on the collaboration survey for the factor of open and frequent communication of 2.7 (Table 6). Transfer was identified as good with the final decision up to the receiving college.

Partnership 3 Findings

Overview. Partnership 3 had a total mean collaboration score of 4.5 out of 5.0, which was the highest of the four partnerships with all categories over 4.0 on the collaboration survey (Table 6). According to Mattessich et al. (2001), scores of 4.0 or higher may represent strength in the partnership. Partnership 3 had the second highest number of years that participants were involved in CEP (Table 5) at six years with a range of four to eight years. Their highest category was membership characteristics (Table 6) including the factor of members seeing collaboration as being in their self-interest having the highest score possible of 5.0. This meant that all four participants answered questions related to this factor with the highest option identifying the benefit of the collaboration (Mattessich et al., 2001). The lowest factor mean score in Table 6 was 3.8 for engaged stakeholders under the resources category. The following themes emerged from the documentation, survey, and interview data for Partnership 3.

Academic integrity. Partnership 3 maintained academic integrity by offering courses that align with the community college and were taught by high school teachers with credentials approved by the college according to the Partnership 3 documentation. The college administrator stated they had a structured model of pre-approved courses that high schools selected from and that new high school partners started with AP courses

combined with CEP. AP and CEP were expected to be available to students according to the high school administrator stating,

> I think this is a pretty high-powered district and just in terms of what the expectations are so you know having an AP program and having the concurrent enrollment option is an expectation in this district. Ninety-four percent [of the student population] go to college.

Partnership 3 documentation stated that students must apply for college credit at the start of the class to earn college credit for grades C or better and had to also "earn a 4 or 5 on the AP test to be eligible for college credit." The high school administrator admitted that their partnership was almost exclusively AP for CEP credit with "the College Board providing all resources" and reported that students were required to take the AP test, which "ensures rigor."

The college administrator explained that the high school course ran regardless of the students taking it for CEP credit. "So, if there are 20 students in the class there might only be five who are getting college credit. The high school was going to offer that course either way," explained the college administrator. The college faculty was "not at all involved" with the CEP partnership stating that CEP falls under their enrollment management department in charge of college programs and deferred to CEP administrators for answers about the CEP partnership. They were aware of high school students on campus taking college courses, but they were not familiar with the college courses taught at the high school. The Associate Provost, who was not participating in my study, managed the high school teacher and course approvals according to the college administrator, which may be why the college faculty was not involved. Teacher

credential was not a barrier as the high school administrator stated, “most of our teachers are masters bearing in their area or they have the prerequisite number of years of experience to be considered in some cases.” The high school teacher was not involved in the CEP partnership but taught the CEP course, which prepared high school students at the same college level as the universities.

One recent change was that the college no longer offered Latin on campus and discontinued the CEP course. The high school administrator had been looking unsuccessfully for a partner but “because I’m only looking for one course, they don’t care about me.” A university offered a full catalog of CEP courses, but the high school administrator said there was a “huge commitment from partner schools” and they did not “want to break up with the community college” because “we love them.”

The college administrator stated, “the college and the high schools both provide a lot of resources to this program, especially in the form of time, but they aren't necessarily shared resources.” There was evidence that the college and high school provided the resources needed to offer CEP courses.

Opportunities for students and institutions. Student opportunities and opportunities for the community college were identified along with financial barriers. “It is about how we help kids get ahead” not about helping students to be college ready according to the high school administrator. The college faculty reiterated,

> If a student wants to get a good number of credits established or out of the way before they come here, it's just a better use of their time and I think we owe it to the community to give students that option.

The high school teacher stated that CEP gave students the opportunity to "see academic rigor required in college." The college administrator indicated that,

> Our foreign languages are equivalent to 12 credits for an AP course. Basically, on the premise that if you can pass the AP course that is equivalent to a 202 [college level course] so why would we not give you credit for the prerequisite of that course. So that's 12 credits.

Partnership 3 documentation provided an example that AP French Foreign Language at the high school with equivalency to Elementary French I & II and Intermediate French I & II allowed students to earn 12 college credits when taking one CEP course.

The high school administrator said, "It's a moneymaker" for the college. The college administrator stated, "It benefits us, and it benefits the students" because it is a revenue stream and potential enrollment stream with "about 25% coming to the community college, 50% going to other colleges." Recruitment of students benefits this partnership.

Documentation indicated that the tuition rate was $150 per course with an even deeper discounted rate of $100 per course for students participating in free and reduced lunch. The reduced CEP rate of $100 "could be a month's worth of food" for someone in the free and reduced lunch program, stated the college administrator. This could be a financial and access barrier for low income students interested in CEP. Expanding on the financial need the college administrator further stated,

> There is no financial model in the state to encourage, support, push concurrent enrollment specifically for low income students and because there's no financial

> model for it, it's very difficult for the schools both the high schools and for us to be able to expand to the students who most need that access to college.

Students who “didn’t know that we were an option for them are often exposed for the first time to the community college” the college administrator emphasized and explained,

> So, one of the things that we have done, and this is specific to not just encouraging a path to college but a path to us is that we make the assumption that our concurrently enrolled students are looking to be in college. And so, we have some events that we do that are specially designed for encouraging their enrollment with us. One of them is called a red-carpet event. We do it once a year and it's designed for high achieving students, which fits the profile of many of our concurrent enrollment students. And what we're basically doing is we bring them to campus and it's the one time of the year really when our primary message is not about affordability or access. It is about high academic quality and rigor.

New Jersey required that students cannot count in college enrollments unless the institution bears the cost of instruction according to the college administrator. The college administrator explained that they currently have two types of partnerships, one with in-county facilities providing no cost of instruction and the other with new partnerships paying the equivalent to an adjunct instructor rate for 40 students. This payment signified the cost of instruction allowing the college administrator to include CEP students in their college enrollments. They actively encouraged the high schools to provide scholarships for students with the funding, but they could not tell the high school how to spend the money.

The high school administrator provided an example of their costs associated with offering a CEP combined with AP course stating,

> we have to look at what's the financial commitment. So putting up a new course costs money. Particularly putting up an AP course. If it's a new course we're talking about training for the teacher, which could be somewhere in the neighborhood of five thousand dollars for the Summer Institute. Then we're looking at materials, instructional supplies, textbooks, so I would say to start one section of the class it probably cost us somewhere in the neighborhood of twenty five thousand dollars. And then if you have a class like AP Psychology that just explodes into five sections and textbooks are a hundred dollars apiece and you have continuing ongoing cost.

These were examples of student and institutional challenges in offering CEP courses that could impair the opportunities for students and institutions. Financial barriers were identified for some students as well as college and high school partners, especially those offering CEP combined with AP because of the associated cost for AP courses.

College readiness. CEP may not have been implemented to address college readiness, but CEP supported college readiness and getting students ahead. The college administrator guessed that students were college ready anyway and most would not enter college into remedial courses further stating that CEP "supports college readiness, but that's not the intent." The high school administrator agreed, "they are already college material." CEP helped maintain college readiness according to the high school teacher, but also stated that "99% of students would take the fourth year of math regardless of

CEP.” While CEP was seen as supporting college readiness, because of the college-going environment, almost all students took a fourth year of math.

The college faculty felt that general education credits were the most important credits of a student’s college career with English 101 being the most widely enrolled course. English 101 is a college level course often aligned with the high school English course to be offered for CEP. The college faculty stated,

> Since fall 2017 [with] our accelerated learning program I'm brought in as the coordinator of English 101, it's like developmental what they do, and they focus on it as kind of a concurrent enrollment between developmental and primary English so they have a student who takes English 080, but they are automatically concurrently enrolled in English 101. Half of those students have no need for remediation and the other half based on SAT scores, placement test results, whatever, they showed a need for remediation so they go into the English 101 class but then immediately after that three credit course will stay for an additional developmental, another three credit class would occur more or less two days a week and it would be dedicated towards the developmental remediated instruction, the focused instruction. It's within that spirit that we reinvigorated these talks with the high schools. It's in theory going to decrease attrition and enable students to take courses quicker and carve through their pathways quicker because English 101 is a co-req for a large number of natural courses.

Offering a college and career readiness course in 9th or 10th grade and with “teachers talking about college” provided college readiness strategies for students according to the high school administrator.

Student engagement. The high school administrator illustrated that their high school was very academic providing student support with a tutorial period where all teachers were available, which "helps students to feel confident about their future." The high school teacher emphasized that the high school CEP course was a smaller class size, providing more individualized attention and instant feedback. Expectations, academic support and feedback to students were identified in Tinto's (2012) institutional framework for student engagement and provided student engagement classroom strategies.

The "college going environment" and knowing "they need four in their core" prompted students to take a fourth year of math, which showed student initiative, according to the high school administrator. "Students take AP to get into my class" stated the high school teacher talking about the CEP math course, Multivariable Calculus and Differential Equations. The high school administrator suggested that one-third of freshmen came in with Algebra and that Algebra II was needed for the CEP math course which accommodated about a dozen students. The high school teacher understood that students needed to work together stating, "that's totally normal. It's the standard in the real world." Students applied what they learned in the CEP math course by doing computer programming and 3D graphing and saw what functions looked like according to the teacher. These academic strategies in the classroom supported the institutional framework for student engagement (Tinto, 2012).

Collaboration and communication. All participants appreciated the partnership even if they were not all completely involved. “It's collaborative because we cannot force the high schools to do anything. They can't force us to approve anything we don't want to approve,” according to the college administrator. Collaboration was purely administrative according to the high school administrator who jokingly said, “They’re bossy. It’s their show because it’s their transcript and credits.” The high school administrator further revealed that high school teachers “don’t even think of themselves as college adjuncts” because “there is a huge disconnect there. Part of it is us, part of it is them.” The high school teacher agreed that they were not involved in the CEP partnership and stated it was not in their contract. The high school teacher shared that they started at a community college and teach at a community college, and further reiterated,

> I teach at a community college so I have like firsthand knowledge of what they require, but I don't interact with any high school teachers when I teach there and as a high school teacher I don't interact with the college professors as well.

The high school teacher recounted that being in an upper-class high school, community college may be looked down on, but in lower- and middle-class districts community colleges are very favorably viewed and much more affordable.

The college faculty perceived the relationship between the community college and the high school as “neutral with potential to be better” and that “both parties were interested in that happening.” Discussions about English competencies between community college and high school were positive with modifications made on both ends to match writing requirements. They used Google e-mail and docs to follow messages and reflect on discussions according to the college faculty.

Although the high school administrator observed that professional development between the college faculty and the teachers was desirable to help create relationships, the college administrator agreed they are not there yet. In addition to setting aside egos and acquiring funding for a lot of high school districts to participate with the college, the schools may not allow this to happen during the school day as they would need to hire substitutes. The teacher's union may intervene if it is held after school as the teachers may need to be paid or possibly volunteer likely reducing the number of participants. The high school administrator doesn't know "if college professors are interested in meeting with high school teachers. What benefit is there to them?" The high school administrator felt the community college personnel were respectful when they reached out to the high school for help with their Middle States Commission on Higher Education (the regional accrediting agency for community colleges) goal to moving toward shared assessment for CEP.

Transfer. Participants perceived transfer as equivalent to college credits taken on campus but claimed that they could not guarantee transfer. The college administrator reported that CEP courses appeared on the college transcript, so most colleges accepted them as they did their regular college credits, but transfer was "within the decision-making of the receiving college." High school parents and students were told they "guarantee nothing" about transfer according to the high school administrator. The college faculty suggested,

> In theory it would be equivalent to any other school with which we have an arrangement. If a student were to earn those through CEP in their high school years that enables them, or if they were to transfer [to other colleges] they would

accept those just the same. So that's that. I am aware of very little pushback from transfer schools looking at credits earned under CEP.

The college faculty said that Middle States Commission on Higher Education gave them a reputation for their course standards that "are vigorously upheld to keep that transferability" especially for "gen. ed. courses" that were seen as gateway courses to college programs.

Conclusion Partnership 3 findings. Partnership 3 was the second longest partnership participating in CEP with six years of experience (Table 5) and boasted the highest mean score of 4.5 on the collaboration survey (Table 6). Offering CEP with AP courses was common focusing on high achieving students. CEP supported getting students ahead as well as increasing college enrollments. Students were seen as engaged and college ready. The high school administrator observed the partnership as purely administrative with a defined process and structure. The high school teachers did not see themselves as community college adjunct faculty. The college faculty and high school teachers were minimally involved in the CEP partnership. Uniquely, students earned college credits for prerequisites such as earning 12 credits for a foreign language course according to the college administrator and the documentation. The college administrator identified financial barriers for low income students even with a discounted rate of $100 per CEP course, which could feed their family for the month.

Partnership 4 Findings

Overview. Partnership 4 had the longest years of CEP service at 6.75 years with a range of one and a half to 20 years (Table 5). The Adjunct Professor – Social Studies Teacher participating as the college faculty had the highest number of years, out of all participants, involved in CEP for 20 years. This participant became involved with CEP when it was implemented. They are employed at the community college and high school. Partnership 4 had the second highest total mean collaboration score of 4.1 with all categories over 4.0 except the category of process and structure at 3.9. Mattessich et al. (2001) describes partnerships with mean scores of 4.0 or higher as strong collaborations. The highest category at 4.9 was for membership. Partnership 4 had a perfect score of 5.0 for the factor of members seeing collaboration being in their self-interest. The lowest factor of 3.4 was the evaluation and continuous learning factor. (Table 6). Partnership 4 themes for documentation, survey, and interview data are presented next.

Academic integrity. Participants identified the process and structure of CEP as maintaining academic integrity with little challenges. The college administrator described their CEP courses as embedded courses and emphasized that they have partnerships in all comprehensive and vocational high schools in their county. The high school administrator identified roughly 15% of students participating in CEP at their high school. The high school teacher was the instructor of ENGL 151 Intro to Composition, a CEP course, equivalent to the first level college English course. Courses aligned well according to the college administrator. Practical courses such as basic algebra, survey of math, statistics and probability were offered mostly to seniors to satisfy courses students take in their freshman year of college according to the high school teacher. The college

faculty stressed that “No matter what college you go to it’s the same information because calc is calc.”

With 20 years of service in the CEP partnership, the college faculty had both experience as the liaison between the college and high schools and as a CEP high school teacher. The college faculty was involved in the startup of the program with one other college administrator as a “power player” or “catalyst” for promoting CEP. The Tech Prep grant in 1995 was responsible for the initiative to create college and high school partnerships. According to the college administrator, the partnership has grown to 1,300 students. The high school teacher used the college text, materials, and followed the college semester for CEP course alignment. “My class may be the first college class they take,” expressed the high school teacher. The high school guidance counselor acted as the CEP liaison with the college according to the high school teacher. A mix of college academy and high school seniors filled the CEP English class, but the high school also offered other CEP courses such as math, Creative Writing, and Psychology stated the high school teacher. The college faculty was instrumental in bringing CEP to the high school where they are also employed. Partnership 4 documentation identified earning college credits while in high school with a tuition fee structure that included a trustee discount which could identify a favorable political climate with trustee support.

Middle States Commission on Higher Education regulations capped the number of CEP credits earned at the high school at 30 credits per the college administrator. The Memorandum of Understanding clearly showed policy guidelines with a maximum of 12 credits per semester. The high school administrator said that many students earned nine credits with the core of math, English, and history CEP courses. The partnership began a

college academy where students could earn an associate degree while in high school, but to honor the 30 credit CEP limit, 10 courses were taught at the high school and 10 courses would be offered at the college.

The college administrator reached out to Middle States Commission on Higher Education to overcome the barrier of teacher credentialing with the college requiring a master's degree in the subject area and the master's degree not required at the high school. Middle States Commission on Higher Education offered a benchmark of a bachelor's degree plus five years of teaching experience to be approved as a CEP teacher according to the college administrator. The college faculty, also a CEP teacher at the high school, stated that their high school hired new teachers with the credential or requisite experience, but the high school administrator indicated that they had minimal problems with qualified teachers.

Opportunities for students and institutions. Student opportunities included experiencing college courses and the opportunity to complete an associate degree. In addition, the institution had the opportunity to count CEP in their college enrollments. The high school teacher revealed CEP gave students the opportunity to experience a college class. The high school administrator agreed the shared vision was to provide opportunities for students to be exposed to collegiate courses as an advantage for their future. The college faculty saw an opportunity for students that they did not previously have to get ready for jobs of the future. The college administrator reiterated "oftentimes student don't think they can do it" until they participated in CEP and gained confidence. The college administrator stated,

> we were looking specifically at those middle students. There's always something just for the lower level kids, AP is for the higher level kids, so we were saying there's a group of kids and no one's approaching that have not made a decision, because they want to go to college, but they just don't have enough understanding of college to say, you know, to put their stamp on it. So, what we did is we really looked at those kids and say okay what kind of courses can we offer to get those students into the program.

College is expensive and CEP students could get a leg up with a good start to save time and money at the convenience of their high school, stressed the college faculty. CEP courses advanced what they already offered at the high school and exposed students to college culture according to the high school administrator. The high school teacher revealed,

> They know their teachers. They probably have had this math teacher. And I know it's stereotyping but we, I think we're more, I don't know, maybe I shouldn't say it but, I feel like we're very likely to offer assistance more than just an hour, an office hour.

The high school teacher stated that the students get more hours of classroom time in CEP courses than on the college campus.

The college administrator reported that the college pays the adjunct rate for every course offered at some high schools and incurred the cost of instruction. Some students were then counted in their college enrollments according to the college administrator. High schools that received county funding did not fit this model.

College readiness. Preparing students for college and providing opportunities to get ready for college were identified in this partnership. “College readiness without a doubt” was the motivation for offering CEP courses according to the high school teacher. The college faculty agreed stating,

> the biggest thing that helps with college readiness is giving them the challenge, that high critical level thinking challenge. We’re providing them with a little taste, almost like a training so to speak, to get them ready for the higher level stuff, so when they get to college, they’ve done some of the work already, so it’s not foreign to them. It’s like, you know, I’m not a runner, but you don’t just jog a block to get ready for the New York City marathon. So, we let them warm up. It’s a huge factor for us to help give students one more tool to be ready for college, because we don’t care if you’re smart or this or that, college is different. It’s a different dynamic.

“We’d like to think that the students taking these courses are college ready,” explains the high school administrator. Partnership 4 brochure about earning college credits while in high school indicated that some courses such as English or math may have prerequisites that students need to demonstrate college readiness through qualifying standardized test scores or by completing the Accuplacer test with a sufficient placement score. While Accuplacer was sometimes seen as a barrier it was also the “gold standard”. Other measures are also now being used to assess students according to the college administrator.

The high school teacher admitted,

> We hear all the time that students are not prepared for college when they go into a 151 course, and I'm sure the same for the math 101 courses at any college. And I think we do a very good job. So, when they go to college after taking this class, and many of the classes that are offered here, I truly believe that they are college ready. It absolutely helps with college readiness.

The college administrator agreed that taking two benchmark or gateway courses in CEP math or English and passing them gets students ready to be successful at the college level. “Once students feel confident in one of those two classes, they are ready,” reiterated the college administrator. The college faculty also agreed that CEP math and English helped with college readiness. The high school administrator stated they were getting students to take a fourth year of math and that it maintained math college readiness.

Offering CEP math gave students an extra reason to participate in math in their senior year because they earn high school and college credit for the same course according to the college faculty. The high school teacher stressed that taking math in their senior year absolutely helped them to maintain their math skills. A lot of knowledge was lost in the one or two years out because they may not be taking math in the freshman year of college and they do “horrible” with a lapse of time according to the college administrator.

While CEP helped prepare or confirmed students are college ready in their senior year, if students are assessed and are not ready, they can still participate in CEP with support revealed the high school administrator. This unique purpose of offering ALP

(Alternative Learning Program) was rolled out through the state College Readiness grant according to the college administrator who stated,

> I'm trying to get more of a co-req model into the high school so the English course with the co-req really using either our Ed ready software that we have or a class for college readiness or whatever class we want to call it but as I said we're seeing a lot of kids just test into needing that co-req. So that's going to be something that we're trying to push into the schools. We have them. I have two right now through the College Readiness Grant at the local high school in math doing statistics. Half the class tested into statistics half didn't and the half that didn't, they have a lab and then they also have access to the software. That's going to be a yearlong course this year. And then one at the high school was a semester long course.

The College Readiness Now program brochure informed, "The purpose of the program is to help all students achieve college and career readiness skills." The high school teacher further explains,

> Students who go to even a community college or any college usually have to take Accuplacer or a placement exam and many students have to take remedial courses. And the statistics of holding those kids, retaining those students in college are very low once they take the remedial courses, so they developed this ALP which is Alternative Learning Program. What it is, is that students go to a three-credit college class and receive three credits, they pay for it and they receive it, where that remedial class they would pay for it and not receive credits. But then they go to an additional writing lab which is an additional class with the

same teacher. It's very important that they go with the same teacher, and the success rate is much higher.

This program provided opportunities for students to become college ready.

Student engagement. According to the college administrator, CEP is offered to get students engaged. Students can "go to college now with some confidence" emphasized the high school teacher feeling the teachers were successful in 'creating a better student'. Students have responsibility to read agendas and complete assignments which mimicked the college dynamic stressed the college faculty. Notetaking, critical reading, citing research, organization skills, and time management were college skills students learned in the CEP English course according to the high school teacher. The high school administrator stated that CEP classes maintained a collegial atmosphere as an expectation with students communicating directly with the teacher and not the parents. These are examples of student engagement characteristics and institutional strategies for student engagement.

Collaboration and communication. The high school administrator said that the college representative was at the high school so much that they might as well have an office there. The college administrator agreed that they could get an office there because they were in constant contact with the high schools, and stressed "it's got to be a partnership," "it's got to be collaborative." The College Readiness Now brochure clearly described under the program description that this was a collaboration between the high schools and the college. The college administrator further stated that they have their own high school e-mail address. They also participated on the K-12 curriculum committee,

monthly high school counselors and college admissions personnel meetings, and met with parents so they understand this is serious because “Fs do not go away.”

The college faculty believed they were “truly partners” with the college as the trainer and further identified that the partnership as cooperative, challenging, and positive. The college faculty stated,

> The college hosted a meeting on campus, to be kind of a central point to meet. So, they provided us meeting space and resources to make it easy for us to meet commonly to at least talk about a little bit what we’re doing, what we’re not doing. So, that’s a key one because they’re essential. So, that was a huge thing they did last year and we haven’t figured out a day yet but we’re going to do it again hopefully this year.

The high school administrator agreed the partnership was very cooperative, very positive, and collaborative with anything they needed accessible to them. The high school administrator stated, “each one of us knows what we’re doing.” The high school teacher was aware that there were meetings at the high school but they were not involved and stated that meetings involving the college and teachers were “not often enough. Can I say that?” The high school teacher was one of the first to teach a college class at the high school and further stated, “we’re just told what class we’re teaching.”

Although the high school teacher was not involved in the meetings, they still described the partnership as favorable and very supportive noting that the college administrator stopped by the classroom on occasion. The college faculty perceived the partnerships as excellent, favorable, and very supportive further explaining mutual respect by stating,

> Hopefully, he doesn't think I'm horrible. He's known I've done this for a long time, so I hope he respects what I've done for all these years, and we've talked together, we have a relationship there so, respecting that I am a professional, and that I am a high school teacher but I'm also a college professor and that I have credible experience.

The college faculty also pointed out that the college trusted high school teachers to teach college courses showing a great example of different educational institutions and different levels coming together that was "powerful."

Transfer. Forty-five percent of CEP students came to the community college and quite a few went to the four-year universities, but some returned after their first semester to the familiarity of the community college according to the college administrator. The college faculty differed in their answers stating that most CEP students attend four-year universities and only about 10% came to the community college taking with them an average of 18 to 20 credits. The high school teacher estimated that some students came out of the high school with 12-18 credits. Memorandum of Understanding documentation indicated 73 course possibilities offered to high school students. Students went to state and community colleges except the college academy students who entered four-year universities with junior status according to the high school administrator.

The high school teacher referred to the Lampitt law requiring colleges in New Jersey to take all community college credits but stated that unfortunately some colleges accepted CEP credits as elective credits. The college faculty warned that some colleges were taking all CEP credits as elective credit. According to New Jersey Statutes 18A § 62-46 (2008), an associate degree is fully transferable toward a baccalaureate degree but

transfer of college credit without a degree is at the discretion of the receiving college. The high school administrator noted that Ivy League colleges would not accept CEP credits and as we know they will not accept any other college credits. One student was not on board with CEP until they called the college they planned to attend and found out the college would accept CEP credits and then scrambled taking more CEP courses according to the college administrator. The college administrator discussed some work-around ideas to present the college transcript without saying the courses were taken in high school since the admissions people do not clearly understand CEP and could overlook the credits. The college administrator also referenced if parents were concerned about accessing freshman scholarships that they could wait to present their college transcript after their freshman year in college.

Conclusion Partnership 4 findings. Partnership 4 had 6.75 years of experience with CEP, which was the longest of all the partnerships (Table 5) and ranked as the second highest mean collaboration score at 4.1 (Table 6). Broad coverage of CEP in the county was evident with the college administrator stating the college had partnerships with every school district. They had a large list of courses which partners could select from. This partnership also had the participant with the longest years involved with CEP at 20 years of experience and involved in the startup of CEP. Some CEP courses were embedded in AP courses. CEP offered opportunities for students especially with the unique perspective to reach middle level students and implementing ALP. CEP provided an institutional benefit allowing students to count in their college enrollments for those schools where they incurred the cost of instruction. College readiness and student engagement were supported by the data in this partnership. Collaboration factors were

evident and although the high school teacher was not involved except to teach the course, they felt the partnership was favorable. About 15% of students at the participating high school took advantage of CEP and attended the community college. Even with the New Jersey Lampitt law in place for transfer of college credits, the challenge of receiving colleges accepting CEP credits only as electives was identified. The teacher credential challenge of requiring a master's degree was alleviated by the Middle States Commission on Higher Education requirement for the teacher to have a bachelor's degree and five years of teaching experience. This concludes all partnership finding summarized next.

Summary of Partnership Findings

Partnership 1 was the youngest partnership with the second lowest collaboration category score. CEP English was offered in combination with AP but will likely be separated due to different requirements. Students not college ready could attend a boot camp at the community college. Partnership 1 collaboratively allowed credential by exception for high school teachers without a master's degree in the subject area. Teachers could take a graduate level course to qualify as a CEP instructor.

Partnership 2 had the lowest collaboration category score of all partnerships and was the second youngest. CEP meetings held at the college did not include the high school. The high school teacher had good communication with one faculty, but limited communication with another. The college faculty ensured the courses were taught the same as those on the college campus with the same tests and was not micromanaged since the teachers were qualified as college adjunct faculty. Master's degrees in the subject area without exception were required of high school teachers to teach CEP.

Partnership 3 had the highest collaboration score and the second longest years of experience with CEP. This partnership was highly administrative and prescriptive with a list of available CEP courses that high schools could select from; many were AP combined with CEP. Partnership 3 had a college academy program with students earning an associate degree at the same time as their high school diploma. CEP courses were mainly geared toward high achieving students. Rates were discounted, but there was concern that even $100 for the course could be a financial barrier for some students. Students earned CEP credits for the course as well as credits for prerequisite courses. For example, students earned 12 credits for a language course, which included the CEP course and all prerequisites.

Partnership 4 was the longest partnership and had the second highest collaboration score. This partnership had a college academy and combined AP with CEP, but also focused on the middle-achieving students and offered ALP. ALP allowed students who were almost college ready to attend CEP courses with support enabling them to earn college credit. Partnership 4 community college partnered with every high school in their district. The college faculty participant was involved for 20 years including the startup of CEP.

All participants contributed to the findings of New Jersey community college and high school CEP partnerships. Participants were involved with CEP partnerships from one to 20 years with the mean number at 5.625 years (Table 5). Collaboration scores for the partnerships ranged from 3.3 to 4.5 with a mean score of 3.8 (Table 6). Table 8 tied the collaboration categories with the themes emerged from codes in the intersection, which is further explained in the cross-case findings.

Cross-Case Findings for All Partnerships

Overview. Data and themes presented above by each partnership are now examined across all partnerships to explore the similarities and differences among the partnerships. Themes gathered from participant interview, documentation, and survey data are triangulated in this cross-case analysis and findings section. Table 8 depicts the collaboration categories with the codes that emerged into the themes at the intersection of collaboration category and theme. Cross-case similarities and differences are presented by theme followed by a conclusion of the cross-case findings.

Academic integrity. Academic integrity refers to the principles of behavior in educational settings with a commitment to responsibility, respect, trust, and fairness (International Center for Academic Integrity, 2019). Qualified teachers maintained academic integrity in the partnerships with responsibility and trust in delivering CEP courses aligned to those offered on the college campus. High school teachers were vetted by college faculty or other designated college personnel to ensure they were qualified as a college adjunct to teach the CEP course. The requirement for a college adjunct was a master's degree in the subject area, which was not a requirement for high school teachers to teach high school courses. Teacher credential was identified as a barrier to offering CEP. One partnership requested that Middle States Commission on Higher Education provided guidance for the barrier of teacher credentialing and established criteria of a bachelor's degree plus 5 years of teaching experience to qualify as a CEP teacher. Another partnership created an option of a credential by exception allowing the high school teacher to take a graduate level course in the subject area to qualify as a college

adjunct to teach the CEP course. One college made no exception for CEP teachers to have a master's degree in the subject area.

CEP structure was identified as college academies, CEP courses combined with AP, and ALP courses offered for CEP college credit maintaining academic integrity which intersected with the process and structure category (Table 8). College academies were identified in three out of four partnerships where students meeting the criteria earn an associate degree while in high school. Many took a combination of CEP courses and courses on the college campus in the academy structure. CEP courses combined with AP were identified in three out of four partnerships. One partnership reported that CEP and AP had different goals and perceived CEP as superior because it considered the totality of the course, not just the results of one test and provided college credits on a college transcript. ALP courses were seen in two out of the four partnerships and will be discussed later in the college readiness theme. College faculty were adamant in the alignment of CEP courses that the high schools offered providing shared textbook information, exams, and practice tests to the high school CEP teachers.

Engaged partners, years of CEP service, favorable environment or participants not involved fit into the academic integrity theme intersecting with the membership and environment collaboration categories (Table 8) because they connected to responsibility, respect, and trust in the partnerships. All participants except one agreed that the environment of the partnership was favorable and in their best interest to offer CEP. The one participant who did not see the environment as favorable was mainly functioning outside of the CEP process. High school teachers were essentially not involved in the

CEP administrative functions and decisions of the partnership but saw the value of CEP and teaching the same curriculum.

Opportunities for students and institutions. CEP provided students with opportunities to experience college coursework and accumulate college credits. Opportunities for the community college were uncovered as well. CEP provided the opportunity to recruit students as an institutional recruitment strategy and to count CEP students in college enrollments. The purpose category and the process and structure category intersect with this theme showing the student and institutional opportunities codes (Table 8).

All participants in all partnerships envisioned CEP as providing opportunities for students to participate in a college course. All partnerships recognized that CEP allowed students to get ahead by accumulating college credits in the convenience of the high school setting. All partnerships offered CEP courses at a reduced tuition rate allowing students to save time and money on their college careers. Exposure to college coursework provided a more cohesive pathway to college showing students the content and what would be expected of them in college, such as reading a syllabus and being responsible for their assignments. Several participants mentioned that CEP gave students the ability to try a college class that maybe they did not think they could do. One partnership offered students the ability to earn credit for the CEP course and prerequisites. For example, they identified the possibility of earning 12 college credits for a language course once the prerequisite credits were added to the student's transcript.

While the opportunities for students were in the forefront, participants also noted that offering CEP was in their own self-interest. Three out of four community colleges

incur the cost of instruction (pay the high school a fee for offering CEP) in order to count CEP students in their enrollments. One partnership boasted that CEP held their enrollments up while other community colleges in New Jersey experienced declines. High school partners tended to believe that community colleges were making money on CEP, not only with the CEP tuition, but by enticing students to take summer or night courses at full tuition or as an enrollment strategy. Almost all partnerships recognized that community colleges recruited students to earn their associate degree with their accumulated CEP college credits. One partnership held a red-carpet event specifically aimed at high achieving students and showcased their honors college and rigorous programs that they offered at the community college.

College readiness. All partnerships agreed CEP helped students to be prepared for college or maintained student college readiness. While some participants identified that students were already college ready based on placement testing and would not likely enter college in remedial courses, CEP courses were identified as showing what would be expected of them at the college level. College readiness is my conceptual framework studying partnerships that offer CEP math and English. CEP general education courses were identified as foundational to other college coursework preparing students for college success. College readiness intersects with purpose as well as membership identifying advanced students and strategies for learning college readiness skills (Table 8).

All high school administrators identified CEP students as the most advanced high achieving students. CEP partnerships identified providing higher level course options with rigorous course content could jump start college careers. Two out of four high school partners provided college readiness strategies early in high school to prepare

students for college. One high school partner provided a college and career readiness course in the 9th and 10th grades while the other high school offered an Accuplacer preparation course to give students experience in taking the placement test. Most partnerships described Accuplacer as a barrier to CEP and college with some partnerships including or planning to include multiple measures to assess student readiness for CEP and on their college campus. Three out of four partnerships offered a college boot camp or ALP for students who did not reach the Accuplacer score for college readiness. Admission criteria may limit those students entering CEP courses. One partnership uniquely noted non-math and non-English based courses that were open access and did not require Accuplacer testing.

Most partnerships agreed taking a fourth year of math when only three years are required supported college readiness for math skills by keeping math concepts in their minds. A lot of math knowledge was lost when students do not take a fourth year of math. Some participants identified CEP math as increasing the number of students taking a fourth year of math due to the bonus of also earning college credits, but some participants believed students took a fourth year of math regardless of the CEP option showing rigorous coursework that may be beneficial for their college applications.

Student engagement. The environment category intersected with student engagement characteristics and classroom engagement strategies in the student engagement theme (Table 8). Student engagement was two-fold: for student engagement characteristics and for classroom instructional strategies promoting student engagement. Student engagement was one of two theoretical frameworks for my study. College administrators did not contribute to student engagement in the classroom. College

administrators identified student engagement characteristics such as students participating in CEP showed a greater initiative and building confidence. College faculty in all partnerships except one identified CEP as improving motivation and self-esteem, giving students the opportunity to rise to the challenge of rigorous work, staying engaged in their fourth year of high school math, and reading agendas that promoted responsibility and mimicked the college dynamic.

High school administrators identified students as driven and focused engaging with faculty, gaining confidence, and being responsible for college level assignments. High school teachers had the added benefit of being in the classroom with CEP students and reported CEP helped create a better student providing peer editing, group assignments, student centered learning, applied learning, critical reading, notetaking, and time management skills with minimal lecture in the classroom. Like college readiness, student engagement was not the intent of offering CEP, but CEP facilitated students being engaged in college level coursework.

Collaboration and communication. Collaboration is another theoretical framework included in my study of CEP partnerships. Membership, environment, communication, and resources categories intersect with the collaboration and communication theme. Codes identified participant involvement or not involved, team members working together or not involved, open or limited communication and each partner providing what is needed (Table 8).

All partnerships identified collaborative and cooperative environments. Each understood that CEP could not be offered without the collaboration between the college and the high school. High school teachers and one college faculty had limited

communication and involvement in the collaboration. Some high school teachers had minimal communication within the partnership except for the shared curriculum and tests. High school teachers were not directly involved in the meetings or decisions about CEP. High school teachers were identified as college adjuncts but were not normally included in any college adjunct activities at the college.

Open communication is required to improve relationships (Putnam et al., 2012) but the communication category scored fourth for all partnerships on the list of collaboration categories (Table 6). Inclusion of high school teachers and using common terminology may enhance understanding between the college and high school partners. Professional development with high school teachers and college faculty would be beneficial, but timing for this type of function and other barriers were identified. Promoting CEP and making sure students were aware of this option could increase the number of students taking CEP. The connections between the high school and college were mainly administrative with those in charge of the program working together for the partnerships to continue.

Transfer. This theme pertained to transferring CEP college credits to another institution, not the community college where they were earned. The transfer theme was connected to the purpose category with the code of easy transfer or transfer issues (Table 8). Transferring college credits shortened the students' college career and was identified as favorable for college admissions showing college coursework taken in high school.

The Lampitt law was recognized as a mechanism in New Jersey that broadly addressed credit transfer, but challenges exist without clear models in and out of state. Some partnerships found college credit transfer as easy while others identified

challenges. Most knew about CEP credit transfer and that transfer decisions were up to the receiving college. CEP credits appear on a college transcript not denoted as taken at the high school. Some courses transferred as equivalent, some as elective, and some colleges limited CEP credits. Most partnerships knew Ivy League schools would not take college credits but thought it may look good on the students' application. Two partnerships experienced having to provide details to prove a CEP course was a college level course in order to allow the credits to transfer. English and general education courses were seen as more easily transferable than other CEP courses. Two out of four partnerships provided disclaimers about not guaranteeing CEP credit transfer. There seemed to be a lack of data on CEP credit transfer especially CEP courses combined with AP. It was unclear if colleges accepted transfer credit for CEP, AP, or not at all.

Conclusion cross-case findings. Presenting cross-case findings for all partnerships in my study provided a picture of the current state of CEP within the limit of those partnerships and participants. Participant titles and years of service are clearly represented in Table 5 showing the total mean years involved in CEP as 5.625 with all but one participant taking over CEP partnership that were already established. Only one participant in one partnership was involved from the start of their CEP partnership.

My conceptual framework of college readiness and my theoretical frameworks of student engagement and collaboration focused my study to answer my research question. Table 6 identified the category and factor scores for each partnership based on the Wilder Collaboration Factors Inventory. Documentation and interview themes were tied to the collaboration categories of the survey with supporting codes from the data (Table 8). Each code connected to collaboration categories and was supported by data presented in

each partnership and the cross-case findings. An introduction to my conclusion with discussion of research questions and findings, implications, recommendations, and final conclusion are now presented in Chapter 5.

Chapter 5

Conclusion

My study of New Jersey community college and high school partnerships addressed why and how CEP partnerships were formed and how CEP courses were selected. Collaboration was discovered as a necessity in offering CEP. Student engagement and college readiness were not the intent of offering CEP but supported opportunities for students. Most CEP students were advanced students and deemed college ready by the mandatory Accuplacer placement test or other assessment, however some partnerships provided strategies for college readiness to participate in CEP. Student engagement characteristics as well as student engagement strategies provided in the classroom were evident in the partnerships.

Themes emerged in my data findings included academic integrity, opportunities for students and institutions, college readiness, student engagement, collaboration and communication, and transfer. Collaboration categories with codes organized by theme (see Table 8) helped me to answer my research questions, propositions, and rival explanations. Beginning with the discussion of my findings and my research questions presented answers that led to implications related to my study considering policy, leadership, limitations and future research. Recommendations were developed from my findings and implications. The conclusion summarizes my study with discussion of my research questions, implications, leadership, limitations, further research, and recommendations. Below I use my findings to answer each of my research questions.

Discussion of Findings and Research Questions

Why offer CEP courses? Research question 1 specifically asked why New Jersey community college and high schools collaborate to offer CEP courses. CEP provided collaboration opportunities benefitting both students and community colleges that they would not otherwise have without CEP partnerships. My proposition 1 that New Jersey community colleges and high schools collaborate to offer CEP because they want to give students the opportunity to experience college coursework, accumulate college credits, and maintain college readiness was substantiated with my findings. Students experienced college coursework at the convenience of their high school, accumulated transferrable college credits on a college transcript to jump start their college careers, paid a reduced tuition rate for CEP college credits, and prepared or maintained college readiness. Students who participated in CEP are more likely than those who did not participate in CEP to remain in college and graduate in a shorter time (Thacker, 2014).

Focusing on shared vision in the best interest of the students, New Jersey community college and high school partners provided college readiness opportunities for students, which may have helped alleviate the number of students arriving on college campus as not college ready. CEP students took rigorous college level coursework with the responsibility of reading the syllabus and talking directly to their teacher preparing students to be ready for college expectations. Entering college directly into their college program allowed prepared students an opportunity to continue and complete their college degree (Woods et al., 2018). Some students may have thought that they could not complete college level work until they participated in CEP. CEP eased expectations of college coursework and saved students time and money.

Students may not be college ready based on Accuplacer scores, which could be flawed or present inaccurate placement test results. Fifty percent of students place into developmental education for math or English based on placement testing in the United States (National Conference of State Legislatures, 2015). Some CEP Partnerships implemented multiple measures to establish college readiness beyond reliance just on the Accuplacer placement test. The accuracy rate for college placement testing was 60% to 80% (Scott-Clayton, 2012). Partnerships directed students to college boot camps if they were not college ready, offered Accuplacer preparation class, or provided other college readiness strategies. The College Readiness Now initiative of the ALP program allowed students almost college ready to participate in a college level course with support giving them the opportunity to earn college credits. CEP was offered for non-English and non-math courses that were exempt from Accuplacer testing giving students an opportunity to participate in a college level CEP class without the placement testing barrier.

Students could transfer their CEP credits to other colleges or complete their associate degree after high school at the community college where they earned their CEP credits. There was much ambiguity around college credit transfer and there appeared to be a lack of data and standardized procedures. CEP credits appeared on a community college transcript without denoting the course was taken at the high school, which was thought to allow for easy transfer of college credits to other colleges. The Lampitt law in New Jersey provided a base for college credit transfer, but it was up to the receiving college to accept credits for an equivalent course or for elective credit and was not specific about college credits earned in high school according to the participants. A New Jersey state college disallows transfer of any college credits taken in high school. It was

not known if CEP courses combined with AP transferred with the CEP college credits on the transcript, AP credit, or not at all. Some partnerships experienced having to prove that the CEP was a college level course for the student to qualify for the credits transferring to the receiving college. Ivy League colleges did not accept any transfer credit, but taking college courses that appear on a college transcript while in high school could look favorable on college applications.

My rival explanation that New Jersey community colleges and high schools offer CEP to promote another course selection option for eligible high school students, provide smoother transition to college, and increase community college enrollments is also substantiated by the opportunities for institutions. Partnerships identified CEP students counting in the college enrollments if the community college provided the cost of instruction. Another benefit for community colleges was that CEP students may take additional evening or summer courses at the full tuition adding to the community college's revenue and enrollment. CEP courses added revenue but were offered at a discounted rate. CEP students were college ready, prepared to be college ready, or maintained college readiness while in high school and will likely enter directly in their college programs when they come to the college campus. High school and college collaborations promoted alignment and a strategy for maintaining college readiness (An, 2013). Community colleges recruited CEP students into their programs as an enrollment strategy although it is speculated that many advanced students go to four-year institutions.

Student engagement in CEP. My research question 1a asked how student engagement informed the decision to offer CEP. Student engagement was not identified as a factor in the decision of offering CEP. While this supported my Rival explanation 1a that student engagement was not considered in offering CEP, engaged student characteristics and classroom student engagement strategies were identified in CEP. Evidence supported my Proposition 1a that high school and community college relationships supported engaged students and student engagement strategies with high school to college alignment of structured CEP courses and students who choose to enroll in CEP courses.

CEP student engagement characteristics such as driven and focused students, students showing a greater initiative to take CEP courses, and motivation and confidence in selecting CEP courses were identified in the partnerships. Academic involvement and quality of effort resulting in positive student outcomes describes student engagement (Tinto, 2007). Students earning CEP college credits while in high school showed a quality of effort resulting in college credits that could shorten their community college careers or transferred to other colleges. Taking a fourth year of math especially a CEP college credit bearing math course when only three years of math are required at the high school showed initiative on the student and kept students engaged in their fourth year of high school while keeping math concepts fresh in their minds for possible better outcomes in college. Participation in CEP improves student engagement and motivation (An, 2013). Student motivation and self-esteem were identified in the rigorous coursework and expectations of college assignments that students perform.

Classroom student engagement strategies were identified in the data such as peer editing, group assignments, student centered learning, applied learning, critical learning, notetaking and time management skills with limited lecture time. It was unclear if these strategies are evident in high school courses or only in CEP courses. CEP students were responsible for reading a college syllabus and completing their assignments. Some CEP students received a college identification while in high school providing a mechanism for improved self-esteem to be considered a college student while in high school. Smaller class sizes with individualized attention and instant feedback in CEP courses provided opportunities for student engagement strategies. Tinto (2012) posits the institutional framework for student engagement included strategies such as expectations, academic support, and feedback to students. Longer time periods in high school than in college and easier access to the instructor provided opportunities for student engagement in CEP courses.

Collaborative partnerships. Research question 1b asked how collaborative partnerships facilitated offering CEP. New Jersey community college and high school partnerships were favorable, cooperative, and collaborative maintaining academic integrity of college courses with qualified CEP teachers and approved curriculum. My proposition 1b was supported with data that collaboration factors such as a favorable climate, shared vision, and mutual respect facilitated CEP relationships with prepared written agreements for the common goal of aligning high school to college maintaining student college readiness. My rival explanation was not supported because collaborative relationships were essential, and no higher-level administrative directives were identified. Shared vision of opportunities for students and favorable climate with mutual respect

were identified in the CEP partnerships. High school and college partnerships are supported by shared vision, open communication, joint decision making, and reflective evaluation with a focus on student success, (Sanders, 2006).

Collaborative partnerships were necessary in offering CEP as it required both the college and high school in making decisions about processes and procedures to approve courses, qualify teachers, and offer the CEP course on the high school campus. Mutual benefit is a component and strength of collaborations that bring knowledge and resources together (Trubowitz & Longo, 1997). Both the community college and high schools identified CEP as being in their own self-interest and was also the highest factor on the Wilder Collaboration Factors Inventory (Table 6) under the membership category. Teamwork, communication, and involved participants with each partner providing the resources needed were identified in the CEP partnerships. Meetings were sparse but conducted when necessary. Partnerships with college academy programs met more often about their academies than about CEP partnerships. Resources were provided by each partner but were not seen as shared resources.

Academic integrity was maintained by all partnerships working together to align courses and ensure teachers were qualified as college adjuncts. According to the International Center for Academic Integrity (2019), principles of trust, fairness, and responsibility in educational settings contribute to academic integrity. High school teachers had the responsibility to follow the same curriculum, exams, and grading as the college when teaching a CEP course. High school teachers were trusted to teach the CEP course without the college micromanaging the instruction. CEP teachers at the high school were typically qualified as a college adjunct requiring a master's degree in the

subject area, but high school teachers were not required to have a master's degree to teach high school courses. Two partnerships collaboratively worked around the challenge of the teacher credentialing requirement. One partnership inquired with Middle States Commission on Higher Education to determine alternative qualifying criteria. High school teachers could qualify with a bachelor's degree and five year's teaching experience according to their correspondence. Another partnership identified an alternative to the master's degree requirement and qualified teachers as a college adjunct by taking one graduate level course in the subject area. Collaboration allows participants to see different aspects of a problem and explore differences and solutions that go beyond their own limited vision (Mattessich et al., 2001).

CEP partnerships are mainly administrative processes leaving high school teachers outside of the administrative and decision-making processes for CEP. The need for the connection of high school teachers and college faculty were identified to improve high school to college transitions. Putnam et al. (2012) stated that open communication is required to improve relationships. One participant stated that they were speaking college language and the high school was speaking high school language. A common language could be helpful to ensure that the partners understand each other and the terminology they each use. Maintaining collaborations takes flexibility, persistence, and inclusion of all stakeholders (Gray, 1989). CEP partnerships were individual relationships without coordination or communication throughout the state to share best practices and challenges.

CEP course selection. Research question 2 asked how New Jersey community college and high school administrators and faculty decided on the CEP course selection. Faculty included high school teachers qualified as college adjuncts in my research question, but the data showed that high school teachers were not involved in the administrative processes of the CEP partnerships. CEP course structure was equivalent to those taught on the college campus. Academic integrity was upheld following the college course curriculum and using the same textbook and exams. Most CEP courses offered were in general education. My proposition 2 was supported that New Jersey community college and high school administrators and faculty collaborate to decide which courses align to offer opportunities for eligible students. My rival explanation was not supported as courses were not based on previous experience or established CEP procedures.

CEP course structure was identical to those offered on the college campus. Some partnerships offered CEP courses combined with AP courses, but some partnerships thought the goals of AP were different from CEP. Some CEP courses followed the college semester, and some were a high school year long course giving extra time in the classroom to cover more material. One example of a yearlong course is a CEP English course because the focus on writing techniques did not match the high school English requirement for literature, so the yearlong course allowed extra time to cover material meeting both requirements. The disconnect in alignment could possibly cause high school students to miss out on literature when taking a CEP English course, which was deemed important as literature could appear in SAT or college coursework. One partnership embedded literature into the writing assignments.

For students in college academies, CEP courses were typically taken in the student's freshman and sophomore year at the high school with the last two years taken at the college to earn an associate degree. According to Jenkins (2014), students accomplishing an associate degree have a much greater chance of earning a bachelor's degree. Academy students typically attended four-year schools after graduation, but CEP students could come to the community college where they earned their college credits or transfer the credits to other colleges.

CEP courses were mainly entry level general education courses that aligned to college level courses largely thought to be easily transferable. CEP college credits that appeared on a college transcript were typically transferrable to other colleges depending on the receiving college's transfer policy (New Jersey Department of Education, 2016b). According to Zinth (2013), New Jersey colleges do accept CEP credits, but it is dependent on the college the student wishes to attend. [College name] for instance excluded high school students taking a college course from their definition of transfer credits (University of Connecticut, 2018). Even with the New Jersey Lampitt law participants noted that credits could transfer as equivalent credit, elective credit, or not at all, depending on the receiving college's policies. Participants noted that Ivy League colleges did not accept CEP credits and that some colleges limited the number of CEP credits they accepted. Colleges that did accept CEP credits could encourage students to take a greater number of CEP courses.

Implications Related to CEP Partnerships in New Jersey

Findings and discussions of research questions and findings reveal implications to new and existing CEP partnerships in New Jersey. These implications provide details on what is working and what needs improvement to provide smoother transitions for students from K-12 to higher education. Partnerships collaboratively working together between secondary and post-secondary schools provide evidence for possible statewide models with opportunities to change current policy and practice related to CEP college and high school partnerships. High school teachers and college faculty directly involved with students provide leadership to their institutions to creatively recommend possible changes that build on current CEP partnerships initiatives in the best interest of the students. High school teachers were excluded from the administrative processes of the CEP partnerships. Collaboration with teachers and faculty can add value to the transition of students from high school to college.

Policy

New Jersey does not have legislative authority over community colleges so each community college is autonomous with coordination through the New Jersey Council of County Colleges (New Jersey Council of County Colleges, 2017a). The Council provides funding for a College Readiness Now grant for county college and high school partnerships to explore possibilities of programs and practices that can advance the relationships providing best practices for current and future college readiness initiatives (New Jersey Council of County Colleges, 2019). Relationship building in an open forum creates the opportunity of mutual understanding between the college and high school (Putnam et al., 2012). According to Lipka (2014), creation of models developed within

these college and high school relationships ends the blaming of the current state of college readiness to improve student outcomes. ALP models are an example of an initiative created collaboratively with college and high school collaborations through the College Readiness Now grant (New Jersey Council of County Colleges, 2019).

There is no state policy for CEP in New Jersey (Zinth, 2016). Without legislative authority or a state policy for CEP in New Jersey, CEP course selection and practices are left up to each community college and high school partnership. New Jersey is moving towards developing a framework for dual enrollment (N.J. Legis. S. P.L. 2018, c.145 (S870 1R). This bill creates a Dual Enrollment Study Commission that will review implementation and possible expansion of dual enrollment programs in New Jersey (N.J. Legis. S. P.L. 2018, c.145 (S870 1R). It is unclear what programs will be under the umbrella of dual enrollment and when the Commission will convene as they had not yet met.

Improving college readiness for student success is imperative to reach national goals with half of the jobs in the United States requiring postsecondary education (The White House, 2015). Partnerships between community colleges and high schools in New Jersey can influence this initiative with CEP providing a mechanism for students to earn college credit while in high school. Improved relationships with open communication between secondary and post-secondary education creates collaborations for student success (Putnam et al., 2012). These collaborations can fill the gap of knowledge about skills acquired in high school and those required in college. CEP provides an opportunity for students to experience college work and assure students can successfully engage in college. Student opportunity, access, and success cannot occur in isolation of the high

school or college. Leadership at both institutions are essential for the success of CEP and students.

Leadership

Partnerships built around offering CEP foster administrative relationships between college and high school administrators and college faculty as well as informal relationships with teachers who are sometimes isolated in the classroom. Teachers receive some communication from college faculty such as textbook information, shared curriculum, exams, and practice tests, but further collaboration between teachers and college faculty is indicated. Teacher and college faculty connections with these collaborations can be powerful in bridging the gap of skills learned in high school and those needed in college (Creech & Clouse, 2013). CEP creates college environments in high school for students to experience college level coursework, accumulate college credits, and maintain college readiness.

Leadership at the participant level is evident in establishing ALP and college academy programs in collaboration with the college and high school. Creatively establishing a credential by exception and including years of teaching service to approve high school teachers without master's degrees to teach CEP courses shows leadership, however I could not corroborate evidence of Middle States Commission on Higher Education allowing exceptions to teacher credentials. According to N.J. Admin. Code § 6A:8-3.3 (2020) "District boards of education and partner colleges ensure that college courses for high school students are taught by college faculty with academic rank. Adjunct faculty and members of the district staff who have a minimum of a master's degree may also be included." Fowler (2013) identifies several types of power to effect

change such as authority, economic dominance, force, and persuasion. Innovative strategies such as preparation for placement testing, multiple measures for placement, co-requisite courses, and math and English learning approaches improve student success (Center for Community College Student Engagement, 2016). CEP provides opportunities for partnerships to communicate creative ideas to engage students in their learning. Open communication, working together as a team, and treating everyone fairly contribute to democratic leadership (Northouse, 2012). CEP partnerships create opportunities for all participants to communicate with each other. Value is found in the CEP partnerships especially for students and institutions, but there are limitations in my study.

Limitations

CEP partnerships are mainly administrative with the process and structure in place, shared and absorbed resources. Community college and high school partnerships ensured CEP courses had approved curriculum and qualified teachers. High school teachers may feel this is more of an authoritative directive than a democratic partnership due to the administrative nature of CEP and exclusion of high school teachers in communication and decision process. Not all participants had the same vantage of the partnerships. College administrators with higher-level positions responsible for the CEP partnerships discuss CEP broadly and in-depth because they work with many college faculty and high schools. College faculty provide less information than their administrative counterparts about the CEP partnership and more about their discipline or qualifying courses or qualified teachers. High school administrators inform on their unique high school district as it relates to the CEP partnership. Like the college faculty, the high school teachers who are also qualified as college adjunct faculty, provide

information about CEP as it relates to their discipline and had the least knowledge and participation in the CEP partnership.

My study is limited to New Jersey community college and high school partnerships and only those that had comprehensive programs including math and English that agreed to participate to focus on college readiness. This excludes all other CEP partnerships. I did not study the students, nor did I study student information for those that are not qualified to participate in CEP or programs offered to students that do not meet the eligibility requirements for CEP.

This is a qualitative study and does not include quantitative data on the number of CEP courses or students engaged in CEP at their high school or the transfer rate of CEP college credits. My study is limited to the college courses offered at the high school for college credit. College academy student information pertains only to the CEP courses that are part of their academy programs taken on the high school campus. My study investigates college readiness, student engagement, and collaboration, but does not address the cause or results of offering CEP. I collected and analyzed documentation, survey, and interview data to specifically to answer my research question to fill the gap in knowledge of the New Jersey community college and high school CEP partnerships. This knowledge leads to further questions and opportunities for further research.

Further Research

The limitations and findings in my focused study leave open many avenues for further research about CEP and student success. CEP is identified as a benefit for students to understand the rigor and expectation of college level work as well as save time and money taking the course in high school. A study of the academic success and

transfer of CEP credits specific to New Jersey partnerships may provide information if the perceived and actual benefit are identical. Specific information about transfer of CEP credits was ambiguous in my study so further research can provide basic information for these partnerships.

Understanding the impact of CEP courses in New Jersey on students' trajectories toward their higher education careers can be studied. This can include where they attend after high school graduation, how many CEP credits they take with them, what colleges are accepting CEP credits for equivalent, elective, or not at all, and are they prepared for college after taking a CEP course in New Jersey. Most students were identified as advanced students in New Jersey CEP programs. What other programs like the College Readiness Now ALP or CTE courses offered without the Accuplacer requirement for middle level or lower level academic students can be offered? A study of how we can address college readiness and access for all students, even those that fall below the admission criteria for CEP courses can advance academic access in New Jersey.

Financial barriers for CEP in New Jersey can also be investigated to understand the impact for low income students and if there is a possibility of Federal Pell grants for high school students in New Jersey, or other state or local funding initiatives. Those New Jersey colleges and high schools that offer scholarships for CEP students can be studied. Any study specific to New Jersey that addresses access, participation, and success of CEP students will fill further knowledge gaps about New Jersey CEP partnerships.

Recommendations

Collect relevant data and ground decisions in the data investigated by multiple stakeholders since most partnerships were unfamiliar with other partnerships and the data related to student access and success after high school. Gray (1989) posits that inclusion of all stakeholders is important to collaboration. If a newly established Dual Enrollment Commission seeks to survey institutions, identify program costs, review effects on college readiness, graduation rates, time to degree, assess academic rigor, and develop proposals to expand and increase success of dual enrollment (N.J. Legis. S. P.L. 2018, c.145 (S870 1R), that data will be extremely valuable in decisions about CEP. Build on existing CEP partnerships with New Jersey community colleges and high schools to model the behavior that is working. The collaboration survey shows membership, environment, and purpose with scores of 3.9 or higher (Table 6). Members see the benefit of these partnerships. The two lowest collaboration categories are resources and process and structure (Table 6). Based on the data, identification of a model CEP program that can be replicated with the process clearly outlined can give CEP partnerships the opportunity to compare what they are currently doing and implement improvements. Using data to develop a model can provide a more cohesive process and structure for New Jersey CEP partnerships.

Create sustainable financial models for CEP students and institutions to ensure adequate equitable funding for students to participate in CEP, especially low-income students. Implementing successful recruitment strategies for CEP students to complete their degree at the community college can increase enrollments for community college and allow CEP students to complete their college degree at a reduced rate. Students

taking multiple CEP courses or obtaining college credit for prerequisite courses may enter the community college with a semester or a year completed and shorten their path to an associate degree, a bachelor's degree, or employment. The financial model of reduced tuition for CEP could be advertised showing the cost savings for students. The model could outline recommendations for low income students such as a further reduced fee or scholarships available from CEP tuition funding set aside to support the programs and for student access. Determine feasibility of colleges paying high schools for the cost of instruction and counting CEP students in their enrollments as well as a model for high schools to use that funding to support CEP students. Offering ALP at no tuition can be scaled up as an option in all high school settings in New Jersey to improve college readiness for students and recruiting middle-achieving students in community colleges.

The final recommendation is for the New Jersey Council of County Colleges to include an affinity group specific to CEP partnerships or embed CEP into an existing affinity group that may include opportunities for professional development for the college and their high school partners. Inclusion of CEP high school and college faculty stakeholders are imperative to the alignment of K12 to higher education.

Final Conclusion

Understanding CEP partnership opportunities provides a model for replication of what works well and possible revisions to address challenges revealed in my research data. A cohesive model of recommendations for CEP in New Jersey can support new and existing partnerships for better access and success of CEP students.

Partnerships offering CEP in New Jersey were developed for the benefit of the students and institutions. Community college and high school collaborations can be

challenging but are worth the effort to offer opportunities for students to engage in college coursework, accumulate college credits, and maintain college readiness. College and high school partnerships offer strategies to maintain college readiness in high school (McCormick & Johnson, 2013). CEP provides social and academic student engagement opportunities (Tinto, 2007) for students and for student engagement classroom strategies (Tinto, 2012). Collaboration opportunities allow participants to learn from different perspectives (Gray, 1989; Trubowitz & Longo, 1997; Mattesich et al., 2001).

New Jersey community college and high school partnerships are currently not inclusive of the CEP teachers since the process is highly administrative to ensure curriculum is approved and teachers are qualified. Setting egos aside and having academic discussions between college faculty and high school teachers can benefit students to ensure skills learned in high school match required skills needed in college. Partnerships can reduce the need for developmental education by providing interventions in high school (Creech & Clouse, 2013).

Ambiguity around teacher credential, counting students in college enrollments, possible academic and financial barriers, and transfer of CEP credits challenge CEP partnerships in New Jersey. Acceptable creative solutions to these challenges need to be shared so all partnerships in New Jersey can benefit from them. The Dual Enrollment Study Commission can collect and provide data to suggest model CEP programs to support and expand CEP partnerships in New Jersey. While the New Jersey Council of County Colleges will be part of the Commission, creating an affinity group for CEP partnerships can bring the opportunities and challenges direct from those involved in the partnerships to the Council for deeper inclusion of recommendations.

References

Achieving the Dream, American Association of Community Colleges, Charles A. Dana Center, Complete College America, Education Commission of the States, and Jobs for the Future. (2015, November). Core principles for transforming remediation within a comprehensive student success strategy: A joint statement. *Core-Principles.org.* Retrieved from https://www.insidehighered.com/sites/default/server_files/files/core_principles_nov5.pdf

Adams, C.J. (2015, September). 2015 SAT, ACT scores suggest many students aren't college-ready: Scores either dipped or stayed the same. *Education Week, 35*(3), 6. Retrieved from http://www.edweek.org/ew/articles/2015/09/09/2015-sat-act-scores-suggest-many-students.html?print=1

American Association of Community Colleges. (2018, October). Convening on college and career readiness. Retrieved from https://www.aacc.nche.edu/wp-content/uploads/2018/12/AACC_AASA_Convening_Summary_Report_11.20.18.pdf

An, B. P. (2013). The Influence of dual enrollment on academic performance and college readiness: Differences by socioeconomic status. *Research in Higher Education, 54*(4), 407-432.

Appleby, D.C. (2014, August). How do college freshmen view the academic differences between high school and college? Insights for your college bound students. *American Psychology Association.* Retrieved from http://www.apa.org/ed/precollege/ptn/2014/08/college-freshmen.aspx

Arnold, B. K. H. (2015). *A comparative study of dual enrollment student achievement in various learning environments and non-dual enrollment student achievement* (Order No. 3708206). Available from ProQuest Dissertations & Theses Global. (1691069628). Retrieved from http://ezproxy.rowan.edu/login?url=http://search.proquest.com/docview/1691069628?accountid=13605

Ashford, E. (2011). *New approaches to developmental math stress relevance*. American Association of Community Colleges. Retrieved from http://ccdaily.com/Pages/Academic-Programs/New-approaches-to-developmental-math-stress-relevance.aspx

Bahr, P. (2011). Deconstructing remediation in community colleges: Exploring associations between course-taking patterns, course outcomes, and attrition from the remedial math and remedial writing sequences. *Research in Higher Education*, *53*(6), 661-693.

Bailey, M. & Dynarski, S. (2011). *Gains and gaps: Changing inequality in U.S. college entry and completion.* National Bureau of Economic Research. Retrieved from http://users.nber.org/~dynarski/Bailey_Dynarski.pdf

Bailey, T., Jeong, D.W., & Cho, S.W. (2010). *Referral, enrollment, and completion in developmental education sequences in community colleges* (CCRC Working Paper No. 15). New York, NY: Columbia University, Teachers College, Community College Research Center.

Barnett, E. A., Fay, M. P., Trimble, M. J., Pheatt, L. (2013). Reshaping the college transition: Early college readiness assessments and transition curricula in four states. New York, NY: Columbia University, Teachers College, *Community College Research Center.* Retrieved from http://ccrc.tc.columbia.edu/publications/reshaping-college-transition.html

Baum, S., & Payea, K. (2005) Education pays update. New York: The College Board. Retrieved from http://www.collegeboard.com/prod_downloads/press/cost04/EducationPays2004.pdf

Belfield, C.R., & Crosta, P.M. (2012, February). *Predicting success in college: the importance of placement tests and the high school transcript.* New York, New York: Columbia University, Teachers College, Community College Research Center.

Bettinger, E., & Long, B. (2006, September). Addressing the needs of under-prepared students in higher education: Does college remediation work? *National Center for Postsecondary Research,* Retrieved from http://www.postsecondaryresearch.org/i/a/document/4924_BettingerLong2006.pdf

Bonham, B.S., & Boylan, H.R. (2011). Developmental mathematics: Challenges, promising practices, and recent initiatives. *Journal of Developmental Education, 34*(3), 2-4, 6, 8-10. Retrieved from https://files.eric.ed.gov/fulltext/EJ986273.pdf

Booth, W.C., Colomb, G.G., & Williams, J.M. (2008). *The Craft of Research* (3rd ed.). Chicago; London: The University of Chicago Press.

Burris, C.C., Heubert J.P., Levin, H.M. (2006, Spring). Accelerating mathematics achievement using heterogeneous grouping. *American Educational Research Journal, 43(1),* 105-136. Retrieved from http://www.jstor.org/stable/3699404

California Community Colleges Chancellor's Office. (2017). *Early assessment program.* Retrieved from http://extranet.cccco.edu/Divisions/StudentServices/EAP.aspx

Calcagno, J., & Long, B. (2008). The impact of postsecondary remediation using a regression discontinuity approach: Addressing endogenous sorting and noncompliance. An NCPR Working Paper. *National Center for Postsecondary Research*. Retrieved from http://www.tc.columbia.edu/centers/ncpr/?Id=Publications&Info=NCPR+Publications

Carillo, E. C. (2016). Engaging sources through reading-writing connections across the disciplines. *Across the Disciplines*, *13*(1), http://wac.colostate.edu/atd/articles/carillo2016.cfm

Carnegie Foundation. (2018). Carnegie math pathways. Retrieved from https://www.carnegiefoundation.org/in-action/carnegie-math-pathways/

Center for Community College Student Engagement. (2016). *Expectations meet reality: The underprepared student and community colleges*. Austin, TX: The University of Texas at Austin, College of Education, Department of Educational Administration, Program in Higher Education Leadership.

College Board (2017). What are college placement tests? Retrieved from https://bigfuture.collegeboard.org/find-colleges/academic-life/what-are-college-placement-tests

Creech, K. K., & Clouse, P. J. (2013). Outcomes of a partnership for college and career readiness and a senior English transition course. *National Association of Secondary School Principals. NASSP Bulletin*, *97*(4), 314-334. Retrieved from http://ezproxy.rowan.edu/login?url=https://search.proquest.com/docview/1500394429?accountid=13605

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage.

Derose, K. P., Beatty, A., & Jackson, C.A. (2004). *Evaluation of Community Voices Miami: Affecting health policy for the uninsured.* Santa Monica, CA: RAND Corporation. Retrieved from https://www.rand.org/pubs/technical_reports/TR177.html

DuFour, R. and Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement.* Bloomington, IN: Solution Tree.

Eckert, L. (2008). Bridging the pedagogical gap: Intersections between literary and reading theories in secondary and postsecondary literacy instruction. *Journal of Adolescent & Adult Literacy, 52*(2), 110-118. Retrieved from http://www.jstor.org.ezproxy.rowan.edu/stable/20111748

Education Commission of the States. (2020). Dual enrollment – all state policies. Retrieved from http://ecs.force.com/mbdata/mbprofgroupall?Rep=DEA

Federal Student Aid: Office of the U.S. Department of Education. (n.d.). Preparing for college: Taking required tests. Retrieved from https://studentaid.ed.gov/sa/prepare-for-college/tests

Fay, M., Bickerstaff, S. E., & Hodara, M. (2013). Why students do not prepare for math placement exams: Student perspectives. Columbia University Academic Commons, https://doi.org/10.7916/D82Z13HN.

Field, A. (2009). *Discovering statistics using SPSS*. London: Sage.

Fink, A. (2013). *How to conduct surveys: A step by step guide.* (5th ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Fink, J., Jenkins, D., & Yanagiura, T. (2017). What happens to students who take community college "dual enrollment" courses in high school? *Community College Resource Center.* Retrieved from https://ccrc.tc.columbia.edu/media/k2/attachments/what-happens-community-college-dual-enrollment-students.pdf

Fowler, F. (2013). *Policy studies for educational leaders: An introduction* (4th ed.). Boston, MA: Pearson Education.

Fullan, M. (2007). *The new meaning in educational change* (4th ed.). New York: Teachers College Press.

Gearing, R. E. (2004). Bracketing in research: A typology. *Qualitative Health Research, 14*(10), 1429-1452. (available as a PDF in Canvas).

Governor's Council on Higher Education. (2015). *Strategic priorities for New Jersey higher education.* Retrieved from https://www.state.nj.us/highereducation/documents/pdf/2015Report.pdf

Gray, B. (1989). *Collaborating: Finding common ground for multiparty problems.* San Francisco, CA: Jossey-Bass Inc.

Hart, C. (1998). *Doing a literature review: Releasing the social science research imagination.* Thousand Oaks, CA: SAGE Publications Inc.

Hassel, H., & Giordano, J. (2015). The blurry borders of college writing: Remediation and the assessment of student readiness. *College English, 78*(1), 56.

Heimbach, A. (2015). Which states require the SAT? Complete list. Retrieved from http://blog.prepscholar.com/which-states-require-the-sat

Hoyt, J.E., & Sorensen, C.T. (2001). High school preparation, placement testing, and college remediation. *Journal of Developmental Education, 25*(2), 26.

Hughes, K.L., Rodriguez, O., Edwards, L., & Belfield, C. (2012). Broadening the benefits of dual enrollment: Reaching underachieving and underrepresented students with career-focused programs. *Community College Research Center.* Retrieved from http://ccrc.tc.columbia.edu/media/k2/attachments/broadening-benefits-dual-enrollment-rp.pdf

International Center for Academic Integrity. (2019). Fundamental values of academic integrity. Retrieved from https://academicintegrity.org/fundamental-values/

Jaggars, S., & Stacey, G.W. (2014, January). What we know about developmental education outcomes. *Community College Research Center.* Retrieved from http://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-developmental-education-outcomes.pdf

Jenkins, D. (2014). Why get an associate degree when I want a bachelor's? Retrieved from http://www.completionbydesign.org/blog/why-get-an-associate-degree-when-i-want-a-bachelor%E2%80%99s

Jobs for the Future. (2016). Dual enrollment New Jersey. Retrieved from http://application.jff.org/dualenrollment/view_state.php?id=913

Kane, G., Tyson, R., & Zaleski, B. (2009). Making connections: Preparing developmental writers for college English. *Research & Teaching in Developmental Education, 25*(2), 14-28.

Karp, M. M., Bailey, T.R., & Hughes, K. L. (2004). *State dual enrollment policies: Addressing access and quality.* U.S. Department of Education, Department of Vocational and Adult Education.

Karp, M. M., & Hughes, K. L. (2008). Information networks and integration: Institutional influences on experiences and persistence of beginning students. *New Directions for Community Colleges, 2008*(144), 73-82. doi:10.1002/cc.347

Khan Academy. (2018). A college readiness partnership: Official SAT practice. Retrieved from https://www.khanacademy.org/sat

Kotter, J. P. (2012). *Leading change*. Boston, MA: Harvard Business Review Press.

Lipka, S. (2014, April). Some colleges try to catch students up before they're behind. *The Chronicle of Higher Education*.
Retrieved from http://chronicle.com/article/Some-Colleges-Try-to-Catch/145819/

Mattessich, P.W., Murray-Close, M. & Monsey, B.R. (2001). *Collaboration: what makes it work* (2nd ed.). Saint Paul, MN: Wilder Publishing Center, Amherst H. Wilder Foundation.

Maxwell, J.A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

McCormick, J., Hafner, A. L., & Saint-Germain, M. (2013). From high school to college: Teachers and students assess the impact of an expository reading and writing course on college readiness. *Journal of Educational Research and Practice, 3*(1) doi: 10.5590/JERAP.2013.03.1.03

McCormick, K. L. & Johnson A.T. (2013). Confronting college readiness in the USA: a public policy review and recommendation. *International Journal of Public Policy, 9*(4/5/6), 277-291. doi: 10.1504/IJPP.2013.056570.

Miles, M.B. & Huberman, A.M. (1994). *Qualitative data analysis: An extended source book.* Thousand Oaks, CA: Sage Publications, Inc.

National Alliance of Concurrent Enrollment Partnerships. (2016). What is concurrent enrollment? Retrieved from http://www.nacep.org/about-nacep/what-is-concurrent-enrollment/

National Conference of State Legislatures. (2015). Hot topics in higher education reforming remedial education. Retrieved from http://www.ncsl.org/research/education/improving-college-completion-reforming-remedial.aspx

National Student Clearing House (2017). Reverse transfer. Retrieved from https://reversetransfer.org/

Nespoli, L.A. (2013). *Community colleges: A New Jersey success story*. Retrieved from http://www.njccc.org/wp-content/uploads/2013/03/successstory.pdf

New Jersey Council of County Colleges (2017). Member colleges. Retrieved from http://www.njccc.org/contact-us/19-colleges/

New Jersey Council of County Colleges (2017). Preparing students for the Accuplacer placement exam. Retrieved from http://www.njccc.org/center-for-student-success/accuplacer-preparation/

New Jersey Council of County Colleges. (2017, October 2). *Use of placement tests within a multiple measures approach at NJ's community colleges: A statement of guiding principles.* Retrieved from http://www.njccc.org/wp-content/uploads/2018/08/USE-OF-PLACEMENT-TESTS-WITHIN-A-MULTIPLE-MEASURES-APPROACH-AT-NJS-COMMUNITY-COLLEGES-A-STATEMENT-OF-GUIDING-PRINCIPLES-APPROVED-BY-PRESIDENTS-OCT-2-2017.pdf

New Jersey Council of County Colleges, Center for Student Success. (2018, June). New Jersey Center for Student Success Community College Research Center guided pathways essential practices: Scale of adoption self-assessment report. Retrieved from https://b7ee6609-478a-4b71-959f-b0105743c9c4.filesusr.com/ugd/8e3bb7_edc25537f94a4b1c8d3f9308e447094a.pdf

New Jersey Council of County Colleges. (2019). Center for Student Success: College readiness. Retrieved from https://www.njstudentsuccess.org/college-readiness1

New Jersey Department of Education. (2014). NJ school performance reports – interpretive guide. Retrieved from https://www.nj.gov/education/pr/1213/Interpretive%20Guide%202014.pdf

New Jersey Department of Education (2015). NJ school performance reports – interpretive guide. Retrieved from https://www.nj.gov/education/pr/1314/NJ%20School%20Performance%20Interpretive%20Guide%202015.pdf

New Jersey Department of Education. (2016). Career and technical education program guide. Retrieved from http://www.nj.gov/education/cte/study/approval/ProgramGuide.pdf

New Jersey Department of Education. (2016). NJ school performance reports – interpretive guide. Retrieved from https://www.nj.gov/education/pr/1415/NJSchoolPerformanceInterpretiveGuide.pdf

New Jersey Department of Education (2019). NJ school performance report: Download the data. Retrieved from https://rc.doe.state.nj.us/ReportsDatabase.aspx

New Jersey Statutes 18A § 62-46. (2008). Transfer of academic credits from county colleges. Retrieved from https://www.state.nj.us/highereducation/PDFs/XferAgreementOct08.pdf

N.J. Admin. Code § 6A:8-3.3 (2020). Enrollment in college courses. Retrieved from https://casetext.com/regulation/new-jersey-administrative-code/title-6a-education/chapter-8-standards-and-assessment/subchapter-3-implementation-of-the-new-jersey-student-learning-standards/section-6a8-33-enrollment-in-college-courses

N.J. Legis. S. P.L. 2018, c.145 (S870 1R), An act establishing the "Dual enrollment study commission." (2018). Retrieved from https://www.njleg.state.nj.us/2018/Bills/AL18/145_.HTM

Noble, J. P., Schiel, J. L., & Sawyer, R. L. (2004). Assessment and college course placement: Matching students with appropriate instruction. In J. E. Wall & G. R. Walz (Eds.), *Measuring up: Assessment issues for teachers, counselors, and administrators* (pp. 297–311). Greensboro, NC: ERIC Counseling & Student Services Clearinghouse and the National Board of Certified Counselors.

Northouse, P. G. (2012). *Introduction to leadership concepts and practice* (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Putnam, J., Gunnings-Moton, S., & Sharp, C. (2012). *Leadership through professional learning communities.* Boston, MA: McGraw Hill.

Quaye, S. J., & Harper, S. R. (2015). *Student engagement in higher education* (2nd ed.). New York, NY: Routledge.

Rath, B., Rock, K., & Laferriere, A. (2013). Pathways through college: Strategies for improving community college student success. *Our Piece of the Pie, Inc.* Retrieved from http://www.opp.org/docs/PathwaysCollegeStrategies_StudentSuccess.pdf

Reys, B., Dingman, S., Nevels, N., & Teuscher, D. (2007, April). High school mathematics: State-level curriculum standards and graduation requirements. *Center for the Study of Mathematics Curriculum: An NSF Center for Learning and Teaching.* Retrieved from http://files.eric.ed.gov/fulltext/ED535222.pdf

Rossman, G. B., & Rallis, S. F. (2012). *Learning in the field: An introduction to qualitative research* (3rd ed). Thousand Oaks, CA: Sage.

Rowan College of South Jersey. (2020). Opportunities reimagined. Retrieved from https://www.rcsj.edu/opportunity?utm_source=Website&utm_medium=homepage-footer&utm_campaign=opportunity

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed). Thousand Oaks, CA: Sage.

Rutschow, E.Z., & Schneider, E. (2011, June). Unlocking the gate: What we know about improving developmental education. *National Center for Postsecondary Research,* Retrieved from http://www.tc.columbia.edu/centers/ncpr/?Id=Publications&Info=NCPR+Publications

Saldana, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.

Sanders, M.G. (2006). *Building school-community partnerships: Collaboration for student success.* Thousand Oaks, CA: Corwin Press.

Schak, O., Metzger, I., Bass, J., McCann, C., & English, J. (2017). Developmental education: Challenges and strategies for reform. Retrieved from https://www2.ed.gov/about/offices/list/opepd/education-strategies.pdf

Scott-Clayton, J. (2012). Do high stakes placement exams predict college success? (CCRC Working Paper No. 41). New York, NY: Columbia University, Teachers College, Community College Research Center.

Scott-Clayton, J., Crosta, P. M., & Belfield, C. R. (2014). Improving the targeting of treatment evidence from college remediation. *Educational Evaluation and Policy Analysis*, *36*(3), 371-393. doi: 10.3102/0162373713517935

Shields, D. J. (2005). Developmental education: Criticisms, benefits and survival strategies. *Research and Teaching in Developmental Education, 22*(1), 43-51. Retrieved from https://www.jstor.org/stable/42802597

State of New Jersey, Office of the Secretary of Higher Education. (2017). *NJ's college access challenge grant: Tools for college access.* Retrieved from http://www.state.nj.us/highereducation/grants/College_readiness.shtml

Stone III, J.R., Alfeld, C., & Pearson, D. (2008, Sep.). Rigor and relevance: Enhancing high school students' math skills through career and technical education. *American Educational Research Journal 45*(3), 767-795. Retrieved from http://www.jstor.org/stable/27667150

Tabachnick, B. & Fidell, L. (2001). *Using multivariate statistics.* Boston: Allyn and Bacon.

Thacker, K. O. (2014). *Graduation rates: A comparison of college graduation success rates of dual enrollment versus non-dual enrollment students at the community college* (Order No. 3645790). Retrieved from http://ezproxy.rowan.edu/login?url=http://search.proquest.com/docview/1626388108?accountid=13605

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago, IL: The University of Chicago Press.

Tinto, V. (2007). Research and practice of student retention: What next? *Journal of College Student Retention, 8*(1), 1-19. Retrieved from http://ezproxy.rowan.edu/login?url=http://search.proquest.com/docview/196740186?accountid=13605

Tinto, V. (2008). Taking student success seriously: Rethinking the first year of college. Retrieved from http://www.uky.edu/ie/sites/www.uky.edu.ie/files/uploads/CF_Taking%20Student%20Success%20Seriously.pdf

Tinto, V. (2012). *Completing college: Rethinking institutional action.* Chicago; London: The University of Chicago Press.

Trubowitz, S., & Longo, P. (1997). *How it works – inside a school-college collaboration.* New York, NY: Teachers College Press.

University of Connecticut, Office of Early College Programs. (2018). Credit transfer database. Retrieved from http://eceapps.uconn.edu/credit_transfer_database/

The University of Texas at Austin, Charles A. Dana Center. (2018). Dana Center Mathematics Pathways. Retrieved from https://www.utdanacenter.org/our-work/higher-education/dana-center-mathematics-pathways

U.S. Department of Education. (2015). *Laws and guidance overview*. Retrieved from http://www2.ed.gov/policy/landing.jhtml?src=pn

U.S. Department of Education. (2016). *Fact sheet: Expanding college access through the dual enrollment Pell experiment.* Retrieved from http://www.ed.gov/news/press-releases/fact-sheet-expanding-college-access-through-dual-enrollment-pell-experiment

U.S. Department of Education. (2017). *Developmental education challenges and strategies for reform.* Retrieved from https://www2.ed.gov/about/offices/list/opepd/education-strategies.pdf

Vangen S. and Huxham, C. (2013). Building and using the theory of collaborative advantage. In *Network theory in the public sector: Building new theoretical frameworks*. Eds. R., Keast, M., Mandell and R. Agranoff. New York: Taylor and Francis, *Forthcoming.* Retrieved from https://www.academia.edu/3643114/Building_and_Using_the_Theory_of_Collaborative_Advantage

The White House. (2015). *Education knowledge and skills for jobs of the future*. Retrieved from https://www.whitehouse.gov/issues/education/higher-education

Woods, C. S., Park, T., Hu, S. and Jones, T. B. (2018). *How high school coursework predicts introductory college-level course success.* Retrieved from http://journals.sagepub.com/doi/abs/10.1177/0091552118759419

Xu, D., Fink, J., and Solanki. (2019). *College acceleration for all? Mapping racial/ethnic gaps in advanced placement and dual enrollment participation.* CCRC Working Paper No. 113. Community College Research Center, Teachers College, Columbia University. Retrieved from https://ccrc.tc.columbia.edu/media/k2/attachments/crdc-advanced-placement-dual-enrollment-access.pdf

Yin, R.K. (2014). *Case study research design and methods* (5th ed.). Thousand Oaks, CA: SAGE Inc.

Zinth, J.D. (2012). 50-state mathematics requirements for the standard high school diploma. Retrieved from http://www.ecs.org/clearinghouse/01/01/28/10128.pdf

Zinth, J.D. (2016). 50-state comparison: Dual enrollment statewide policy in place. Retrieved from http://ecs.force.com/mbdata/MBQuestRTL?Rep=DE1501

Zinth, J., & Barnett, E. (2018). Rethinking dual enrollment to reach more students. Promising Practices. Education Commission of the States. Retrieved from https://files.eric.ed.gov/fulltext/ED582909.pdf

Zinth, J., & Taylor, J. L. (2019). Leveraging state data systems to address policy-relevant research: The case of dual enrollment. *New Directions for Institutional Research, 2019*(181), 103–116. https://doi-org.ezp.raritanval.edu/10.1002/ir.20301

Appendix A

Informed Consent Form

Participation in Interview with Rowan University Doctoral Student to Obtain Information from College and High School Administrators and Faculty on Concurrent Enrollment Program (CEP) Partnerships

Please read this consent document carefully before you decide to participate in this study.

You are invited to participate in a research study to understand the college and high school administrator and faculty (including high school teachers) perspectives about collaboration, student engagement, and college readiness associated with Concurrent Enrollment Programs (CEP). This study is being conducted by a researcher in the Department of Education at Rowan University. The Principal Investigator of the study is Darlene Pickerell.

Participation in this study is voluntary. If you agree to participate in this study, you will be interviewed for about 60 minutes. The number of participants in the study is about 16.

You agree to participate in an interview process with Darlene Pickerell to obtain information about how and why New Jersey community colleges and high schools collaborate to provide CEP and select courses.

There are no foreseen risks to participating in this study; after the interview, you may have questions, which will be answered immediately by me or the contact information below.

Your identity and college identity will be kept confidential to the extent provided by law. According to the Rowan University Institutional Research Board website, confidentiality is the responsibility for limiting disclosure of private matters. This includes the responsibility to use, disclose, or release such information with the knowledge and consent of the individual identified. Your information will not be released. Your identity will be assigned a code that is unique to this study. No one other than myself would know whether you participated in the study. Study findings will be presented only in summary form and your name or college name or identifying information will not be used in any report or publications. Data is retained for six years.

Participating in this study may not benefit you directly, but it will help to learn about collaboration between New Jersey community college and high school CEP partnerships and how, if at all, student engagement and college readiness are addressed in the partnerships.

Your participation in this study is completely voluntary. If you choose not to participate in this study, this will have no effect on the services or benefits you are currently receiving. You may skip any questions you don't want to answer and withdraw at any time before, during, or after the interview, without consequences.

If you have any questions or concerns about your participation in this interview process, you can contact Darlene Pickerell at 908-526-1200 x8456 or Darlene.Pickerell@raritanval.edu or Dr. Monica Kerrigan 856-256-4500 x53658 kerriganm@rowan.edu. Dr. Kerrigan is the chairperson of the Dissertation Committee for Darlene Pickerell. If you have questions about your rights as a research participant, please contact the **Rowan University SOM IRB Office** at (856) 566-2712 or Rowan University Glassboro/CMSRU IRB at 856-256-4078.

Audio Addendum to Informed Consent Form for Participation in Interview with Rowan University Doctoral Student to Obtain Information from College and High School Administrators and Faculty on Concurrent Enrollment Program (CEP) partnerships

You have already agreed to participate in a research study conducted by Darlene Pickerell based on the first page of this informed consent form and your signature below. This addendum asks for your permission to allow me to audiotape (sound only) the interview as well, as part of the research study. You do not have to agree to be recorded in order to participate in the main part of the study.

The recording(s) will be used for analysis of the interview for the research. The recording(s) will include the code on the consent form and no other personal information. The recording(s) will be stored in an audio file on my cell phone or recording device until transferred onto my password protected laptop for transcription. The laptop is stored in a secure location locked in my home. Data will be disposed of according to Rowan University protocol, after six years.

YOU WILL BE GIVEN A COPY OF THIS FORM WHETHER OR NOT YOU AGREE TO PARTICIPATE.

Social and Behavioral IRB Research Agreement

I have read the procedure described above. I voluntarily agree to participate in the procedure and **I have received a copy of this description.**

Name (Printed) _____

Signature: _____

Date: _____

Principal Investigator: _____ Date: _____

Social and Behavioral IRB Research Agreement Addendum

Your signature on this form grants the investigator named above permission to record you as described above during participation in the above-referenced study. The investigator will not use the recording(s) for any other reason than that/those stated in the consent form without your written permission.

I have read the procedure described above. I voluntarily agree to participate in the procedure and **I have received a copy of this description.**

Name (Printed) _____

Signature: _____

Date: _____

Principal Investigator: _____ Date: _____

Appendix B

College and High School Administrator and College Faculty (see Appendix C for High School Teacher Qualified as College Adjunct) Interview Protocol

Hi, my name is Darlene Pickerell. I am a doctoral student researcher conducting my study of Concurrent Enrollment Program (CEP) partnerships exploring collaboration and student engagement and college readiness. Please review the Informed Consent Form for this interview and let me know if you have any questions. I appreciate your time and expertise to provide your unique perspective of your experience with CEP partnerships in New Jersey. I anticipate the interview will be completed within 60 minutes. If more time is needed I will ask if you would like to continue or schedule another appointment time.

1. What is your title?

2. What is your role as it pertains to CEP and how long have you served in this role?

3. What are the reasons and benefits of offering CEP?

4. Do you know who initiated the conversation to offer CEP?

    a. Were you involved in the decision process to offer CEP?

    b. Who else was involved in the decision?

    c. Who made the final decision to implement CEP?

    d. How was the decision made to offer specific CEP courses (what was the process)?

5. Who is currently involved in the CEP partnership?

    a. How often do participants in the partnership meet and who attends?

    b. Who typically runs the CEP meeting?

    c. What is the focus and typical topics of the meeting?

    d. What is the atmosphere (cooperative/challenging/positive/negative) of the meeting?

    e. What resources (such as facilities for meetings, administrative assistance, supplies, etc.) are shared in the CEP partnership?

f. How are current decisions made?

g. Please describe informal communication between meetings.

6. Why are specific CEP courses offered?
    a. How, if at all, does offering CEP math and English provide an opportunity for college readiness?
    b. How is CEP math unique when only three years of high school math are required?
7. What factors were considered when deciding to offer CEP courses? (probe: such as course alignment, qualified teacher, maintaining college readiness, promotes student engagement through academic involvement, time on task, quality of effort, etc.)
8. How, if at all, does collaboration between the college and high school facilitate offering CEP?
9. What strategies promote a pipeline for students from high school to college and why?
    a. How does CEP fit into the pipeline from high school to college?
10. How would you describe the relationship between the community college and high school (favorable, unfavorable, neutral, authoritative, etc.)?
    a. Please provide examples if there is mutual respect.
11. Were there any barriers to offering CEP? If so, what were they and how were you able to manage or overcome those barriers?
12. Please describe if there is a shared vision in the partnership and what that shared vision is.
13. On average how many college credits does a typical CEP student earn?
14. Where do CEP students typically enroll after high school?

15. What is the transferability of CEP college credits to institutions other than the community college where they earned their CEP credits?
16. Are you aware of any state, county, or executive staff initiatives offer CEP? If yes, please explain the initiatives.
17. Anything else that you would like to add to describe how and why New Jersey community colleges and high schools partner to offer CEP and how the decision is made to offer a specific CEP course?

Appendix C

High School Teacher Qualified as College Adjunct Teaching CEP Course (see Appendix B for College and High School Administrator and College Faculty) Interview Protocol

Hi, my name is Darlene Pickerell. I am a doctoral student researcher conducting my study of Concurrent Enrollment Program (CEP) partnerships exploring collaboration, student engagement, and college readiness. Please review the Informed Consent Form for this interview and let me know if you have any questions. I appreciate your time and expertise to provide your unique perspective of your experience with CEP partnerships in New Jersey. I anticipate the interview will be completed within 60 minutes. If more time is needed I will ask if you would like to continue or schedule another appointment time.

1. What is your role as it pertains to CEP and how long have you served in this role?
2. What CEP course do you teach?
3. What are the reasons and benefits of offering CEP?
4. Do you know who initiated the conversation to offer CEP?
    a. Were you involved in the decision process to offer CEP?
    b. Who else was involved in the decision?
    c. Who made the final decision to implement CEP?
    d. How was the decision made to offer specific CEP courses (what was the process)?
5. Who is currently involved in the CEP partnership?
    a. How often do participants in the partnership meet and who attends?
    b. Who typically runs the CEP meeting?
    c. What is the focus and typical topics of the meeting?
    d. What is the atmosphere (cooperative/challenging/positive/negative) of the meeting?
    e. What resources (such as facilities for meetings, administrative assistance, supplies, etc.) are shared in the CEP partnership?

f. How are current decisions made?

g. Please describe informal communication between meetings.

6. Why are specific CEP courses offered?
    a. How, if at all, does offering CEP math and English provide an opportunity for college readiness?
    b. How is CEP math unique when only three years of high school math are required?
    c. What is the approximate percentage of time spent in class lecture, group assignments, experiential learning?
7. What factors were considered when deciding to offer CEP courses? (probe: such as course alignment, qualified teacher, maintaining college readiness, promotes student engagement through academic involvement, time on task, quality of effort, etc.)
8. How, if at all, does collaboration between the college and high school facilitate offering CEP?
9. What strategies promote a pipeline for students from high school to college and why?
    a. How does CEP fit into the pipeline from high school to college?
10. How would you describe the relationship between the community college and high school (favorable, unfavorable, neutral, authoritative, etc.)?
    a. Please provide examples if there is mutual respect.
11. Were there any barriers to offering CEP? If so, what were they and how were you able to manage or overcome those barriers?
12. Please describe if there is a shared vision in the partnership and what that shared vision is.
13. On average how many college credits does a typical CEP student earn?

14. Where do CEP students typically enroll after high school?
15. What is the transferability of CEP college credits to institutions other than the community college where they earned their CEP credits?
16. Are you aware of any state, county, or executive staff initiatives offer CEP? If yes, please explain the initiatives.
17. Anything else that you would like to add to describe how and why New Jersey community colleges and high schools partner to offer CEP and how the decision is made to offer a specific CEP course?

Appendix D

Documentation Request Protocol

E-mail for documentation request:

Dear CEP College Administrator research participant:

Thank you for agreeing to participate in the research of New Jersey Community College and High School Concurrent Enrollment Program (CEP) partnerships. One of the research instruments is documentation collection and analysis. While it is not a requirement of your participation, I would greatly appreciate it if you can provide the following information and documents:

The year CEP partnerships began with your institution: _____

The number of partner institutions you work with: _____

The types of institutions you work with (i.e. comprehensive high schools, charter schools,

private schools, home school, vocational technical schools, etc.):

_____

_____

The number of CEP courses offered: _____

The CEP course subjects offered: _____

_____ _____

(Please feel free to add more lines for additional subjects.)

The following documentation is also voluntary and not required as part of your participation. It is important to the research and greatly appreciated if you can provide any or all of these documents:

1. Written CEP agreement templates
2. CEP brochures and/or promotional material
3. CEP policies, procedures, and processes

Documentation will not be shared and I will maintain confidentiality by only including summary data in my findings. Data and documentation will be retain for six years

according to Rowan protocol. If you have questions about my documentation collection please contact myself or Dr. Monica Kerrigan at 856-256-4500 x 53648 kerriganm@rowan.edu as chairperson of my Dissertation Committee.

Sincerely,

Darlene Pickerell
Raritan Valley Community College
Darlene.Pickerell@raritanval.edu
908-526-1200 x8456
Doctoral student at Rowan University, Community College Leadership Institute

Appendix E

The Wilder Collaboration Factors Inventory

_____ _____

Name of Collaboration Project Date

Statements about Your Collaborative Group:

Factor	Statement	Strongly Disagree	Disagree	Neutral, No Opinion	Agree	Strongly Agree
History of collaboration or cooperation in the community	1. Agencies in our community have a history of working together.	1	2	3	4	5
	2. Trying to solve problems through collaboration has been common in this community. It has been done a lot before.	1	2	3	4	5
Collaborative group seen as a legitimate leader in the community	3. Leaders in this community who are not part of our collaborative group seem hopeful about what we can accomplish.	1	2	3	4	5
	4. Others (in this community) who are not a part of this collaboration would generally agree that the organizations involved in this collaborative project are the "right" organizations to make this work.	1	2	3	4	5
Favorable political and social climate	5. The political and social climate seems to be "right" for starting a collaborative project like this one.	1	2	3	4	5
	6. The time is right for this collaborative project.	1	2	3	4	5
Mutual respect,	7. People involved in our collaboration trust one another.	1	2	3	4	5

understanding, and trust	8. I have a lot of respect for the other people involved in this collaboration.	1	2	3	4	5
Factor	**Statement**	**Strongly Disagree**	**Disagree**	**Neutral, No Opinion**	**Agree**	**Strongly Agree**
Appropriate cross section of members	9. The people involved in our collaboration represent a cross section of those who have a stake in what we are trying to accomplish.	1	2	3	4	5
	10. All the organizations that we need to be members of this collaborative group have become members of group.	1	2	3	4	5
Members see collaboration as being in their self-interest	11. My organization will benefit from being involved in this collaboration.	1	2	3	4	5
Ability to compromise	12. People involved in our collaboration are willing to compromise on important aspects of our project.	1	2	3	4	5
Members share a stake in both process and outcome	13. The organizations that belong to our collaborative group invest the right amount of time in our collaborative efforts.	1	2	3	4	5
	14. Everyone who is a member of our collaborative group wants this project to succeed	1	2	3	4	5
	15. The level of commitment among the collaboration participants is high.	1	2	3	4	5
Multiple layers of participation	16. When the collaborative group makes major decisions, there is always enough time for members to take information back to their organizations to confer with colleagues about what the decision should be.	1	2	3	4	5
	17. Each of the people who participate in decisions in	1	2	3	4	5

	this collaborative group can speak for the entire organization they represent.					
Factor	**Statement**	**Strongly Disagree**	**Disagree**	**Neutral, No Opinion**	**Agree**	**Strongly Agree**
Flexibility	18. There is a lot of flexibility when decisions are made; people are open to discussing different options.	1	2	3	4	5
	19. People in this collaborative group are open to different approaches to how we can do our work. They are willing to consider different ways of working.	1	2	3	4	5
Development of clear roles and policy guidelines	20. People in this collaborative group have a clear sense of their roles and responsibilities.	1	2	3	4	5
	21. There is a clear process for making decisions among the partners in this collaboration.	1	2	3	4	5

Appendix F

Online Survey Protocol

You are invited to participate in this online research survey entitled the Wilder Collaboration Factors Inventory. You are included in this survey because I will use this information as part of my research on Concurrent Enrollment Program Partnerships to identify collaborations factors of the partnership. The number of subjects to be enrolled in the study will be approximately 20. The survey may take approximately 15 to 20 minutes to complete. Your participation is voluntary. If you do not wish to participate in this survey, do not respond to this online survey. Completing this survey indicates that you are voluntarily giving consent to participate in the survey.

The purpose of this research study understanding the college and high school administrator and faculty (including high school teachers) perspectives about collaboration, student engagement, and college readiness associated with Concurrent Enrollment Programs (CEP). This study is being conducted by a researcher in the Department of Education at Rowan University. The Principal Investigator of the study is Darlene Pickerell.

There are no more than minimal foreseeable risks or discomforts associated with this survey. There may be no direct benefit to you, however, by participating in this study, you may help to understand New Jersey Concurrent Enrollment Program partnerships.

Your response will be kept confidential. According to the Rowan University Institutional Research Board website, confidentiality is the responsibility for limiting disclosure of private matters. This includes the responsibility to use, disclose, or release such information with the knowledge and consent of the individual identified. I will download the data without personal identifiers onto a secure computer file and the information will be retained for six years after published according to Rowan protocol. The research will not include your individual information. If you have any questions about the survey, you can contact Darlene Pickerell 908-526-1200 x8456 or Darlene.Pickerell@raritanval.edu or Dr. Monica Kerrigan 856-256-4500 x53658 kerriganm@rowan.edu. Dr. Kerrigan is the chairperson of the Dissertation Committee for Darlene Pickerell. Please complete the checkbox below.

To participate in this survey, you must be 18 years or older. Place a check box here ☐

Completing this survey indicates that you are voluntarily giving consent to participate in the survey ☐

Please e-mail this information back with the 2 boxes checked above. I will then send an e-mail with your unique identification code and the survey link to participate in the online survey.

Thank you, Darlene Pickerell, Doctoral student at Rowan University, Community College Leadership Institute

Raritan Valley Community College
908-526-1200 x8456