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STUDENTS' EXPERIENCES: AN EXAMINATION OF THE ACADEMIC SUCCESS OF DEVELOPMENTAL EDUCATION STUDENTS IN COREQUISITE COURSES

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ABSTRACT

STUDENTS' EXPERIENCES: AN EXAMINATION OF THE ACADEMIC SUCCESS OF DEVELOPMENTAL EDUCATION STUDENTS IN COREQUISITE COURSES

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A significant number of students enter community colleges with developmental education (DE) needs in reading, writing, and mathematics. Many of these students are typically referred to more than one level of DE courses before they can enroll in a college-level course. This has led to lower than desired success rate of DE students over the years. As administrators look for ways to improve DE student outcomes, many institutions have now adopted the corequisite model on account of results of several quantitative studies, which reveal high success rates of DE students enrolled in corequisite courses.

With the corequisite model being widely accepted across different states, it is important to understand how the model promotes the academic success of students, specifically from the students' perspectives. The purpose of this qualitative case study was to explore the experiences of (DE) students enrolled in a corequisite course at an urban community college in New York State. The study also examined the factors that facilitated or impeded their academic success in the corequisite course. For this study, academic success is defined by a student who successfully completes the DE course with a grade of P and successfully pass the gateway course with a grade of A, B, C, or D, and enroll in the subsequent semester.

Participants included a purposeful sample of eight students who completed a math or English corequisite course in fall 2021 and re-enrolled in spring 2022, as well as two faculty members who have taught DE courses for more than ten years. The researcher conducted virtual semi-structured individual interviews and focus group interview, and reviewed relevant documents. The data analysis employed inductive coding which provided themes and sub-themes interpreted through the theoretical lens of Student Integration, (Tinto,1993) and Student Involvement (Astin, 1999). The findings from this study contribute to the expansion of the literature reviewed and have significant implications for DE policy and practice.

DEDICATION

This dissertation and all of my work towards this accomplishment is dedicated to:

The loving memory of my mother, Doaris Elizabeth Lewis, who believed education is the key to success and encouraged me towards the pursuit of education.

The loving memory of my niece, Junel Latanya Batson, who modeled my educational pursuits so much that it inspired me to be the best role model I could be.

My father, Wendell Woolery, who pushed me at an early age and natured my love for learning.

Most importantly, to my Lord and Savior Jesus Christ. You guided me every step of the way, and gave me a plan for completion. Everything that I have achieved throughout this process is all because of you Lord.

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I am also grateful to the eight students and two faculty members who enthusiastically shared their thoughts and experiences on the corequisite model for this research. Through their willingness to share their experiences, I am more persuaded that the decision-making process for developmental education policy and practice should consider the perspectives of its' participants.

I would like to also express my appreciation to all my family, friends, and colleagues for their prayers, support, and words of encouragement. I am thankful for various points in the process where you made yourself available to talk through an idea, critique my writing, or listen to my frustrations. My fellow BMCC/Hostos Cohort members, thank you for the moments shared in finding solutions to the many challenges on this journey that seemed like it would never end, this accomplishment is proof that there is light at the end of the tunnel.

Finally, I must acknowledge two quotes that have inspired me throughout my educational journey and especially throughout this doctoral process:

Labor Omnia Vincit - hard work overcomes all difficulties

Motto, Merl Grove High School

Heights by great men reached and kept were not attained by sudden flight, but they, while their companions slept, were toiling upwards through the night.

Henry Longfellow

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CHAPTER 1: INTRODUCTION

Community colleges are an important part of the higher education landscape; they enroll a large portion of America's college-going population. Weiss et al. (2015) points out that in 1963, community colleges enrolled 740,000 students and by 2011, enrollment had increased to 7.1 million students, which shows a significant increase from 15% to 34% over the period. Though fall 2021 statistics show a decline in total enrollment (possibly due to the Covid-19 pandemic), data indicates that community colleges continue to serve a large portion of America's college-going population. Demographically, student population data reveals that in fall 2012, 45% of all undergraduates with an average age of twenty-eight attended a community college, of which 56% were Native American, 49% were Hispanic, 44% Asian/Pacific Islander, and 42% Blacks (McNair, 2013). Despite the upsurge in access for many nontraditional, low-income, and minority students, several authors point out that majority do not enroll in or complete gateway courses (Bailey et al., 2013; Complete College America, 2012; Moss & Yeaton, 2006). The common consensus points to an urgent need to improve student outcomes at community colleges.

One particular area of great concern is the number of students who enter community colleges academically underprepared (Fike & Fike, 2008). *Underprepared* refers to entering students who do not meet college level course requirements in English and Mathematics (Fike & Fike, 2008; Moss & Yeaton, 2006). These students are usually placed in developmental education (DE) and only a small percentage of them complete their DE courses as shown by many studies. DE is an educational approach which systematically considers the life circumstances of students and addresses a wide range of

needs in each student's life (Moss & Yeaton, 2006). Through this process, DE students are placed in a non-credit reading, writing or math course with supplemental instruction aimed at preparing them for credit-bearing, college level courses. Yet, many DE courses continue to show low completion and pass rates which affect the overall academic success of students.

The terms academic success, academic achievement and student success are often used interchangeably in the conversation surrounding community college students' outcomes. For the purpose of this study, academic success refers to the ability of a student to successfully complete a DE course with a grade of P and successfully pass a gateway course with a grade of A, B, C, or D. The student also re-enrolls in the following semester. Several studies link passing DE courses and re-enrollment in the subsequent semester to success outcomes (Fike & Fike, 2008), as such, this study defines academic success to include both passing DE courses and subsequent re-enrollment.

Data from the Center for Analysis and Post-Secondary Readiness shows that in 2003-2004, students entered community colleges with one or more DE course needs. With that, Moss and Yeaton (2006) postulate that students with DE course needs are less likely to progress to their second year than students who are not placed in DE courses. In addition, Complete College America (2012) reports that 30% of DE students do not show up for the first course or subsequent courses, and of those who complete their DE course, 30% do not attempt gateway courses within two years. It can be concluded that if students do not achieve academic success this can lead to overall low retention and graduation rates and a negative impact on community college improvement efforts.

With current data indicating a continued trend, Schnee (2014) writes that DE programs are broken and that the placement of close to 60% of the nation's community college students in non-credit bearing DE courses, leads to low retention rates. Similarly, other policy reports describe remediation as higher education's bridge to nowhere, and argue that the 1.7 million students who enroll in DE courses each year do not reach their destination in terms of graduation (Complete College America, 2012).

Over the years, despite several efforts and the implementation of high impact practices such as learning communities, institutions continue to experience low academic success of students enrolled in DE courses. Additionally, both policy makers and administrators recognize the unnecessary financial and personal cost to students which have brought the need for DE programs at the community college level under heavy scrutiny (Complete College America, 2012; Cooper et al., 2019; Schnee, 2014). To that end, many researchers have been following and highlighting the success of the corequisite model which has been mandated across the 50 states and has shown that the redesigned courses are more beneficial for students than traditional non-credit DE courses (Barhoum, 2018; Cooper et al., 2019; Complete College America, 2012).

Barhoum (2018) defines corequisite as non-credit classes that are taught concurrently with credit courses instead of the traditional DE prerequisite courses. Under DE reform at the study site, corequisite refers to three credit pathway English composition or pathways math and quantitative reasoning courses that allow enrollment of students who are under-prepared. Many quantitative studies indicate the effectiveness of the corequisite model in improving student success and a 2012 report from Complete College America advocate that the corequisite model will eliminate the "bridge to

nowhere" that developmental education has led to over the last 20 years. Its latest 2021 report proposes that with proven research, the corequisite model should be the norm for institutions (Complete College America, 2021).

Though there have been many successes of the corequisite model, research shows mixed reviews. For example, researchers at the Community College Research Center (CCRC) are of the opinion that corequisite models have a potential as part of a comprehensive reform of developmental education (Bailey et al., 2013). Conversely, Goudas and Boylan (2013) point out fundamental flaws in the interpretation of data by Bailey et al. (2013), stating that their research is overgeneralized and seeks to advance the reformed agenda of the corequisite course model. Bailey et al. (2013) response to this claim emphasizes the success of the corequisite model in improving student success, however, the authors clearly state that they do not suggest that institutions completely eliminate the traditional forms of developmental education (Bailey et al., 2013).

In addition, critics caution institutions in hastily adopting the corequisite model, noting that evidence of its success solely relies on the quasi-experimental regression discontinuity design, which they note is a relatively new and imperfect method of analyses (Bailey et al., 2013). Additionally, Cooper et al. (2019) suggest that many studies on the corequisite model do not address the effectiveness of the model, alluding to the need for equity among successes. They further point to two studies conducted by Jaggars et al. (2015) which shows mixed results in the outcomes of various corequisite programs. One study showed a statistically positive result for DE students in higher entry-level course completion, while another study showed little impact on success within

subsequent courses. Cooper et al. (2019) concludes that adaptations of the corequisite model should be based on variables that influence student outcomes.

These arguments have intensified the debate surrounding DE reform leading to a need to better understand how students experience the corequisite model and how participation in the model influences their academic success. As such, this study seeks to qualitatively explore DE students' experiences within a corequisite model at a community college in New York State. The study also seeks to understand how the corequisite model influences student involvement, as well as their academic and social integration, leading to academic success. Researchers have theorized that when students are more engaged with faculty, staff, student peers, and with the subject matter, they are more likely to learn and achieve successful outcomes (Astin, 1999; Tinto, 1997).

Furthermore, the corequisite model is being promoted and widely instituted in many community colleges across the fifty states (Hodges et al., 2020), it is therefore imperative that educators and policy makers understand the experiences of students within these programs. Moreover, policymakers tend to make decisions often based on quantitative studies, leaving out the student experience and perspective. As the research on the effectiveness of the corequisite model is mixed and as decisions and policies continue to change surrounding developmental education, it is important to ask how or what can be learned from these students now to better inform other policy changes. This can be ascertained from DE students whom these policies are made to support.

Additionally, in the context of the state mandates on corequisite policies and the urgent push to implement the corequisite model, the question arises – how are students experiencing the corequisite course model and how is the corequisite model designed to

effectively use students time, therefore promoting involvement and increasing academic success.

Though some institutions have reported improved success rates of students placed in developmental education courses through use of the corequisite model, many students placed in developmental education corequisite courses continue to experience challenges passing these courses. In some cases, a student may pass the developmental education portion and is unsuccessful in the college-level portion, resulting in the need to repeat the college level portion the upcoming semester. In other cases, some students continue to struggle in both sections of the corequisite course. Consequently, low academic success continues to impact the financial cost of DE students and their time to completion. Though these challenges show varying trajectories for DE students, what is evident, is that, limited research exists on students' perceptions and experiences in corequisite courses.

Purpose of the Study

The purpose of this qualitative case study is to explore DE students' experience in a corequisite model, at a community college in New York State. An exploration of DE students' experiences of the corequisite model will provide perspectives directly from students on how participation in the corequisite model promotes academic success. Due to the recent implementation of this model at the study site, the academic success or lack thereof of the students enrolled in corequisite courses can be used to determine how the study site will continue its DE policy changes.

Additionally, this research seeks to explore the experiences of students placed in corequisite courses and to understand the factors that facilitate or impede their academic

success in these courses. The study can answer these questions and provide meaningful insights to the study site. This is in line with a recommendation from researchers who stipulate that efforts towards improving student success cannot follow a one-size fits all approach. Institutions must conduct research and implement programs that are specific to their institution and analyze and use data that is available to help make data-driven decisions (Cole et al., 2018).

Finally, the findings of the proposed study will provide theoretical insights into the operations of a corequisite model designed for DE students' at a community college in New York State. Based on the experiences documented by students, administrators can gain a better understanding of what factors promote or impede academic success within the corequisite model and what may be needed to further support students. Overall, the findings of this study will contribute to the scholarly literature on DE student outcomes and provide direction on how community colleges make decisions surrounding DE students, particularly facilitating and improving program outcomes for corequisite courses.

Research Questions

This study seeks to answer one overarching question, with two sub-questions:

1. How does participation in the corequisite model promote the academic success of students placed in developmental education in a community college in New York State (NYS)?
    A. What are the factors that facilitate the academic success of students taking developmental education corequisite courses?

B. What are the factors that impede the academic success of students taking developmental education corequisite courses?

Theoretical Framework

There is reason to believe that students' academic success is influenced by (i) the amount of time and energy a student applies to their learning in the corequisite model and (ii) their level of academic and social engagement, especially with faculty and student peers. This affirms both theories of Astin (1999) and Tinto (1993). Therefore, two student development theories – Student Involvement (Astin, 1999) and Student Integration (Tinto, 1993) - guide this work.

Astin (1999) defines involvement as the quantity and quality of the physical and psychological energy that students invest in the college experience (p. 528). Whereas Tinto postulates that students are more likely to re-enroll in an institution if they are academically and socially integrated into the institution (Tinto,1993). The use of both frameworks provide insight into two areas that are interrelated: the impact of the corequisite model on DE students' academic success and the role of the classroom experience in that process. A synopsis of both theories is discussed here, with greater detail to follow in chapter two.

Originally published in 1984, Astin's (1999) theory of student involvement "encourages educators to focus less on what they do and more on what the student does: how motivated the student is and how much time and energy the student devotes to the learning process" (p. 522). Within the theory of student involvement, the most important institutional resource may be student time (Astin, 1999). That is, Astin associates the amount of and quality of time students spend on learning, with their success outcome.

Therefore, in the context of this study, there is reason to believe that students' academic success is based on the amount of and quality of time a student spends working on the learning goals of the corequisite course. Astin's theory, suggests that students will achieve academic success equivalent to the quantity and quality of involvement they put into the corequisite program. Likewise, the co-requisite program will be most effective if it is able to promote student involvement (Astin, 1999).

Student involvement and student integration are also connected. According to the Student Integration Model of renowned retention theorist, Vincent Tinto, students are more likely to continue at an institution if they become more academically and socially involved in the institution (Tinto, 1993). Notably, Tinto also cites and support Astin's 1984 theory, underscoring the importance of involvement and integration and student's influence on learning. The author also emphasizes that the classroom experience should be viewed not only in relation to student learning but also as it relates to student success (Tinto, 1997). Tinto's integration model has been widely used by educators and policy makers in efforts to improve retention rates of students. The theory is relevant to community college students, particularly underprepared students, and researchers such as Karp et al. (2008) propose that integration is an important construct in understanding the experiences of new students in community colleges.

Using Tinto's student integration model, this study will explore how DE students are able to integrate academically and socially within their corequisite course and how this integration allows them to pass the course and progress to the following semester, thereby achieving academic success. Finally, the connection of the two theories will be

used to explore the ways that DE students engage with the corequisite model and the advantages and challenges they experience as they seek academic success.

The research questions guide this study as they explore key concepts of both theories. Specifically, the qualitative case study method of data collection will allow the researcher to gain a rich perspective of the corequisite model as well as uncover how DE students' involvement and integration have influenced how the corequisite model impacts students' experiences and academic success. In addition, the proposed study will utilize semi-structured interviews and focus group questions to explore ways that DE students engage with their corequisite courses and the factors that facilitate or impede their academic success. Also, semi-structured interviews from faculty will uncover their views on student level of involvement and integration in corequisite courses. Conclusively, both involvement and integration matters (Tinto, 1997). As such, use of both theories in the proposed study will provide a comprehensive understanding of how students achieve academic success as a result of being involved in a corequisite model.

Significance of the Study

The findings from this study have significant implications for DE policy and practice. A review of the literature on the corequisite model shows a gap in the literature on program assessment from the institutional level, and a further gap in qualitative studies that explores the experiences of DE students within the corequisite model. Most studies are quantitative in nature and focus on the success of the model which has prompted reform efforts across the 50 states (Barhoum, 2018; Hodges et al., 2020). Notably, several authors point to the importance of educators involving students in the

conversation through research (Schnee, 2014) noting that the suggestions students make can be beneficial to policy and practice (Taines, 2014).

Historically, studies conducted on education in the United States rarely involved the perspective of students, teachers, administrators and others involved in the process of education. Therefore, interviewing is a sufficient avenue of enquiry in understanding the meaning these individuals make of their experiences (Seidman, 1991). Further research is needed to capture the voices of students and to qualitatively explore how their participation in the corequisite model promotes academic success. Moreover, expert researchers on student success emphasize that students' experiences are central to any reform effort (Tinto, 1999), therefore examining the corequisite model through DE students experiences will add value to DE reform.

This study will also extend research showing the applicability of Tinto's (1999) student integration model to community college students. Though academic and social integration play a keen role in students' academic success, their concepts have not transferred to practical applications in terms of what can be done to enhance academic and social engagement of DE students (Tinto, 2012). Therefore, for the corequisite model to achieve its intended outcomes, it must sufficiently elicit active participation of students in the program. This affirms Astin's (1999) theory and this study will provide practical evidence, to confirm postulates four and five of said theory.

According to postulate four "the amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in the program. Postulate five stipulates that

the effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement" (Astin, 1999, p. 519).

Finally, the findings from the study will add to the DE research and help to qualitatively understand how the corequisite model impacts DE student success. While the findings may not be generalized to all community colleges, the research questions can be beneficial for administrators at community college with a similar setting who seek to identify challenges and better support of their DE population.

Definition of Terms

The following terms are used throughout this research proposal and are defined in the context of the study:

Academic Success is used interchangeably with terms such as academic achievement and student success. Steinmayr et al. (2016) describes the term academic achievement as performance outcomes that reflect the extent to which a student has accomplished specific academic goals. Complete College America (2012) defines student success as a student passing the first college level course. For the purpose of this study *academic success* is defined by a student successfully completing the developmental education course with a grade of P and successfully passing the gateway course with a grade of A, B, C, or D, and enrolled in the subsequent semester.

The Corequisite model allows students to enroll in noncredit courses that are taught concurrently with credit courses instead of the usual traditional prerequisite developmental education (Barhoum, 2018). University-wide mandate implemented at the study site refers to *corequisite* as a three credits pathway English composition or

pathways math and quantitative reasoning course that allows enrollment of students who are not skills proficient.

Developmental education (DE) is an educational approach which systematically considers the life circumstances of students and addresses a wide range of needs in each student's life (Moss & Yeaton, 2006).

Developmental education (DE) student refers to a student who is underprepared and is required to take a DE course(s). The student must successfully complete their required DE course(s) before they can enroll in a gateway course. According to Mulvey (2009) DE students are demographically considered to be nontraditional, first-generation, and minority students.

Gateway courses refer to introductory, credit-bearing, college level, and general education courses. For example, at the study site a gateway math course is MAT 120.

High impact practices (HIPs) are learning practices that have been proven to increase rates of student retention and student engagement. The practices include learning communities, which are beneficial to college students, especially historically underserved students (Association of American Colleges and Universities, AAC&U).

Learning Communities encourage integration of learning across courses by allowing students to take two or more courses as a group where they work closely with faculty and student peers (Association of American Colleges and Universities, AAC&U).

Open door policy refers to the process whereby community colleges accept students regardless of their academic ability

Retention rates is defined as the percentage of first-time degree/certificate-seeking students from the previous fall who either re-enrolled or successfully completed their program by the current fall (Tinto, 1999).

Student involvement refers to a student who is personally involved with his or her college experience both in and outside the classroom (Astin, 1999).

Traditional developmental education requires under-prepared students based on their placement scores to take and successfully complete one or a series of noncredit courses prior to enrolling in a college level course.

Traditional developmental education courses refer to courses in math and English, which are often divided into a sequence of classes. For example, at the study site a DE math sequence included MAT 10, MAT 15, and MAT 20 before a student can enroll in a MAT 120 gateway course.

Underprepared students refer to entering students who do not meet college level course requirements in English and Mathematics. These students are usually placed in developmental education (Moss & Yeaton, 2006).

Summary

Chapter one provided an introduction to the research topic and identified the research questions that guide this study. The chapter also detailed the purpose and the significance of this study, introduced guiding theoretical perspectives and defined key terms used throughout the study. Chapter two discusses two complimentary theories that informs the design and interpretation of the study and examines relevant literature related to developmental education and student success at community colleges. Chapter three

describes the methodological design and procedures of the proposed study, including the procedures specific to qualitative case study research.

CHAPTER 2: REVIEW OF RELATED RESEACH

As stated in chapter one, community colleges have historically played an important role in educating a large portion of America's population. Appallingly, even though enrollment rates have increased, student success rates remained low. With this, improving student outcomes has increasingly become a key component of the conversation surrounding higher education accountability (Weiss et al., 2015). Another component of the conversation surrounds developmental education (DE), and the low pass rate of the student's in DE courses which affects their re-enrollment in subsequent semesters.

Additionally, based on the costs that under-prepared students have incurred while progressing through DE courses and the challenges they face resulting in opportunities for drop-out at several exit points, the conversation has turned its focus on the effectiveness of the new corequisite model which is being hailed by various researchers (Adams, 2020; Complete College America, 2012; Community College Research Center, 2014) as the long-awaited game changer in decreasing exit points in DE programs and improving the academic success of DE students.

This chapter will first discuss academic success in light of two theories: - Tinto (1993) and Astin (1999). Over the years the theories have provided educators tools to improve learning environments and promote student success. The research questions guided this study as they explored key concepts of both theories relating to how DE students' participation in the corequisite model promote their academic success and what factors facilitate or impede the success of these students. Finally, the chapter will provide a critical review of research literature that pertains to the experiences of students in DE programs and the impact the corequisite model has made across several states.

Theoretical Framework

DE students face many challenges that negatively impact their ability to successfully complete their required DE courses in a timely manner and progress to subsequent semesters. As such, the corequisite model is designed to improve success rates by significantly reducing exit points and the duration of time students spend in DE (Adams, 2020). To understand how DE students' participation within the corequisite model impacts their academic success, the proposed study will utilize the theoretical concepts of Tinto's (1993) Student Integration Model as well as Astin's (1999) Theory of Student Involvement. The two theories are complementary and connect to several aspects of a corequisite model, with the overall intention of promoting student learning and increasing student success. Adams (2020) points to seven key characteristics of any corequisite model which shows an overall support for students taking corequisite courses. These are discussed in more detail in the review of related literature. The theories will help to explore aspects of the study site's corequisite model which facilitates academic success.

Astin's involvement theory and Tinto's theory on student integration have been extensively tested, and are two of the most widely used frameworks in research on the relationship between student experience and its impact on student success in and outside of the classroom. Their research also emphasizes that a student's learning is strongly predicted by high levels of involvement and integration (Astin, 1999; Tinto 1993). Furthermore, there is reason to believe that students' involvement in their academic pursuits as well as their integration into the academic and social environment of the college is extremely important to their academic success as shown by empirical evidence

from Astin (1999) and Tinto (1993). In regards to community college students, many are oftentimes pulled away by other life circumstances such as family and work, resulting in a negative impact on their studies. Therefore, involvement and integration are central to the academic success of these students (Tinto, 1997).

Finally, there is reason to believe that various changes in curriculum and pedagogical programs can impact student outcomes as theorized by Tinto. The theory is therefore applicable to this study to show how the corequisite model impacts DE students' academic success. Astin's theory will be applied to examine what types of student involvement are nurtured by the corequisite model and how these involvements contribute to academic success. Interview and focus group questions designed by the proposed study will reveal how much time and energy students put into various components of the corequisite course and what factors have facilitated or impeded their academic success. The questions will also provide information on the role of faculty in supporting students as well as their perception of the model. Overall, the combination of these two key theories will provide a rich understanding on how the corequisite model promotes DE students' academic success and the role of the classroom experience in that process.

Theory of Student Integration (Tinto, 1993)

Tinto's student integration model offers higher education administrators a framework with which to develop and implement programs to promote completion (Tinto, 1993). According to the model, Tinto theorizes that students' progress through stages as they transition from being first time college students to being mature students (Fike & Fike, 2008). Each stage in the model is influenced by how the student integrates

both academically and socially. Based on this integration a student will decide to stay or leave the college (Tinto 1999).

In addition, Tinto (1999) notes that institutions often focus on the question of how they can retain their students, and notes that instead, institutions should consider students perspective and focus on how they can help students to persist. He stipulates that there are three major experiences that shape students motivation to stay in college and graduate. These are: (a) self-efficacy, (b) sense of belonging, and (c) perceived value of the curriculum. A strong sense of self-efficacy promotes goal attainment, while a weak sense undermines it. Tinto (1999) further notes that many students enter college with a sense that they have the ability to succeed, however there are some who do not. Even those who enter believing they have the ability to succeed may be challenged by the difficulties in adjusting, especially within the first-year (Tinto, 1999).

These stages are influenced by social and academic integration which lead to the student's decision to stay or leave college. Tinto (2012) posits that the more involved a student is in the social and academic life of the institution the more likely they are to learn and persist. He further states that sharing a curriculum provides students with a coherent interdisciplinary experience that promotes a deeper type of learning than is possible in stand-alone courses, bringing benefits to the student and the institution alike (Tinto, 2012). The assumption is that if a college provides enough structured opportunities for its' students to engage with the institution, students will become integrated into the college thereby increasing retention rates (Karp et al., 2008). As this study seeks to understand how participation in a corequisite model promotes academic success, it pulls from Tinto's theory, highlighting the pre-existing challenging life

circumstances that community college students face, especially those who are underprepared. To that end, it is important for institutions to provide adequate support to underprepared students to aid their completion of DE courses and subsequent enrollment.

It should be noted that Tinto's integration framework has been challenged in studying student retention at community colleges, particularly in relation to social integration. Researchers such as Karp et al. (2008) conducted in-depth interviews with first-year students at two urban community colleges to find out the challenges they experienced and how they engage with their institution. The findings showed that majority of the students developed attachments to their institution which was related to their persistence to their second year. The findings also showed that information networks that students developed in the classroom led to both academic and social integration of students (Karp et al., 2008).

Furthermore, Karp et al. (2008) stipulates that for many community college students, college integration is limited to their classroom. Therefore, knowledge of the support services available to them and feeling connected to their broader institution can prove challenging. Tinto expands his theory in later work to discuss how the dynamics of the classroom setting provides opportunity for a learning community, especially within a community college setting where the population consists of mainly commuter students (Tinto, 1997). Similar to learning communities the corequisite model is designed to improve student success and is used predominantly to support DE students. This study seeks to combine the theory along with Astin's Student Involvement theory to explore students' experiences within the corequisite model and to understand how the model promotes academic success.

Theory of Student Involvement (Astin, 1999)

Astins' Theory of Student Involvement, involves the amount of physical and psychological energy that the student devotes to the academic experience (Astin, 1999). Astin emphasizes that the level of involvement by a student is defined and identified by their behavior, therefore it is not what the student thinks or feels but more so what they do or how they behave. According to Astin (1999) the involvement theory has five basic postulates:

(i) Involvement refers to the investment of physical and psychological energy in various objects. The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination).

(ii) Regardless of its objects, involvement occurs along a continuum; that is, different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.

(iii) Involvement has both quantitative and qualitative features. The extent of the student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitatively (whether the student reviews and comprehends reading assignments or simply stares at the textbook and day dreams).

(iv) The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in the program.

(v) The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement. (p. 519)

Astin (1999) highlights the last two postulates noting that they are critical for administrators and policy makers to designing more effective educational programs for students. As corequisite courses are designed to improve student success this study will seek to test postulates four and five in regards to the impact of the corequisite course model on the academic success of students at a community college in NYS. Given that nontraditional students need more than passive retention efforts according to Astin (1999), the corequisite model provides a programmatic structure to impact curriculum and pedagogy.

Historically, Astin developed his theory from a 1975 longitudinal study of college dropouts. The study aimed to identify factors within the college environment that significantly affected the persistence of students in college. Results showed that student involvement predicted whether a student would drop out or stay in college. Additionally, Astin conducted a longitudinal study in 1977 of more than 200,000 students and examined over 80 different student outcomes based on several different types of involvement including academic involvement, student-faculty interaction, and place of residence. Findings suggested that academically involved students show a strong satisfaction with all aspects of college life except friendships with other students. Also, students who expressed satisfaction with all aspects of their college experience were shown to interact more frequently with faculty. Finally, students who lived on campus had a greater chance of persisting and aspiring to graduate or earn a professional degree (Astin, 1999).

It may be concluded that community college students are more likely to drop out of college than students at four-year institutions. This is attributed to the fact that both faculty and students work and attend on a part-time basis at community colleges (Astin, 1999). Astin (1999) further notes that in education, teachers and administrators often ignore or overlook what is going on with the student while concentrating on their own techniques. The author believes that use of the involvement approach can encourage educators to focus more on what the student is actually doing. The proposed study seeks to do that by exploring the experiences of students within a corequisite model to determine if and how student involvement impacts their academic success.

Synergy of Theory

Both Tinto's and Astin's theory are appropriate for this study. As indicated, earlier research conducted by both theorists describes characteristics and behaviors of students who typically are underprepared or are at-risk based on factors including socio-economic background and part-time status of students. These characteristics are identifiable in the student population at the study site. With reason to believe that the corequisite approach will decrease the existing exit points for DE students and improve their chances of success (Adams, 2020), the tools provided by these two theories can help institutions design effective learning environments and gain the full benefits of the corequisite model.

According to Astin (1999) "administrators and faculty members must recognize that every institutional policy and practice can affect the way students spend their time and the amount of effort they devote to academic pursuits" (p. 523) and those decisions also have a profound effect on non-academic involvement. The following section reviews relevant research on the application of these theories to the success of DE students.

Lastly, prior research from both theorists suggests that involvement and integration by students will lead to positive student outcomes (academic success) while their absence will lead to poor student outcomes and a negative impact on retention and graduation (Astin, 1999; Tinto, 1993).

Related Literature

As community colleges continue to enroll a large number of entering students who are underprepared, institutions are expected to continue to find ways to promote the success of these students. To promote improved student outcomes several authors point to the classroom experience as vital to integrating students into a college community (Karp et al. 2008; Park et al. 2013; Tinto, 1999; Tinto, 2012). To that end, the literature review will provide background information on the history of the community college in the higher education setting as well as the role of DE in educating students at community colleges. The review will also discuss key areas including institutional challenges and responses relating to the cost of developmental education to students, institutions, and the society on a whole; the factors that influence academic success of DE students; and how underprepared students have experienced and perceived developmental education programs.

In addition, various researchers underscore that insights from students can positively add to the conversation surrounding DE. Therefore, it is imperative that administrators and policy makers find ways to include underprepared students in the conversation and efforts to improve developmental education (Schnee, 2014). As such, the review will discuss this, particularly as there is continued challenges in improving student success which have led to new programs in the form of the corequisite model.

Lastly, the review of the literature will discuss various state mandates which have accelerated the pace in implementation of corequisite programs across the United States, as well as several qualitative and quantitative research from colleges that have successfully implemented a corequisite model.

Role of Community Colleges

Community colleges are publicly funded colleges which allows students to pursue an associate degree or certificate program in two years or less (Aspen Institute, 2021). Across the United States, community colleges serve multiple missions and play a significant role in training and education initiatives to meet the employment needs of the country (Nitecki, 2011). Their mission includes academic planning, workforce training, community enrichment and preparing students through remedial education (Aspen Institute; Dougherty et al., 2017). Once students complete their educational program they can choose to transfer to a four-year institution. The American Association of Community Colleges (AACC) fact sheet, shows that 1,044 community colleges are educating a total of 6.8 million students, of which 65% attend part-time and 35% attend full time (AACC, 2021).

Historically, due to their open-door policy, community colleges have played a key role in the educational infrastructure of the United States (Dougherty et al., 2017; Gupton, 2017) and have also served as a bridge into the workforce for many students. With the intention to promote democracy and workforce development, a network of community colleges was established through the Truman Commission Report of 1947, to provide access to post-secondary education and training to veterans returning from the war (Gupton, 2017). More recently, community colleges have received attention through

policy initiatives put forward by both national and local leaders. In 2009, President Obama put forward the American Graduation Initiative aimed at increasing graduation rates by 2020. This initiative highlights the importance of community colleges in providing general education, workforce training and social mobility (Gupton, 2017; Beaver, 2010).

In spite of their significant contribution to the U.S. society, community colleges are fundamentally plagued by poor completion rates (Dougherty et al., 2017). Several factors play a role in this including financial resources and family obligations, student academic preparation and academic motivation, institutional obstacles, and systematic challenges relating to the inadequate funding and poor articulation between high schools and public institutions (Dougherty et al., 2017; Moss & Yeaton, 2006; Fike & Fike, 2008). Other research point to the changes regarding student demographics, academic proficiency and social disengagement of community college students. As such, they are often described by the following characteristics: first-generation, low-income, academically under-prepared, part-time status, and ethnic minority (Astin, 1999; Mulvey, 2009; Tinto 1993).

Additionally, community college students' goals towards success differ from students at four-year institutions. Researchers such as Nitecki (2011) confers the challenges in defining success at community colleges due to the multiple missions and functions that exist and the varying needs of students. For example, some students may enroll in a course in order to increase personal skills while others may seek career advancement and others may enroll in a program to earn a certificate or an associate's degree. In an attempt to examine programs that positively impact retention, Nitecki (2011) points out that the most common measure of success is student graduation rate.

However, in the case of DE students, graduation is only possible if they complete DE courses and progress to the following semester. Despite how success is accomplished, Nitecki (2011) notes that the main challenge faced by all community colleges is how to increase student success.

Community College and Developmental Education (DE)

This challenge of increasing student success at community colleges is amplified by the significant numbers of underprepared students who enter community colleges and are placed in DE courses. Data from the Community College Research Renter (CCRC) shows a trend in poor academic outcomes for DE students. In the 2003-04 academic year, 49% of the students completed all DE courses attempted, 35% completed some, and 16% completed only one DE course (Community College Research Center, 2014). In the 2013-14 academic year, 60% of students took one or more DE course within three years (Community College Research Center, 2014).

A study conducted by CCRC on 57 community colleges revealed that only 33% of students referred to developmental math complete their entire DE sequence and only 46% referred to developmental reading do the same (Community College Research Center, 2014). Another study of 250,000 community college students revealed that only 20% of students referred to developmental math and 37% of those students referred to developmental reading, passed their DE course and eventually passed the relevant gateway course within three years. Conversely, 12% of students referred to developmental math and 32% referred to developmental reading completed a college-level course in that subject without enrolling in the prescribed DE course (CCRC, 2014a).

These outcomes are evidence of some of the challenges community colleges continue to experience with DE.

Researchers attribute this challenge to the significant number of students who leave high school underprepared and unable to succeed in postsecondary education. Consequently, the need to promote success ultimately becomes the responsibility of higher education administrators. According to Arendale (2011) this need is not a new phenomenon and has existed since the 1960's with earlier remedial programs. With the rise of the accountability movement in the 1970's, and the implementation of open admission policies which significantly increased the percentage of underprepared students into community colleges, institutions began providing remedial programs which aimed to reduce or eliminate academic deficiencies (Fike & Fike, 2008; Moss & Yeaton, 2006). However, with concerns about the stigma associated with remedial education, institutions began shifting to the broader developmental education approach, which considered more systematically, the life circumstances of underprepared students (Moss & Yeaton, 2006). Arendale (2011) notes that from the mid 1940's to early 1970's remedial programs predominantly served white males students, non-traditional males and females, first generation, economically disadvantage, and students of color. The 1970's newly implemented DE programs continued to serve these population with the addition of adult students returning to post-secondary education or attending for the first time (Arendale, 2011).

It is almost commonplace to say that community colleges and developmental education go hand in hand. To this point, Arendale (2011) stipulates that bridging the academic preparation gap has been constant in the history of American higher education.

As such, within the history of developmental education it is necessary to highlight the challenges with administering DE at community colleges, which has been a longstanding one. Notably, the challenges with developmental education have been widely attributed to the open admission policies that have led to an increase in number of underprepared students entering community colleges who do not meet college level course requirements in English and mathematics (Crews & Argon, 2007; Fike & Fike, 2008; Moss & Yeaton, 2006).

Generally, DE consist of reading, writing and math courses and each institution may develop a sequence of courses to suit each subject area. Entering students are then placed in DE courses based on their placement score. Students who place at the lower level may have multiple course sequence and must successfully complete all the courses in the sequence before enrolling in a college-level course. For example, under traditional DE at the study site, before the co-requisite model was implemented, a DE student with a low score would need to complete MAT 10, then MAT 20 before they can enroll in a MAT 120 college-level course. Changes to this sequence is discussed later under the corequisite model.

Based on the characteristics of DE students (females, less economically secure and a member of a minority group) they often transfer some of their challenging personal circumstances into the educational setting (Crews & Argon, 2007; Mulvey, 2009; Tinto, 1999), which leads to further challenges adjusting to the college environment and workload. According to Tinto, the competing demands on underprepared students then lead to low persistence and high dropout rates. Consequently, the institution has to invest time, effort, and substantial resource in developmental education programs in order to

help these students acquire the necessary skills to move to college level courses and succeed in college (Tinto, 1999). These challenges have amplified the cost to not only the institution but also to students as well as taxpayers.

A plethora of studies have examined the cost of developmental education, for example, Pretlow and Wathington (2012) assessed the work of a previous study conducted by Breneman and Haarlow (1998), to provide an updated national estimate of the cost of developmental education. The updated estimate from the academic year 2004-2005 data revealed that the national cost estimate of developmental education to public institutions was $1.13 billion, a 13% increase over previous estimate. The authors used their work to call attention to states to make data on developmental education both transparent and public (Pretlow & Wathington, 2012).

Other research from a 2011 study by the Alliance for Excellent Education revealed that developmental education programs cost the United States approximately $5.6 billion between 2007 and 2008 school year. This represents direct costs to both students and the institutions of $3.6 billion and $2 billion in additional cost to students who drop out before completing their degree. (Bettinger et al., 2013). Other data from the U.S. Department of Education showed an estimated range in taxpayer cost per student ranging from $1,607 to $2,008 for two-year colleges (Bettinger et al., 2013). The increased cost to both students and institutions highlights the urgent need to improve developmental education programs to increase student retention, therefore decreasing the financial burden placed on students, institutions and taxpayers.

Lastly, one of the challenges identified with DE is that though students may have significant academic developmental education needs, most students shun enrollment into

developmental education programs because of the stigma and the concern that it isolates and marginalizes them in stand-alone courses where they cannot earn college credits. As a result, administrators and policy makers continue to respond to these challenges by redesigning developmental courses and searching for ways to implement effective remediation programs more broadly (Bettinger et al., 2013). In this process, it is important for community college administrators to find out why students decide to stay or leave an institution (Tinto, 1999). As such, understanding the factors that influence academic success would be beneficial.

Factors that Influence Academic Success

Tinto (2012) stipulates that though policies within the United States have been able to increase access to college and reduce the gap in access between high and low-income students, the policies do not show success in translating the opportunity access provides into student success. Additionally, persistence and retention can be seen as variables for student success, however there are various factors that negatively influence these variables resulting in lower than desirable success rates. According to Schnee (2014), reports in the media suggest that the placement of more than half of the nation's community college students in non-credit bearing developmental courses may lead to low retention rates. Several researchers have since conducted studies on the various factors that may negatively influence the success of DE students including student age, student ethnicity, participation in developmental writing course, student completion status for developmental education, and high school experience (Crews & Argon, 2007; Fike & Fike, 2008; Kreysha, 2006).

In a study conducted by Fike and Fike (2008) the authors discuss the importance of educators understanding why students choose to leave or choose to stay at an institution. Accordingly, the purpose of the study was to empirically evaluate factors that predict first time in college (FTIC) retention for students enrolled in a Texas public urban community college. The authors conducted a quantitative retrospective study which analyzed the predictors of 9,200 FTIC students over a four-year period (in Fall 2001, 2002, 2003, 2004 semesters). The researchers noted that majority of the students in the sample were female (56%) and 99.8% of students enrolled in less than 20 semester hours. Additionally, about two thirds of the students were enrolled in developmental mathematics, and 22% enrolled in developmental reading, while 60% of students received financial aid. To predict student retention from fall-to-spring and fall to fall, the study used variables that are representative of these students.

Chi-square analyses were used to assess the distribution of student retention rates by academic year and multivariate regression models were used to predict the odds of student retention. The findings revealed that fall-to-spring reenrollment rates differed significantly, where about a third of the students who enrolled in the fall did not return in the spring and more than half of the students who enrolled in the fall did not return the subsequent fall semester. Fike and Fike (2008) stipulated that the findings related to developmental education (DE) courses emphasize the importance of DE to student retention, noting that the strongest positive correlate with re-enrollment was successful completion of developmental reading courses. Other positive correlates of reenrollment were receiving financial aid, taking an internet course, semester hours enrolled in the first semester and participation in student support services.

Considering the challenges of improving academic success at community colleges, this study provides important background information and theory and will be essential to the proposed study. It also highlights the characteristics that influence students decision to stay or leave an institution and underscore the role of DE to student retention. As such, it will be beneficial to understand how these characteristics influence academic success at the study institution, which has significant implications for the college in providing supports to meet the needs of its DE student population.

Student Experiences and Perception of Traditional Developmental Education

Findings from researchers show the challenges with traditional developmental education from the students' perspective. These studies emphasize that it is important for colleges to communicate clearly information regarding placement to increase student satisfaction and retention (Goeller, 2013) as well as consider students' perspectives (Schnee, 2014) and decision-making patterns in developing remediation programs (Park et al., 2016). One study examined the effects of Senate Bill 1720 (SB 1720) which removed the path of student placement based on test scores and placed the enrollment choice in the hands of students Park et al. (2016). The purpose of the study was to explore student enrollment decision patterns regarding developmental education (DE) and the factors that students considered when making their course enrollment decisions in an environment of increased choice. Park et al. (2016) conducted a pilot study at two colleges in the Florida College System through an online student decision-making survey, which was distributed via email by both institutions to all first-time enrollees in the fall 2014 semester. The survey was available for a period of two weeks and captured a total of 8,779 students across the two colleges. Participation was encouraged through a

drawing to receive $200 Amazon gift card and ten gift cards were awarded at each college.

Findings indicated that the respondents ranged from 16 to 53 years old, with 92% of students below age 25. A majority of the students identified as Latino (32%) followed by Whites (31%), Black (25%), Asian (6%) and Native American and other race (6%). The study saw more female (64%) participants than male and noted that 18% came from households making less than $11,000 annually (Park et al., 2016). The study revealed several general findings which were suggested to be in line with existing research. That is, students elected not to take optional DE courses even when advised to do so and were more likely to take a math DE even if it is optional. These students considered academic preparation to be an important factor in their decision-making process. In addition, students who considered the cost of DE, overall time to degree, and career goals as their deciding factors, found it appropriate to opt into college level courses, while a sizeable proportion of students opted not to take any DE courses and enroll directly in college-level courses (Park et al., 2016).

Finally, the data also revealed that future career goals and time to degree ranked amongst the most important factors for those who enrolled in college-level courses, while factors associated to high school grades in certain classes were more important for those who enrolled in DE classes (Park et al., 2016). The study is relevant to the proposed topic as it provides insight on how and why students make decisions surrounding DE courses and the impact of these choices on whether the student decides to stay or leave the institution. Overall, this will help to guide the interview questions as the proposed study

seeks to gain students perspectives in regards to the impact of DE on student academic success.

Another study conducted by Schnee (2014) explored developmental English students' experience of DE in the context of a first-semester learning community (LC) at an urban community college in NYS. This research discusses some findings on the learning community model which has similar characteristics to the co-requisite model and is also used to improve the success of students in DE programs. Learning communities according to the *Association of American Colleges and Universities*, encourage integration of learning across courses by allowing students to take two or more courses as a group where they work closely with faculty and student peers.

Schnee's study highlights the argument that placement of more than half of the nation's community college students in non-credit bearing developmental courses, may lead to low retention rates. Conducted as a qualitative longitudinal study at an urban community college in the northeast, data were collected through semi-structured interviews. The sample was a cohort of 15 students who placed into a first semester LC taking psychology and a student development course. First, students within the LC were sent a letter inviting them to participate in the study, the principal investigators then followed up with an in-class presentation about the research and students self-selected by returning signed consent forms (Schnee, 2014).

According to Schnee over the three-year duration of the study, the fifteen students who responded were interviewed once per semester during their first three semesters and once per year for the remainder of the study period. Qualitative data garnered through 30 and 90 minutes semi-structured interviews on student's academic performance and

progress, was triangulated against qualitative data collected through institutional records. The process of emergent coding revealed that participants expressed a collective sense of dissatisfaction with their DE placement and were concerned with the impact of remediation on their progression through the developmental sequence into college level courses (Schnee, 2014).

The study also highlights the varying perceptions on the cohort model for students, where some students found LC supportive and nurturing while others found it socially and academically limiting. The study connects to the proposed topic in presenting rigor in understanding the lived experiences of students placed in DE, particularly in relation to the new corequisite model. Additionally, the student scenarios show the varying trajectory of students who are placed in DE courses and adds to the continuous debate on the need to improve developmental education in regards to successful student outcomes.

Finally, VanOra (2019) designed a qualitative longitudinal study, which provides an in-depth account of DE students perceptions and experiences. The purpose of the study was to examine how community college students experience developmental coursework and how their perceptions evolved over time. The study was conducted at Kingsborough Community College, one of seven community colleges within the City University of New York (CUNY) system. The study consisted of a sample of 15 students (nine men and six women) who were the last cohort to be placed into the lowest level of developmental education (DE) reading and writing courses at the college. VanOra (2019) noted that all of the students were between the ages of 18 and 30 at the start of the study, twelve students spoke English as their native language, three were English language

learners, six of the students identified as White, four as Black or White Latino(a), three as Black or African American, one as biracial, and one as Asian (VanOra, 2019).

The researcher conducted recruitment speeches during the developmental reading and writing courses and then distributed emails to students. Participants were assured of confidentiality through the use of pseudonyms and provided with a Barnes & Noble gift card at the end of their interview. The researcher conducted five semi-structured interviews over a period of 3.5 years, noting that three interviews took place at the end of the students first three semesters while the final two interviews were conducted once per year for the duration of the study. The interviews were recorded, transcribed, and coded independently by two principal investigators. To improve validity, the researchers discussed the entire dataset in order to resolve the differing interpretations and utilized member checking which led to revisions of the initial interview protocol and interpretations (VanOra, 2019).

Inductive and thematic analysis identified central themes noting that all of the participants responded negatively to their initial placement into the lowest level of DE. However, by the end of the year, over 90% of students shared that DE courses helped them to become more confident and skilled writers. Following the second interview, approximately 50% of the students expressed gratitude, noting that DE provided honest and realistic feedback about their academic abilities which allowed them to focus on areas that needed improvements (VanOra, 2019). With the current changes in the administration of DE courses at the study site, this study highlights students' experiences and perceptions which is one important aspect of the conversation that is often missing.

The study also connects to the proposed topic in providing critical data and a framework within a similar community college setting within the same university system.

Overall, the literature review on student perception and experiences in DE programs reveal that though some students have seen the benefits of DE, some show dissatisfaction and disengagement in developmental education courses which have led to the continued challenge in academic success across institutions as they seek to improve developmental education programs. Nevertheless, educators and policy makers continue to look for opportunities to improve success outcomes of DE students. This has led to reform policies in the form of the corequisite model which has been implemented at many institutions.

The Corequisite Model

According to Adams (2020) the corequisite model allows students with developmental education needs to register for sections of first-year courses where all the students are developmental and the other half are at college level. With that, the developmental students also register for the co-requisite course taught by the same instructor. The proposed study associates the term with that of the university-wide mandate implemented at the study site which refers to *corequisite* as a three credits pathway English composition or pathways math and quantitative reasoning course that allows enrollment of students who are not skills proficient. As such, the proposed study will explore DE students experience in a corequisite math or English course at the study site.

Adams (2020) points out four corequisite models that exist across the United States including: Fast Track or Stretch Model; Studio Model; Tutoring Model; and the

Accelerated Learning Program (ALP). In the Fast Track or Stretch Model, the class consists of only developmental students who register for a six-hour course which has one instructor and which blends the developmental material and the college-level material (Adams, 2020). In the Studio Model developmental students as well as college-level students register for a three-credit college-level course. The developmental students also register for a one-hour studio course with students from other courses. In the Tutoring Model developmental students are enrolled in a credit level course and developmental support is offered through the Writing Center or a computer lab. Adams (2020) points out that one disadvantage with this model is the lack of student visits to the computer lab or Writing Center if the visits are not required.

The fourth model is the Accelerated Learning Program (ALP) model where developmental students register for a three-hour per week credit level course along with an equal or larger number of college ready students. Developmental students also register for a developmental section for an additional three hours per week. Adams notes that the model usually consists of no more than ten students and in some schools the support class meets for less than three hours per week and some support class may be taught by a different instructor. The author recommends a class size of no more than 10 students for faculty to get to know their students and emphasizes that institutions with a larger class size, report challenges. Additionally, the malleability of ALP is one of its greatest strengths as colleges can modify the model to improve its appropriateness to fit their student population (Adams, 2020).

History of the Corequisite Model. One of the earliest corequisite programs in the country is a that of the Community College of Baltimore County (CCBC) (Adams 2020).

The program started out of a longitudinal study aimed to demonstrate the effectiveness of a developmental writing program. Within four years, the study revealed that only 33% of students within the traditional prerequisite developmental writing course passed their first-year composition course (Adams, 2020). A closer look at the data revealed that students were not necessarily failing courses but were unsuccessful because they either gave up after completing the developmental course and did not register for a first-year composition course or dropped out before the semester ended. What was evident is that students gave up before they got to a gate-way course (Adams, 2020).

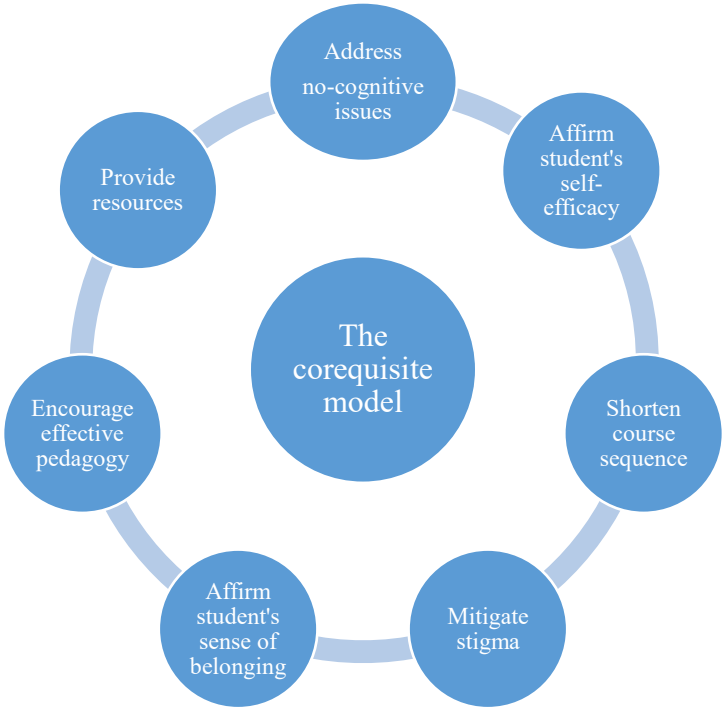
After surveying students to find out possible reasons for dropping courses, CCBC developed the Accelerated Learning Program (ALP) to address the challenges the students described and offered the first section of the program in fall 2007 (Adams, 2020). Since then, CCBC has been supporting the development of ALP at other college campuses by offering financial support, consultation, and faculty development and have led the discussion on why the ALP model has been so successful (Adams, 2020). Additionally, Adams (2020) notes that more than three hundred schools have begun implementing corequisite models modifying them to fit their local context.

Based on research conducted by the Writing Program at (CCBC), the researchers identified seven characteristics that corequisite courses must have in order to improve student success (see Figure 1). These include: (i) the model must effectively address the non-cognitive issues that causes many students to drop out; (ii) the model must confirm to students that they are college material and that they belong in college; (iii) the model must shorten the pipeline through which students must pass in order to pass the gateway course; (iv) the stigma students feel when identified as needing extra support must be

mitigated; (v) the model should strengthen students' attachment to the college, and their sense of belonging; (vi) the model must encourage and support faculty in adopting more effective pedagogy; and (vii) the model must support students as they struggle with challenges in the gateway course (Adams, 2020). It will be beneficial to explore if these characteristics are evident in the corequisite model at the study site.

Figure 1

Characteristics of a Successful Corequisite Model



State mandates. Over the years DE programs have been noticeably unsuccessful at positively impacting the success rate of students. According to Adams (2020), "in school after school, state after state, studies have revealed that nearly two-thirds of students placed into traditional developmental education never succeeded in passing even the gate-way course for which they are being prepared." (p. 19). Research shows that it is not necessarily that students were unsuccessful in gateway courses but that the challenges

students faced in DE resulted in two types of drop out (i) students who never registered for a gateway course and gave up, and (ii) students who failed DE because they dropped out before the semester ended (Adams 2020). Theoretically, this may be a result of the pre-existing life circumstances such as family obligations that Tinto (1999) discusses. These circumstances affect the level of involvement that students put towards their DE programs which according to Astin (1984) eventually affect their academic success.

Consequently, several community colleges including the proposed study site have moved from administering traditional DE courses to the corequisite model, in an effort to improve the success rate of students placed in developmental education. The model is seen as a solution to quickly move students to and through college level courses by providing additional support. This according to many experts saves time, effort, cost and removes the stigma associated with traditional DE (Adams, 2020; Bailey et al., 2013). In some cases, this was triggered by national mandates across several states requiring the implementation of the corequisite course model to improve success for students assigned to developmental education courses. Already, at least seven of these states -California (AB 705), Connecticut (PA1240), Florida (SB 1720), North Carolina, Tennessee, Texas (HB 2223), and West Virginia – have reported improved success rates of students passing developmental as well as first year courses (Adams, 2020).

The Impact of the Corequisite Model on Student Success

The following studies depict the impact of the corequisite model on the academic success of students with DE needs. Overall, several researchers note that a corequisite approach to developmental education will greatly improve students chances of success (Complete College America, 2012; Complete College America, 2021; Bailey et al., 2013;

Jaggar et al., 2015). According to the Community College Research Center (CCRC) 74% of students placed in co-requisite courses at CCBC passed the credit-level English course. Additionally, in 2012, Connecticut mandated PA1240, soon data revealed that they had doubled the rate at which developmental students passed a first-year composition (Adams, 2020). Reports also suggest that in Tennessee the pass rates for students in co-requisite writing courses doubled within one academic year from 30.9% to 61.8% (Adams, 2020). Additionally, according to Complete College America the success rates for developmental students increased from 37% to 68% percent in West Virginia; Colorado from 31% to 64%; in Georgia there was an increase from 16% to 71%; and in Indiana an increase from 37% to 55% (Complete College America, 2012).

According to the growing body of research, some of the institutions studied in the literature with success in the corequisite model include: Community College of Baltimore, Community College of Denver and Chabot College (Jaggar et al., 2015). In one study conducted by Jaggar et al. (2015) the authors point to the current use of the corequisite model at many community colleges which allows students to complete DE course sequence in a shorter time frame. The researchers sought to understand both the positive and negative implications of accelerated developmental education outcomes across a variety of contexts and implementations. The quantitative study includes students enrolled in the initial offering of a "FastStart" Math program at the Community College of Denver, Reading and Writing course at Chabot College, and Accelerated Learning Program (ALP) at the Community College of Baltimore County (Jaggar et al., 2015).

The researchers used course transcript data to identify students, resulting in data gathered from the Community College of Denver between 2006 and 2008 (n=133 program students and n=1,222 comparison students). At Chabot, the researchers collected data between 1999 and fall 2010 on students enrolling in developmental English (n=3853 program students and n=4,757 comparison students). Baltimore County provided data on students who initially enrolled between fall 2007 fall 2011 (n=592 program students and n=5,545 comparison). Students were mainly female and had slightly higher placements than non-accelerated students (Jaggar et al., 2015).

Based on regression and propensity score matching at the three sites, outcome differences between the program and comparison groups indicated that students enrolled in accelerated pathway courses were more likely to complete gate-way courses. For example, students in the "FastStart" program were 11 percentage points more likely to complete college-level Math than their peers in traditional Math sequence, this compared to 17 percentage points at Chabot and 28 percentage point in the ALP program at the Community College of Baltimore County (Jaggar et al., 2015).

The study connects to the proposed topic as it provides information on accelerated developmental education and outlines the strategies used in improving student outcome and retention. Additionally, with students varying experiences in DE courses and the challenges expressed in college-level courses, several studies point to the continued debate on whether corequisite courses improve DE students' outcomes. The proposed study seeks to conduct further research on this for students at an urban community college in NYS.

Additionally, similar studies were conducted to gain faculty perspectives on the effectiveness of the corequisite model. According to Walker (2015) the purpose of the study was to engage community college faculty in systematic reflection of their perceptions of the impact of redesigned accelerated developmental education courses on their pedagogy and student success. The researcher employed a qualitative descriptive approach using two methods (structured questionnaires and interviews) to collect data from faculty in English, Mathematics and Reading courses. Purposeful sampling was used to identify the sample of 26 faculty members, English (n=13), Mathematics (N=7), and Reading (N=6) who met the criterion for teaching traditional developmental courses and redesigned accelerated courses (Walker, 2015).

The researcher distributed email correspondents to program directors and coordinators of the respective disciplines and provided the link to the electronic survey instrument. Each discipline was assigned a specific code. The same criterion was used to recruit English faculty members to interview about backward curriculum design in accelerated courses. Seven English faculty members were identified and invited through email to participate in an individual face to face interview where potential participants were asked to indicate their willingness to be interviewed. The researcher then followed up by establishing appointments for the interviews and employed anonymity and confidentiality of the research participants (Walker, 2015).

In the analysis, the researcher triangulated data across the three disciplines through document analysis as well as data from questionnaires, interviews, classroom assignments and activities. Through thematic content analysis, the researcher identified emergent themes, noting that faculty found teaching accelerated developmental education

course rewarding due to student success and stronger rapport with students. Also, accelerated courses provided faculty insight on non-cognitive issues and affective needs that impact student learning and teaching (Walker, 2015). Walker (2015) also noted that accelerated courses may result in new found faculty perspectives on developmental education reform, effective pedagogical strategies, and student ability.

This study connects to the proposed study in that it provides insight into faculty perspectives on student success in accelerated courses and also highlights the level of support faculty provides to students while teaching these courses. The findings will help to shape the research questions in unearthing the classroom factors that impact academic success and retention of DE students. Moreover, these findings showed that the corequisite model positively impacted the classroom experience between students and faculty, leading to a positive impact on overall academic success. This underscores the notion that student learning and persistence are both influenced my curriculum structures and pedagogy as stipulated by Tinto (1997). As well as the idea of that institutional policy and practice influences the time and amount of energy students devote to their coursework as theorized by Astin (1999).

Conclusion

This chapter provided an explanation of the theories that undergirds the proposed study: student involvement (Astin, 1999) and student integration (Tinto, 1993) and discussed the overall impact of DE on the success of students within community colleges. A major part of student success is proper planning and implementation of policies and programs that promote student involvement coupled with a supportive college

community. According to Tinto (2012) it is important for institutions to provide adequate support to students within their first-year, particularly those underprepared. Based on the literature review, the corequisite model provides such support through not only staff and faculty but also through peer support.

Furthermore, with few qualitative research on how the corequisite model impacts academic success, particularly how students' experiences through involvement and integration in the corequisite model have impacted their success. It is evident that understanding the experiences and perceptions of DE students is an important part of the conversation on DE reform and can further guide institutional-level decision making. Chapter three describes the methodological design and procedures of this study, including the procedures specific to qualitative case study research.

CHAPTER 3: METHODOLOGY

This chapter provides an overview of the methodology, including the research questions, setting, participants, data collection procedures, trustworthiness of the design, research ethics, and data analysis approach. The chapter ends with a discussion on the role of the researcher and conclusions. With the continued debate surrounding the effectiveness of developmental education (DE) programs and the current changes in DE policy across several institutions including the study site, the proposed study employed a qualitative approach to explore how DE students experience the corequisite model at a community college in New York State (NYS). DE has been a long-standing challenge for community colleges, where many DE students have experienced challenges in achieving academic success. Therefore, understanding how the corequisite model impacts the academic success of these students is crucial, not only for the success of DE, but also overall retention and graduation efforts.

Research Questions

To explore DE students' experience of the corequisite model at the study site, this study aimed to answer one overarching question:

1. How does participation in the corequisite model promote the academic success of students placed in developmental education in a community college in New York State?

The following sub-questions also guided the study:

1. What are the factors that facilitate the academic success of students taking developmental education corequisite courses?

2. What are the factors that impede the academic success of students taking developmental education corequisite courses?

Research Design

The research questions above were addressed using a qualitative case study methodology. These qualitative research questions allowed the researcher to gain insight into the issues surrounding developmental education and the benefits and challenges of the new model. The research questions were also beneficial as the researcher was interested in the stories of others (Seidman, 1991). While many quantitative studies have shown evidence of the impact of corequisite courses on the success of DE student, a qualitative case study approach as suggested by Creswell and Poth (2018) provided a deep and rich insight of the effectiveness of the model in promoting academic success, specifically as it relates to theoretical concepts of student involvement and student integration. This qualitative or naturalistic approach to research, as described by Bogdan and Biklen (2006) also allowed for rigor through extensive data collection in a real-word context of DE students, specifically creating a description from the students own frame of reference (Bogdan & Biklen, 2006).

Additionally, qualitative research is conducted because a problem or issue needs to be explored or a complex detailed understanding of an issue is desired (Creswell & Poth (2018), it is that understanding that this study desired to fulfill. Furthermore, in order for community college administrators to successfully close the gap in academic success of DE students, an understanding of their experiences in programs designed to accomplish this, can provide a more detailed information of the model as well as identify avenues for improvements. Once this understanding is desired, Creswell and Poth (2018) notes that

the researcher then goes through several phases in the qualitative research process, which include: acknowledging broad assumptions; identifying the interpretive lens to be used; drafting open-ended research questions; analyzing data, integrating inductive and deductive strategies; and collecting a variety of source data (Creswell & Poth, 2018).

From this perspective, the single case study method provided insights from students on their experiences in a corequisite course and how the course influenced their academic success. According to Yin (2018) "a case study is an empirical method that investigates a contemporary phenomenon ("the case") in-depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident" (p.15). Use of the case study method was germane to this study in providing an in-depth understanding of the corequisite model. Hence, the case study method provided contextual comprehensive knowledge of students' experiences of the corequisite model as a new approach on developmental education reform at the study site.

While details on the impact of the corequisite model on DE students can be ascertained from predetermined information from the literature, it is best achieved by talking directly with students, going into their learning environments and allowing them to tell their stories unencumbered by what we expect to find or what we have read in the literature (Creswell & Poth 2018). Accordingly, qualitative research uses this method to learn what the important questions are (Bogdan & Biklen, 2006). Therefore, this study utilized detailed, in-dept data collection involving multiple sources of information (Creswell & Poth, 2018) including individual interviews, focus group and document review. Use of these three data sources allowed for triangulation and a fuller understanding on different aspects of the issue being studied (Bogdan & Biklen, 2006;

Creswell & Poth, 2018; Lincoln & Guba, 1985) reducing the risk that the conclusion reflects the biases of a specific method (Maxwell, 2013).

Methods and Procedures

Setting

The study was conducted at a non-residential, urban community college located in the South Bronx neighborhood of New York. The study site was selected based on the demographic characteristics, socioeconomic, and enrollment status of its students, which show similarity to students studied by Astin (1999) and Tinto (1993) discussed in chapter 2. As shown in Table 1, the college enrolls approximately 7,000 students per semester and close to 60% of the student body identifies as Hispanic. The majority of its' students (64.3%) come from the South Bronx neighborhood, which is seen as the poorest congressional district in NYS.

In addition, the college offers 28 associate degree programs and 2 certificate programs for its students. Under the traditional DE requirements, entering students skill levels in reading, writing and math were determined by a placement test. Based on their scores, students were placed in developmental reading, writing, or math courses. In some cases, a student may be placed in two or all three areas of developmental courses. In spring 2020, the study site fully transformed its developmental education policy through the launch of a new proficiency index. Institutional records suggest that the changes are an effort to replace outdated DE practices and move towards a new corequisite model. With this new policy, students who meet the proficiency index are assigned a corequisite course in English and math.

Table 1

Fall 2018 Student Profile - Study Site

Profile	Headcount	Percentage (%)
Total Enrollment	7,340	
Gender		
Female	4,923	67.1
Male	2,417	32.9
Ethnic/Racial Background		
White	95	1.3
Black	1,557	21.2
Hispanic	4,119	57.2
Asian/Pacific Islander	161	2.2
American Indian/Alaska Native	33	0.4
Other/Unknown	1,295	17.6
Residency Status		
Manhattan	1,091	14.9
Bronx	4,716	64.3
Brooklyn	234	3.2
Queens	200	2.7
Staten Island	18	0.2
Westchester	100	1.4
Foreign	328	4.5
Unknown	653	8.9

Students who do not meet the proficiency index are highly encouraged to participate in a college bridge program; however, the choice to participate is left up to the students. Consequently, students may elect not to enroll in a separate bridge program and instead enroll in the DE courses at the college or enroll in college level courses not immediately needing DE. Interestingly, the literature suggests that when the enrollment choice is placed in the hands of students, students often elect not to take DE courses even when advised to do so (Park et al., 2016). At the study site, DE students and non-DE students have the same opportunities in selecting their program of study, the difference is

that DE students cannot enroll in various gateway courses such as English and math, without also fulfilling their DE requirements.

Like many community colleges, the study site continues to experience the challenge of a large incoming population of students with DE class needs in reading, writing and mathematics. Current data shows that there has been little improvement in entering students needing developmental courses. In addition, fall 2018 data on freshman entry skills test (see Table 2) show a percent passing rate of 73.8% in reading, 63.7% in writing and 30.8% in math. Only 20.3% of students passed all three skills tests, compared to 22.1% in 2015. The continued trend compounds the difficulty in improving the college's retention rates and the college now faces the challenge of working with and assisting these students in passing their corequisite course and progressing to the following semester.

Table 2

Freshmen Percent Pass Rate on Entry Skills Test - Study Site

DE Course	Fall 2005	Fall 2010	Fall 2015	Fall 2018
Reading	60.1	56.5	76.0	73.8
Writing	30.7	43.0	68.1	63.7
Math	29.5	21.5	30.8	30.8
Passed all	12.9	12.5	22.1	20.3

Participants

The participants for this study included a purposeful sample of eight students and two faculty members at an urban community college in New York. The population of students were purposefully sampled from both English and math corequisite classes during

the Fall 2021 semester. For courses with two sections, only students who enrolled in the DE non-credit section of the corequisite course qualified to participate in the study. Additionally, to ensure a heterogenous group of participants, the researcher employed measures to recruit a diverse sample of students to include both male and female students, across various majors, ethnic/racial groups, and full and part-time enrollment status. The researcher also recruited a diverse sample of participants from faculty based on gender, courses taught, and the number of years taught at the college. As such, participants were asked to complete and submit a demographic information sheet (Appendices C and E) along with their constant letter (Appendices B and D). This purposeful sample proved vital in providing an understanding of the research problem and central issue in the study (Creswell and Poth, 2018).

The current challenges with academic success of DE students at the study site made the study site a prime setting to conduct this research and the population sample accurately reflects the research topic. Additionally, DE students display characteristics that may act as barriers towards their academic success as discussed by Astin (1999) and Tinto (1993). The college's 2016 data on pre-enrolled students suggests that approximately 80% of students were not academically ready for college-level study upon entry and nearly 90% of students receive some form of federal or state aid. This underscores the cost of DE to students as these funds are directed towards DE courses which do not contribute academic credits to their program of study.

Additionally, institutional records indicated that majority of the faculty at the study site are employed part-time, which is one of the characteristics Astin (1999) highlights of community colleges. As active participants in the daily experiences of the corequisite

course, faculty perspectives were substantial to the research purpose. To gather faculty perspectives on how the corequisite model influenced academic success at the study site, two faculty participants were selected based on their years of experience teaching a corequisite courses.

Data Collection Procedures

A review of the literature revealed that the corequisite model is successful at improving DE student' success (Complete College America, 2012; Jaggar et al., 2015; Walker, 2015). In addition to building an analysis from the cases on corequisite models through the literature review, the researcher selected one community college as a study site. The college is a part of a public university system in NYS that is undergoing comprehensive developmental education reform.

To ensure validity, this case study utilized several forms of qualitative data gathering techniques including: (i) individual interviews with eight students and two faculty; (ii) a focus group consisting of the seven students; and (iii) document review. These procedures facilitated triangulation of the findings across multiple data sources and provided an in-depth understanding of the case (Bogdan & Biklen, 2006; Creswell & Poth, 2018; Maxell, 2013; Yin, 2018).

Pre-Study Questionnaire. A pre-study questionnaire was administered to gain demographic information on students and faculty. This was administered through online Google Forms and provided information to the researcher on each participant that allowed for purposeful sampling.

Interviews. Significant research points to the need for students to be a part of the conversation in developmental education reform (Parks et al, 2016; Schnee, 2014; Taines,

2012). In addition, faculty development is seen as a top priority to support the transition to a corequisite model (Adams, 2020) and researchers such as Walker (2015) describe faculty as a valuable source of knowledge on the effectiveness of the new model on their pedagogy and student success. As such, the researcher conducted semi-structured interviews with eight students and two faculty within the corequisite program at the study site. One faculty was chosen from the math and English departments to gather a perspective across both subject areas. The interviews were approximately 45 minutes to an hour long and an interview protocol was utilized (see Appendix F and G). Developing a case study protocol was beneficial to the researcher due to its' effectiveness in increasing reliability of case studies and ensuring that the data collection proceeded smoothly (Yin, 2018).

The interviews were conducted during the spring 2022 semester and arrangements were made to ensure anonymity and confidentiality of students and faculty. All interviews were conducted using Zoom platform and were recorded and transcribed. The researcher received permission from interviewees to be recorded through a signed consent letter (see Appendix B and D). Observer notes were made, including details of body language and actions shared during the interviews. This provided rigor to the study and allowed for transferability (Bogdan & Biken, 2006; Creswell & Poth, 2018).

Student Interview Protocol. The student interviews were intended to uncover students' level of involvement and integration in their corequisite course and how the course facilitated or impeded their academic success. The interview protocol (Appendix D) consisted of eleven questions which were informed by the literature reviewed on student involvement and student integration, as well as information from an informal

conversation with a coordinator of the corequisite workshop. Question 1 of the student interview protocol was designed to provide information regarding their current studies at the college. This allowed the researcher to review and confirm the initial demographic information submitted and probe where necessary. The overarching question on students participation and experience in the corequisite course collected information from interview questions 2, 3, 4, and 5. Interview questions 7 and 10 answered sub-question A, on the factors that facilitate the academic success of students, while interview questions 6, 8, and 9 answered sub-question B, on the factors that students perceive impede their academic success. Question 11 allowed participants to share additional information that was not asked from the interview protocol. Lastly, each interview question related to various concepts of the theoretical framework of student integration and student involvement as well as various focus areas pertaining to the literature review (see Appendix J).

Faculty Interview Protocol. The interviews with faculty were intended to explore their perceptions about the corequisite model, their roles in supporting students within corequisite courses and what they believe are the factors that support student's success or served as barriers to success.

The interview protocol (Appendix G) consists of eleven questions which are informed by the literature reviewed, as well as information from an informal conversation with a coordinator of the corequisite workshop. The overarching question on students participation and experience in the corequisite course will gather information from interview questions 1, 2, 3, 8, and 10. Interview questions 4, 5, 7 and 9 will answer sub-question A, on the factors that facilitate the academic success of students, while interview

question 6 will answer sub-question B, on the factors that impede DE students' academic success. Question 11 will allow faculty participants to share additional information that was not asked from the protocol. Lastly, each interview question related to various concepts of the theoretical framework of student integration and student involvement as well as various focus areas pertaining to the literature review (see Appendix K).

Focus Group. At the completion of the student and faculty interviews a focus group with the eight students was conducted. Due to the heterogeneity of the participants the researcher included all eight interview participants in the focus group. This is advantageous for focus groups where the research topic is speculative or exploratory. This also addresses any challenges within the individual interviews due to variation of cooperativeness, perception, and articulation of each participant (Vaughn et al., 1996). The purpose of the focused group was to further explore thoughts from the individual student interviews and to elicit a range of feelings, ideas, and opinions that would emerge in a group setting (Bloomberg & Volpe, 2019). Researchers suggest that focus groups consist of elements of both participant observations and individual interviews (Bloomberg & Volpe, 2019) and allows for a complete and revealing understanding of unanticipated issues that may arise in the discussion (Vaughn et al., 1996).

The discussion of the topic with the eight students from the individual interview was beneficial in encouraging interaction between participants which provided rich and deep data and also allowed the researcher to use probes based on themes that emerged from the individual interviews. Focus groups stimulate discussion from multiple perspectives from the group participants as well as students are motivated by others to share or come to realize their own views through the group conversation (Bogdan &

Biklen, 2006). This may be described as a "loosening effect," where the students may be more willing to share and elaborate in a group setting as they feel their experiences and opinions are more valued (Vaughn et al., 2019). Furthermore, a focus group setting also helps to relax the power dynamics between the researcher and the participant due to the support of peers (Vaughn et al., 2019; Creswell and Poth, 2018).

The researcher received permission for students to be recorded within the focus group through a sign a consent letter (See Appendix B) accompanied by a biographic data sheet (Appendix C). A focus group interview guide (Appendix H) was used to facilitate the group discussion and focused on questions relating to supports provided within the corequisite course as well as students' perceived value of the corequisite curriculum. These focus areas align with theoretical concepts of Astin and Tinto as well as seven best practices suggested by Adams (2020) for successful corequisite models. Finally, observer notes were made including details of body language and actions shared in the group setting. This provided rigor to the study and allowed for transferability (Creswell & Poth, 2018).

Document review. Prior to the interviews and focus group sessions, a review of the college mission, demographics and institutional data on student success was conducted. In addition, the researcher conducted a review of relevant documents including course description and course syllabi, as well as a guidance document on the implementation of the corequisite model. Yin (2018) suggests that document information is likely relevant to every case study topic and should be the object of explicit data collection plans. As document review is relevant to this case study research, the researcher conducted a document review of a memorandum providing guidance for

implementing the corequisite model. This provided background information and context to study topic and an understanding of various best practices suggested in designing the model. This was examined in light of the seven characteristics for successful corequisite programming, described by Adams (2020). Additionally, a review of the course description provided information on the current structure of the model and learning outcomes, which was analyzed further based on information provided by the interviews (see Appendix I).

Use of the above sources of data collection provided convergent evidence which helped to strengthen the trustworthiness of the proposed case study (Yin (2018).

Research Ethics

In preparation to conduct this study there were a number of protocols and gatekeepers who the researcher sought permission from regarding the Institutional Review Board (IRB) protocols. The researcher sought to obtain approval to conduct this study from St. John's University IRB and the Human Research Protection Program (HRPP) Coordinator at the study site. After approval was received from St. John's Institutional Review Board (IRB), information was sent to the Human Research Protection Program (HRPP) at the study site. Once this was accepted and approval received, a list of students who completed a corequisite course in FA 21 was requested from the college's data specialist. The researcher also obtained official email addresses from the institution's faculty webpage and potential student and faculty participants were contacted via e-mail. Two letters of consent, one for students and one for faculty (see Appendix B and D), were attached to the email, requesting their participation and informing them that their participation is voluntary. Through this, the participants were

also informed of the purpose of the study, the description and relevance of the study, the estimated time required and the potential risks of the procedures, this researchers intent to provide anonymity and the opportunity to withdraw their participation at any time.

Data Storage

All digital notes and recordings collected were carefully labeled and stored in folders on a secured personal computer, while printed materials were secured in a file cabinet at a residential location which only the researcher has access to. Additionally, data collected will be discarded three years after the study is completed.

Trustworthiness of the Design

Based on the nature of qualitative research, the naturalistic researcher encounters many inevitable challenges (Lincoln & Guba, 1985). As such, this study is open to possible threats including research bias as well as inaccurate analysis of responses, either based on poor interpretation on the part of the researcher or inaccurate response from respondents. To that end, the study is designed to accomplish accuracy in data collection, analysis, and conclusion (Creswell & Poth, 2018). Creswell and Poth (2018) suggest that the qualitative researcher engage in at least two validation strategies, the study employed four strategies taking into consideration not only the lens of the researcher but also that of the participants and the readers (Creswell & Poth, 2018). The four strategies include (i) corroboration of evidence through triangulation, (ii) member checking, (iii) generating rich, thick descriptions, and (iv) peer review.

These strategies will be discussed further considering the terms credibility, transferability, confirmability, and dependability, which according to Lincoln and Guba (1985) are more appropriate criteria to operationalize trustworthiness in qualitative

research. The following is a discussion on how each criterion will be addressed in the proposed study.

Credibility. To establish credibility, the researcher employed triangulation of different data sources including individual interviews, focus groups, and document review. According to Creswell and Poth (2018) triangulation would help to account for accuracy in data collection as the researcher would be able to check for inconsistencies across the different sources. It is also good to have a second party that is not fully invested in the research, to review the findings (Lincoln & Guba, 1985). This can occur through informal peer debriefing where the researcher's biases are probed and the debriefer helps to keep the researcher honest (Lincoln & Guba, 1985). Lastly, Lincoln and Guba notes that the credibility of findings can be enhanced through the approval of those who construct the realities being studied. As such, the researcher also employed member checking which according to the Lincoln and Guba (1985) is the most crucial technique for establishing credibility. Therefore, during data collection the researcher ensured that responses that are ambiguous are clarified with respondents.

Transferability. To account for transferability, the researcher used a population sample that accurately represents the research topic as well as provide thick description. This according to Lincoln and Guba (1985) provides opportunities for the reader to determine whether the findings can be transferred. For this to occur, Creswell and Poth suggest that the researcher revisits the raw data soon after its collection to add further descriptions that might be helpful during analysis. In addition to thick description, the researcher ensured that there was consistency in conducting the interviews (Creswell & Poth, 2018) and ensure that different perspectives were represented by collecting enough

information from an appropriate sample across the math and English corequisite courses. Through this use of purposeful sampling, the proposed study provides the widest possible range of information (Lincoln & Guba, 1985).

Confirmability. To ensure that findings are grounded in the data, the researcher employed triangulation of data sources including, student and faculty interviews, focus groups, and document review. The researcher also kept proper records of data collected. Creswell and Poth (2018) points to the importance of adhering to the research protocols. As such, in conducting interviews, the researcher followed the interview protocols and ensured that the questions were asked in a way that was clear to respondents and that responses were interpreted correctly and not based on the researchers' own understanding. In doing this, the researcher will used open-ended questions to ensure that researchers' thoughts were not represented within the questions in any way that would direct particular answers (Siedman, 1991). The use of audio recording was also used for the interviews, then transcribed. This ensured that the information was being recorded accurately, which benefitted the analysis and findings (Bogdan & Biklen, 2006; Lincoln & Guba, 1985)

Dependability. To address dependability, the researcher ensured that the process of data collection and storing fell within acceptable ethical limits of St. John's University Institutional Review Board (IRB) and that of the study site. In addition, the researcher ensured that all measures of ethical considerations were provided to the study participants, including ensuring that they understood what the study is about and consent to participation and recordings. In that, the participants were informed about the research purpose and procedures and how the results of the research will be utilized and stored

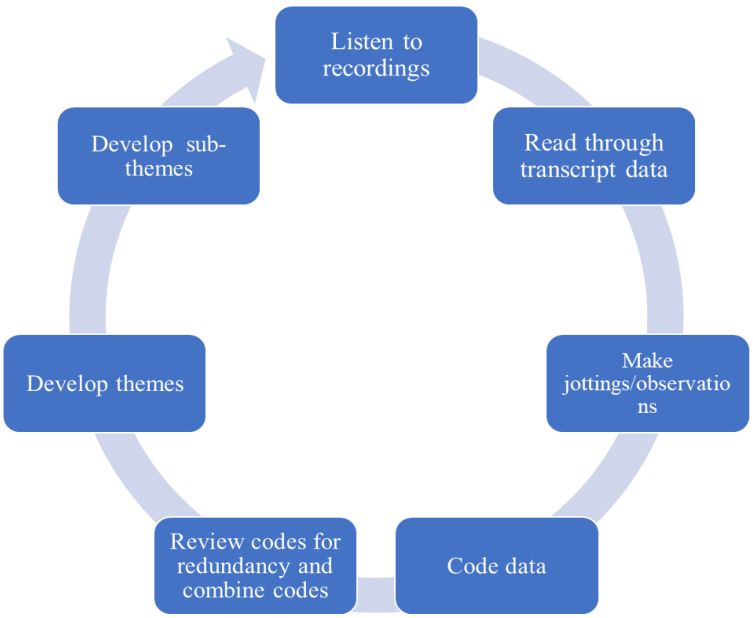
(Appendix B and D). Lastly, Creswell and Poth (2018) points to the need for the researcher to be aware of their role in the research, as such, this researcher remained aware of how they may be perceived by participants and found it beneficial to build a connection with the participants so that they were comfortable and willing to share adequate information to help move the research along.

Data Analysis Approach

The process of data analysis consists of interconnected steps which involves organizing the data, conducting a preliminary read-through of the database, coding and organizing themes, representing the data, and forming an interpretation of them (Creswell & Poth, 2018). Figure 2 depicts the process that guided my coding steps and the reduction of data.

Figure 2

Inductive Analysis of the Coding Process



Based on the exploratory nature of the study, the researcher utilized an inductive method of analysis to analyze data collected through individual interviews, focus group and document review. This approach complemented the research questions by allowing themes to emerge from the participant's voices which proved central to developing meaningful understanding of the case (O'Leary, 2014; Yin, 2018). Utilizing concepts from various researchers (Creswell & Poth 2018; Miles et al., 2014; Saldana, 2016; Yin, 2018).

Organize the Data. With the absence of a fixed method of analyzing the data, Yin (2018) suggests that the analysis depends on the researchers own analytic rational. As such, the researcher's analytic strategy began with the researcher playing with the data to search for patterns, insights, or concepts that seemed promising. (Yin, 2018). To do this, the researcher chose to begin data analysis concurrent with data collection which helped to energize the process of fieldwork (Miles et al., 2014). Another plan was to transcribe the data within 24 hours after data collection. The intent of this was to begin the coding process while the interview data was fresh in mind.

Preliminary Read Through. Prior to transcription the researcher listened to the recording twice which helped to develop a full picture of the conversation that occurred throughout the interview process. Next, the researcher engaged in careful reading of all the data collected and made general impression notes in order to get a feel of the data (O'Leary, 2014), as well as highlighted and underlined significant quotes from the participants which stood out. At this point, the researcher began to document impressions gathered from the data which led to opportunities for analytic memo writing which later played an integral role in tying pieces of information in the analyses phase of the

research. Additionally, the technique of pre-coding provided key pieces of evidence and illustrative examples used in the analysis (Saldana, 2016).

Code and Organize Themes. The third phase began the coding process. As such, transcriptions from the audio-recordings of the interviews, focus group and documents were reviewed for codes through a manual process. The researcher utilized an excel spreadsheet to record and organize each code, the manual process was beneficial as it allowed the researcher to be immersed in the data and gain a broader perspective of the experiences of participants. A code is a word or short phrase that represents or captures a datum's primary content and essence (Saldana, 2016). Coding, as a method of discovery, allowed the researcher to condense data retrieved from the individual and focus group interviews, as well as document analysis which allowed the researcher to retrieve information that was most meaningful, and could be put together to provide an analysis of the case (Miles et al., 2014).

The researcher employed three rounds of coding. As a first cycle coding method, In Vivo coding was chosen in an effort to honor the voices of the participants. With In Vivo coding, the researcher identified repetitive sentiments throughout the transcripts, which provided an understanding of what was important to participants (Saldana, 2016). See Appendix L which depicts first cycle in vivo split codes for question number two of student interview protocol. To further organize the data, the In Vivo codes were then placed into clusters that suggests categories of belonging as recommended by Saldana (2016), see Appendix M.

Additionally, descriptive codes were also used to provide a detailed inventory of the pre-study questionnaires and documents for review. Descriptive coding utilizes short

words or phrases that summarize the topic of the data. Document review was conducted following eight steps suggested by O'Leary (2014): (i) gather relevant texts; (ii) develop an organization and management scheme; (iii) make copies of the originals for annotation; (iv) asses authenticity of documents; (v) explore document's agenda, biases; (vi) explore background information; (vii) ask questions about document; and (viii) explore content. O'Leary (2014) suggests an interview technique which was used to uncover information from two public record type documents, one, a guidance document on the implementation of the corequisite model identified through a web search and course syllabi provided by each faculty participant. The document review was carried out through multiple close readings which allowed the researcher to identify particular words, phrases and concepts and descriptively documented the frequency of occurrence within each document (O'Leary. 2014)

This was followed by second and third cycle coding through use of pattern codes, where the first cycle In Vivo and descriptive codes were grouped into meaningful themes (Miles et al., 2014). This tied together different pieces of information from the triangulated data. Use of pattern coding is one of the most desirable techniques for case study analysis (Yin, 2018), which proved valuable as it allowed the researcher to connect the data to the research questions. Furthermore, Saldana (2016) proper planning in making coding decisions, to focus the coding decision, the researcher developed a table (see Appendix O) showing the research questions, interview questions, purpose of the study, research concerns and reflective questions. In reading through each transcript, the researcher periodically reviewed Appendix O to examine each transcript and develop codes.

To facilitate reflection and analysis Miles et al. (2014) suggest the use of pattern code display. Additionally, though data analysis was concurrent with data collection, the researcher was careful not to hastily confirm a pattern, but instead, loosely assign meanings to each chunk of information, to allow for numerous cross-checking of each pattern and reconfiguration as new data came (Miles et al., 2014). This preliminary organization allows a novice researcher to clean up or recode on an ongoing basis to avoid code proliferation. Therefore, the researcher aimed for heuristic fluidity to prioritize insightful analytic discovery (Saldana, 2016). This process allowed the researcher to obtain relevant data to provide a rich and detailed description of student experiences in English and math corequisite courses and the factors that facilitated or impeded their academic success. With multiple perspectives used as evidence to the case study, saturation was achieved once the researcher realized that no new information emerged. A picture of the manual coding process can be seen in Appendix N.

Interpret the Data. The final step of data analysis was to form an interpretation of the data. Through this, the researcher will describe the salient themes that emerged. The pattern codes developed in research question 1 were broken into two themes. The pattern codes from sub research question A revealed four themes and two themes emerged from sub research question B. These themes are described in detail in chapter 4.

Researcher Role

There are two key layers that are relevant to the researcher's interest in exploring the experiences of DE students in corequisite courses. One, the researcher is a Student Success Coach at the study site and advises students on an individual basis from their first year to graduation. As such, the researcher has worked with several DE students to

provide support and resources as they progress through their DE course requirements. Two, the researchers personal experiences in navigating the unfamiliar college setting, particularly as a first-generation student. The researcher uses those personal experiences to inform the student advising process. Importantly, the researcher acknowledges that though these two layers of interest may have led to the research topic, the research conclusions should never be a part of the perspectives of the researcher. The role of the researcher throughout the entire qualitative research process is to focus on learning the meaning that participants hold about the problem (Creswell and Poth, 2018). Consequently, the researcher remained mindful of (i) her role as both a researcher and a staff member during interpreting and analyzing the data and (ii) the need to ensure that the informed knowledge as the researcher does not allow for preconceptions.

As such, to ensure that pre-existing assumptions did not influence this research process, the researcher triangulated data through the use of semi-structured interviews, focus group and document review. Additionally, research protocols were consistently utilized across all data gathering methods and the researcher ensured that participants understood that participation is voluntary and their responses will be kept confidential through the use of pseudonyms. Fundamentally, the researcher ensured that the data analysis was aligned with the research problem, the purpose of the study, the research questions, and the methodology. Finally, the researcher aimed to properly collect and manage participants data by following guidelines according to the institution's IRB.

Conclusion

Findings across the literature show continued challenges in academic outcomes for DE students resulting in overall low academic success. In addition, myriad of research

have documented the exorbitant cost of developmental education to students as well as the length of time it takes to complete DE sequences. These challenges often result in students using various exit points before they either complete a DE course or enrolling in a gateway course (Adams, 2020). With the fast pace in implementation of the corequisite model across community colleges, it is imperative that policy makers focus on the results of not only quantitative studies but also utilize results from qualitative studies, especially those that share student perceptions and experiences.

Whether it is taking time to understand the characteristics of DE students, allowing them to have a voice in the conversation, or implementing programs such as the corequisite model, administrators need to work on these in regards to their specific institutions and the student populations they serve. As Cole et al. (2018) suggest, student success efforts are not a one-size fits all approach, therefore institutions should conduct research and implement programs that are specific to their institution and analyze and use data that is available to help make data-driven decisions. Findings from the proposed study can provide such data.

Moreover, several researchers point to a lack of balance in the decision process through seeking students' perspectives (Fike & Fike, 2008; Schnee, 2014; VanOra, 2019). As such, the proposed study will also fill a research gap by illuminating the voices of students and provide additional information on an urban public college in NYS. In the end, the information derived from this study can be used to facilitate positive changes in developmental education in the corequisite model and community colleges. Lastly, with the current changes in DE policies at the study site, this study sought to purposefully interview students enrolled in corequisite courses. As participants in this new corequisite

model, their academic success or lack thereof will be viewed by all as an indicator for how the college and its university system will continue DE policy changes. Chapter four discusses the findings of the research as experienced by students and faculty.

CHAPTER 4: FINDINGS

Introduction

This study utilized a qualitative case study approach to examine the experience of students enrolled in corequisite courses. With the rapid implementation of the corequisite model across many community colleges in the United States, and the reported success rates of developmental education (DE) students taking corequisite courses, the intent of this study was to gain a deeper understanding of how DE students enrolled in corequisite courses are succeeding academically. As such, this study sought to specifically explore the experiences of students who have successfully completed a math or English corequisite course and to find out what factors facilitated or impeded their academic success. The data collection and analysis were guided by one overarching research question and two sub-questions:

1. How does participation in the corequisite model promote the academic success of students placed in developmental education in a community college in New York State (NYS)?
    A. What are the factors that facilitate the academic success of students taking developmental education corequisite courses?
    B. What are the factors that impede the academic success of students taking developmental education corequisite courses?

To answer these questions, a purposeful sample was recruited from an urban community college in New York State. A total of eight students participated in an individual interview and seven of the eight students returned for a focus group interview. Additionally, one math and one English faculty member who teach corequisite courses

participated in an individual interview. Also, document review was conducted on course syllabus from both faculty participants, as well as a Central Office guidance document on the implementation of the corequisite model across the university. This completed triangulation of the data which allowed the researcher to gain a comprehensive understanding of the phenomenon being experienced (Creswell and Poth, 2018; Yin, 2018).

Due to COVID-19 pandemic protocols, all interviews took place online using the Zoom platform. Information from the individual interviews and focus groups were first transcribed. Next, the transcriptions along with the course syllabus and guidance document were manually coded then analyzed. Descriptive and In Vivo coding were appropriate for the first round of coding. The data was further broken down with the use of pattern codes to develop themes which act as the findings of this study. The participants were assigned pseudonyms to protect their identity and participants own language are used throughout the analysis discussion to maintain authenticity. This chapter reports the study's findings by highlighting the themes that emerged from data collection and analysis under each research question. The chapter will conclude with an overview of the findings.

Pre-Study Questionnaire Data

For this study, participants completed a pre-study questionnaire (see Appendix C and E) electronically through Google forms. The pre-study questionnaire consisted of questions which allowed students to share information on their gender, ethnicity, enrollment status, employment status, corequisite courses taken in fall 2021 (students) and corequisite courses taught (faculty). The purpose of these questions was to gain

insight on the background of the participants in preparation for their interview. The questions were analyzed using descriptive coding.

Pre-Study Questionnaire Responses

Prior to developing themes, it was important to gain insight on the background of the participants in the study. A total of ten individual interviews were conducted and demographic surveys were collected. Four of the eight student participants were male and six identified as black while two identified as Hispanic (see Table 3).

Table 3

Pre- Study Questionnaire Participant Data

Pseudonym	Gender	Ethnicity	Enrolled	Employment	Corequisite	Years
Students						
Walter	Male	Black	Full-time	Part-time	English	
Violet	Female	Black	Full-time	Unemployed	Math	
Blossom	Female	Black	Full-time	Full-time	English	
David	Male	Black	Full-time	Full-time	English	
Juan	Male	Hispanic	Full-time	Part-time	English	
Dahalia	Female	Hispanic	Full-time	Full-time	Math	
Lily	Female	Black	Full-time	Unemployed	English	
Richard	Male	Black	Full-time	Part-time	English and Math	
Faculty						
Prof. Daisy	Female	White			English	13
Prof. Flowers	Male	Hispanic			Math	21

All eight participants were enrolled full time while three of them worked full-time, three-part time and two were unemployed. Five students completed an English corequisite course and two completed math, while one student completed both math and English

corequisite courses. There was one male faculty participant who identified as Hispanic who teaches math and has taught at the college for twenty-one years. The female faculty participant identified as white, teaches English and has taught at the college for thirteen years.

Findings

The student participants were open and reflective and provided a wealth of information on how they achieved academic success through their corequisite course and how that experience influenced them to continue to another semester at the college. The faculty provided a wealth of information on their experience in teaching DE students at the college over the years, and their perceptions of the corequisite model in supporting students. Eight themes emerged from the data regarding students experiences in corequisite courses: (i) participants positive course experience; (ii) corequisite impact on learning; (iii) faculty approach; (iv) students' time and effort; (v) students' motivation (vi) "a good support line" (vii) challenging experiences and (viii) suggestions for improvement. Table 4 highlights these interpretive themes, their sub-themes, the data source that contributed to the theme and the method of trustworthiness.

The first theme, participants' positive course experience, describes the expressed emotions of both students and faculty as they described their experience and perceptions of the corequisite course throughout the interviews. Secondly, corequisite course impact on learning explains how the corequisite course provided a good foundation for students, which led to their academic success and enrollment in the subsequent semester, while the third theme, faculty approach reflects how each faculty participant approached teaching DE students.

Table 4

Interpretive Themes

Research Question	Theme	Subthemes	Data Source	Trustworthiness
1. How does participation in the corequisite model promote the academic success of students placed in developmental education in a community college in NYS?	Participants Positive Course Experience	Student Experience	Individual Interviews	Thick Description
		Faculty Experience	Focus group	Member Checking
	Corequisite Course Impact on Learning	The "Domino Effect"	Individual Interviews	Triangulation
			Focus Group	
			Document Review	
A. What are the factors that facilitate the academic success of students taking developmental education corequisite courses?	Faculty Approach	Student Centered Learning	Individual Interviews	Triangulation
			Focus Group	
			Document Review	
	Students' Time and Effort	Qualitative Involvement	Student Interview	Thick Description
		Quantitative Involvement	Focus Group	Member Checking
	Students' Motivation	Academic Goals	Student Interview	Thick Description
			Focus Group	
	"A Good Support Line"	Faculty Support	Individual Interviews	Triangulation

		Support from Tutors	Focus Group	Thick Description
		Peer Learning	Document Review	
		Course Resources		
B. What are the factors that impede the academic success of students taking developmental education corequisite courses?	Challenging Experiences	Student Challenges	Individual Interviews	Member Checking
		Faculty Challenges	Focus Group	
	Suggestions for Improvement	Student Suggestions	Individual Interviews	Member Checking
		Faculty Suggestions	Focus Group	Thick Description

The fourth theme, students' time and effort, provides insight into the degree of involvement students applied to their learning. The fifth theme, students' motivation, reflects the goals students shared in their individual and focus group interviews. The sixth theme, "a good support line", discusses the campus wide supports that student utilized. Lastly, theme seven discusses the challenges student experienced in the corequisite course while theme eight provides suggestions for improvements. The following section will provide a report of these themes identified in relation to each research question.

Research Question 1

How does participation in the corequisite model promote the academic success of students placed in developmental education in a community college in New York State

(NYS)? Research question one aimed to understand how DE student's participation in corequisite courses lead to academic success. Two prominent themes emerged from the data: (a) participants positive course experience and (b) corequisite impact on learning. The themes were substantiated by data from the interviews, focus group and document review.

Theme 1: Participants Positive Course Experience

The first main theme that emerged from the data included the participants expressing a positive experience of the corequisite course. Participants were open and reflective in both their individual and focus group interviews which provided opportunities to gather thick descriptions of their experience in the corequisite course. The individual interviews and focus group interviews highlighted the similarities in student experience and faculty experience.

Sub-theme 1: Student Experience. Question two of the student protocol asked students to describe their experience in their developmental education requirement course. Blossom recalled that she had a "good experience" overall, she learned new things and compared the college level portion of her English course as "denser" to the supplemental portion. For Violet, though her math class was online and she had some challenges with Venn Diagrams, she expressed that "the class was "helpful" as it allowed her to experience new things such as doing presentations and teaching other students. Similar to Violet, Dahalia's math course was on zoom and was "pretty interesting". The course was only on Saturdays and Sundays and she spoke gratefully about the supplemental portion of the course, noting that it was "very informative" where the

“second teacher” (most likely the tutor) provided feedback and helped the class to study and prepare for tests.

One student, David, was overwhelmingly positive about his English course experience despite some challenges he faced. David described his experience in the course as "fun" and attributes that to the fact that he had an understanding teacher. Throughout the individual and focus group interviews, David spoke about his challenges with catching up with the coursework after being removed from the course for nearly two months due to vaccination requirements. Nevertheless, through his love for English, he completed the course with a C grade and attributes this to his professor who saw his potential and was supportive. David shared the following regarding his professor, “I think that teacher made me not give up and made me fight for, fight to stay in school. So, I had a great time in English because she saw potential in me.”

On the other hand, another student, Walter, described a "tough" experience in his English course. He attributes that to the fact that he was out of school for 13 years and this was his first-time attending school in the United States. He also shared that English is his third language and pointed out that though it was not easy, he “managed” through his English course.

Similarly, this was Juan's first class in college and he described his experience as "very eye opening". His English course was also "a little bit overwhelming" initially, as compared to his reading and writing skills, he pointed out that his speaking skills needed improvement. Through his individual and focus group interview, Juan referred back to materials he saved from the course and shared the many things he learned, such as how to

write an essay and how to become a critical thinker. Juan also expressed that he had a "really good" teacher.

Another student Richard, was the only student in the group that experienced both an English and math corequisite course. Richard noted that math was in person while English was online. He enjoyed the “fun atmosphere” that the math professor provided which allowed for a "good" in person experience. He noted that the professor was “very prepared” and provided a lot of information for the course. Lastly, Lily's enthusiasm of her English course was evident, she repeatedly spoke about her "love" of the teaching style of the professor, noting that the class was "fun" and "interesting". Lily shared the following regarding her professor “you can see the passion in him that he loves his job and he's good in it, he gets excited when you get something right and that kind of like encourage you.”

Lily also found it encouraging that the professor gave feedback and allowed students a "second chance" to improve on their work. The expressions of the students were overall positive, however, David, Walter and Juan described their challenges due to either administrative requirements or them being a novice to the college environment. The expressions also reveal a supportive and instrumental role of the professors in the experiences of student participants. As such, students expressions highlighted the characteristics as well as teaching styles of their professor which aligned with how the two faculty members described their experience in teaching corequisite courses.

Sub-theme 2: Faculty Experience. In regards to the English and math faculty participants, when asked how they felt about the corequisite model and the implementation of the policy at the college, the two faculty participants also expressed

positive views. Both professors found the model “interesting” and “good for the students.” They shared the following: (professor Flowers) “I find it very interesting, because in addition to what I'm doing it kind of strengthen the learning experience for all of the students.” Professor Daisy shared that the model is beneficial in that “students are able to work with classmates who have a range of strengths and challenges in reading and writing.” Additionally, the model “encourages faculty to integrate reading with writing and reminds faculty that reading and writing are holistic skills.” The expressions of the faculty participants reiterated the characteristics as well as their teaching styles highlighted by student participants. The similarities in experiences of both student and faculty participants underscored the impact of the corequisite course on learning.

Theme 2: Corequisite Course Impact on Learning

The final main theme that emerged during the analysis of collected data for research question one, explains how the corequisite course provided a good foundation for students leading to a “domino effect” and an overall positive impact on student learning in the subsequent semester. Each student participant shared how instrumental their experience in the corequisite course was to their growth in learning math and English. Juan pointed out how much English contributed to his writing skills in other courses "I was number one in my Politics class because of English." Interestingly though, Juan initially noted that "in the beginning it was a little bit overwhelming", this was because he was expecting that the course would focus on pronunciation and help him with speaking English but he later learned that the course was more about reading and writing.

During his individual interview, Juan also shared his note taking practices and pointed out that he still uses them and had brought them with him to the interview. He reiterated this in the focused group interview and credits those notes for his success in the course. His preservation of the notes, shows the importance of them to him and their usefulness as he progressed through another semester at the college.

Additionally, the corequisite course impact on learning was underscored by the focus group conversations. This facilitated a reflection by students on the negative impact of failing their corequisite course. All the students noted that it "would have been discouraging." This feeling of discouragement was because they perceived that they had committed a lot of time and energy into the course. On the other hand, some students also talked about the financial challenge of needing to retake the course and "wasting money", suggesting that they would have transferred to another college if they did not pass the course at that time.

Similar to students, each faculty participant also shared on how instrumental the corequisite course is to student learning. Faculty also shared on the vital attributes of the corequisite course that promotes student learning and success. Professor Daisy referred to the impact of the corequisite course on the practices at the college has a "big shift." noting that it would impact student behavior and student life and help faculty to "stop treating developmental remedial students like basic writers, thinkers and readers."

Furthermore, professor Daisy reflected on the administrative demands and response to national trends in DE and the constant revision of developmental courses over the last 10 years. This she indicated was in response to DE reformers questions as to why DE students are not graduating at the same rate as non-DE students. These challenges

underscore the significance of the study and the reason this research sought a deeper understanding of how the corequisite model promoted DE student success as shown by several quantitative studies.

The analysis of the faculty interviews, shows that the college completion movement have caused faculty to think ahead for developmental students regarding what happens to them after they complete the corequisite course. Moreover, this has shed light on the importance placed on student learning outcomes from the planning stage which is corroborated by the document review. Furthermore, an analysis of the course syllabus and university guidance document showed an intention on the need to develop corequisite models to each college's student population that would allow students to develop skills essential in pathway courses. Both the guidance document and course syllabi show an ultimate objective by administrators to support DE students and promote success in pathway courses.

Lastly, in discussing other impacts on practices at the college, professor Flowers describes the use of a license and a platform for his math course. He saw this as an improvement over his regular math course which did not provide that support for students. The benefits of this platform on learning were also corroborated by the student interviews as they discussed their appreciation of a Mathlab platform which they could use at their own pace. Likewise, the faculty interviews revealed that faculty see that there has been a positive impact on the outcomes for corequisite courses. One faculty attributed this to the fact that the model "help faculty think about working with developmental students" the model also help faculty to think "how they are taught and how they learn."

As such, the college is thinking bigger. Data revealed that from an administration perspective, there has been a lot of thought put into developmental strategies for the college based on the strengths and challenges of DE students and what opportunities the college can use to promote better outcomes for them. The faculty participants also discussed the impact of the corequisite model on their teaching style. (Professor Daisy) "the more personalized the assistance a student receives the more benefit they gain." Professor Daisy further shared that she is experimental with her teaching and utilized many exams and also conducted smaller assessments. Approaches such as this would foster some of the improvements the students suggested in the focus group interviews.

Additionally, Professor Flowers shared similar practices as professor Daisy, through the use of a peer leader in his math class. This he believes is more beneficial to the student than sending them to a computer lab or tutoring lab where they may work with different tutors each time. Accordingly, the impact of the corequisite course on student learning is evident from the analysis of both student and faculty interviews which reveal the "domino effect" and continual use of knowledge and skills students transferred to other courses in the subsequent semester.

Sub-theme 1: The "Domino Effect." The experience in the corequisite course provided what one student described as "a good foundation" and "a domino effect". The analysis revealed that students believed that the course materials they received and the learning experience facilitated their success in gateway courses they are currently taking and has also prepared them for upcoming courses. One student commented, "I am more confident writing my papers", "I find joy in writing papers and reading assignments" other comments included, "the way I used to approach my essay was different" and "they

brushed me up good." One student graded the course preparation for additional courses as a nine out of ten, for him the experience in the corequisite course also provided an understanding of what the experience in other courses would be like.

For another student, Juan, though his course was English, he felt that the course prepared him overall for "not just English but other subjects in general." Violet pointed out that she was intimidated after asking other students about the college level math course, but after taking the course, she was pleasantly surprised and had a great experience. Overall, the experience in their corequisite course made student participants look forward to other courses such as chemistry and higher levels of math. Also, some students found that they developed skills including typing, writing, and reading and became better at studying, as well as critical thinking skills. Richard noted that critical thinking was the biggest increase he developed in the course.

Research Sub-Question A

What are the factors that facilitate the academic success of students taking developmental education corequisite courses? This research question extends the main research question to examine the factors that facilitated students' academic success in their corequisite courses. Four themes emerged from the data set that addresses this research question (a)faculty approach (b) students' time and effort (c) students' motivation and (d) "a good support line." These themes were substantiated by both the individual interviews, focus group and document review.

Theme 3: Faculty Approach

After reviewing multiple cycles of coding, faculty approach was seen as the first theme in response to research sub-question A. The two faculty participants believed that

the model goes along with their methodology of teaching as they expressed in the interviews their teaching philosophies and teaching styles. This was also corroborated by the student individual interviews and focus group interviews. During the faculty interviews, it was evident that both professors had a deep commitment to working with and helping students in developmental education to succeed. Professor Daisy reflected that she has experienced the implementation of different DE models at the college over the years and noted that all models “have some benefits and some drawbacks” therefore it is hard to tell which model works best. She pointed out that the corequisite model encourages a new way of thinking about DE students. This was evident in speaking with both faculty participants and hearing how they work with DE students and how they restructure their course content to meet each student’s needs.

Each faculty participant was asked to define academic success pertaining to their individual corequisite course. The analysis revealed that for both professors, academic success is not just based on a pass in the course, but more so on how the course content is taught. Professor Daisy noted "I do a very individual approach" which is tailored to match the goals of each student.” She further explained “I think that one-on-one work with the students can’t ever be replaced… it’s really how the faculty member approaches their work with the student that makes the difference for the student… the model is secondary in some ways.” An important observation here is that the student interviews attest to this suggestion by professor Daisy that the model is secondary to the individual approach of working with and gearing the course materials to each student’s needs. Blossom and David expressed how individual feedback from their professors helped to improve their coursework.

Professor Flowers also takes an individual approach by explaining mathematical concepts through real world examples such as the stock market. He spoke fervently about his early days at the college, where he pondered on what was the most important business in New York City. His answer was “the stock market”. As he enthusiastically reflected on some of his teaching exercises and two of his students who are now brokers on Wall Street, he commented “not only they learn the mathematics behind the stock market game, they learn to apply the knowledge that they learned in the classroom and so forth.” Professor Flower’s main intention is to ensure that students understand why they are solving a problem as well as the necessary steps in solving the problem. Students attest to this approach as they shared their appreciation for how their professors broke down the course material to help them better understand.

Additionally, the students also shared that individual feedback and opportunity to redo an assignment helped them to understand the course fully. During the student interviews and focus group, students expressed the importance of connecting with their professors and appreciated any outreach from faculty to assist with challenges they experienced. As professor Daisy poignantly shared, the administration provides models however “what happens in the classroom might not be what they anticipated. In emphasizing her initial thought, she went on to point out that “I think the results have more to do with the student and the faculty and the work they do than it does with the model.” Again, this connects both student and faculty perceptions on classroom experience in corequisite courses.

In addition, the document review revealed that the corequisite model implemented at the study site is flexible and allows the faculty opportunities to align their work to their

pedagogical style. For example, Professor Flowers uses what is relevant to the environment of his students while Professor Daisy seeks to better understand the students and how her course content can align with their individual goals. As the student participants are all taught by different professors, their expressions suggest similar approaches by other corequisite faculty to understand the challenges of their DE students, which may not only be academic but also personal. In the same way, during the document review of the guidelines on implementing the corequisite model as well as course syllabus, the data showed an emphasis on student centered approaches to working with DE students in corequisite courses and improving their success outcomes. Overall, analysis of the triangulated data shows that faculty were able to infuse their teaching philosophies and teaching styles into how they teach their corequisite course which led to a student-centered learning experience.

Sub-theme 1: Student Centered Learning. Based on the student-faculty connections students described and the approach utilized by faculty in teaching corequisite courses, this led to the sub-theme student-centered learning. Both professors Daisy and Flowers discussed how they ensure that course materials are relevant to real world concepts. Professor Daisy explained how her course may be modified to suit student's individual needs. She made reference of the college completion movement and noted that the new model thinks about students after they complete the course - "we're thinking about the big picture more." To that end, the model in itself speaks to this approach in allowing the college to provide academic support strategies to address the learning needs, goals, and cultural background of DE students.

Overall, both professors believe that the model helped to change the perspectives of developmental education faculty, for example professor Daisy noted that “I really do try to engage students” she believes it is important for students to understand and “see how writing and reading work in their lives.” Similarly, professor Flowers emphasized the importance of the peer leaders in the corequisite course and their impact on providing a different approach for students. He utilizes peer learning as he believes that “somebody in the group have a different way of explaining the problem." This allows students to learn from each other as professor Flowers noted that the model provides a “sense of belonging” for students as they learn together and become aware of a community within the classroom. He further explained, “I always try to go back to money” … students understand money”, with this, students can apply the knowledge of mathematics to world problems.

A review of the course syllabus and interview with the students corroborates this as students are taught in the math course to problem solve, recognize patterns, and draw accurate conclusions to apply to their everyday experience. Additionally, professor Flowers uses the inquiry-based learning procedure emphasizing that this reminds students that they can always use a search engine to find some idea of what the question ask for. He also uses a universal design for learning as he believes that “different people learn different ways.” These student-centered practices underscore the importance of success in DE courses to each faculty participant.

Theme 4: Student’s Time and Effort

The second theme in response to research sub-question A is students’ time and effort, which became apparent as students candidly discussed their experience in their

corequisite course. From the interviews and focus group it was evident that the students all put a lot of time and energy into preparing and completing work for their corequisite course. Questions four and five from the student protocol sought to find out what steps students took to ensure that they understood what was taught during their class and the steps they took to complete their coursework and assignments. Their responses provided ample insight into the level of physical and mental effort students devoted to the course. Their efforts are described in qualitative and quantitative sub-themes below. Together these two sub-themes describe students perception of their level of involvement in the corequisite course.

Sub-theme 1: Qualitative Involvement. The first sub-theme that emerged regarding student time and effort in their corequisite course was qualitative involvement which explains each student's dedication to learning in the corequisite course. The students expressed their participation in class qualitatively through actions such as, attending classes, being attentive in class, note taking and expressing their interest and role in the learning process. It was evident that their qualitative efforts aligned closely with their internal motivation, expressed as the need to get the work done. For example, for David there was no question if he needed to make up his missing coursework. He expressed that he just needed to submit his work and submit it on time and that these were not necessarily steps taken to ensure the work was done but more so a must do. (David) "just made that a part of my duty"

Another student, Richard shared similar sentiments about the need to complete his coursework, "I don't think I really took any steps; I just did." Another student, Blossom commented, "tried to do my best to get the full use out of that class." Lily's responses

revealed how she saw her role as a student versus the role of the professor. It was evident from the data that there was a role students thought they had to play in the learning process and also something to gain from the process, whether it was completing the course successfully, getting accepted into an Allied Health Program, or earning their degree.

Sub-theme 2: Quantitative Involvement. Regarding student time and effort, quantitative involvement emerged as a second sub-theme as students discussed the physical actions they took in order to understand what was being taught in class as well as complete their coursework and assignments. The participants underscored the importance of following instructions and taking action or seeking help to complete their coursework. Lily expressed the need to read every day. “I read in the morning, I read at night. I don't stop because that's the only way I can be on top of understanding what is being taught." The students would also do work outside of the classroom including: reread the information they received in class, check Blackboard, watch YouTube videos, consciously set aside time for assignments, stay on top of assignments, redo an assignment or test for a better grade, and do research using search engines such as Google.

One student in particular, Walter, explained that he would write down words that he did not understand and search for them on Google Translate in his native language, French. This he noted helped him to better understand the meaning of a sentence. Additionally, majority of the students emphasized the importance they saw in asking questions and in having a relationship with their professor. (Violet) “I always ask questions when I don't understand something." This was similar for the other students

who expressed that they were not afraid to ask questions. Interestingly, the focus group interviews facilitated conversations between students surrounding the importance of communicating and forming a relationship with professors, as well as the amount of time and effort students dedicated to their coursework. Blossom and Lily shared:

> Blossom: I have something to say, I personally find having a good relationship with your professor really worked for me. Because if I have issues on something, I don't really understand what the professor want from me, I go to the professor, each of my professors know who I am.
>
> Lily: And I could relate with what she said. Because I don't want to be in a class and the professor don't know who I am. No, I'm not just passing through, I'm in this class and you have to know me, you have to know my strength. You have to know my weakness. So that way you will be able to assist me so that sometimes when I don't do well, in certain things, you know, what is wrong? And I come to you, you won't see me as wanting to get free credits, or knowing that I am working to doing better. And, I don't think a day goes by that if I study, I don't think I've ever study like three hours a day. I do more than that in a day, every day. So, with that said, I will always pat myself in the back. I am doing the best that I can give.

Below is another interesting exchange between the participants during the focus group interview as they discussed and agreed that they put a lot of time and energy in their corequisite course:

Researcher: So, I am hearing you all share about time and energy put into your coursework. If I were to make the statement that you put a lot of time and energy into the corequisite course, would each of you agree with that statement?

Blossom: Yes, I would.

Lily: I put in 100%.

Blossom: Yes, I agree, because sometimes I get up four o'clock in the morning.

Violet: I agree too, because I work full time and also I'm taking like five classes.

Walter also agreed sharing that he completes his homework at nights after working full time, "sometimes I even work 14 hours you know, when I get home I got homework to do. You should sleep, you don't sleep, and early in the morning you'll have to wake up and go to work or go to school. That's a lot of sacrifice." Juan then shared that it would take him two or three hours to work on an essay each day. For other students, time and energy in the course means, (Richard) "a lot of work balance". David shared similar sentiments noting that to catch up on his coursework "he worked practically every day" and his boss was very understanding of that process.

Analysis of the pre-study questionnaire shows that the student participants are enrolled full time and six of the eight students also work. As shown in the focus group exchange, this impacts the amount of time that students can contribute to their learning. Nevertheless, the students discussed their goals, explaining several internal and external factors that motivated them towards those goals. This underscored students' motivation as a facilitator of academic success in corequisite courses.

Theme 5: Students' Motivation

In identifying student motivation as a theme, the researcher utilized first cycle In Vivo codes and second and third cycle pattern codes to gain an understanding of the factors that facilitate the academic success of students. The analysis revealed internal and external factors that motivated each student. For example, David's emphasis on "submit, submit", it was as if he had an internal motivation that said the work must be submitted. Richard also shared similar sentiments, noting that he did not take any particular steps "every time an assignment is to be done, I will make sure I do it." Some factors students discussed can be seen as internal motivation while others describe an external motivator.

Internally, students talked about becoming a more successful person and adding value to them-selves. One student, Blossom, emphasized that the class taught her something new that could be applied to her life. For another student Violet, knowing that the class was needed was enough motivation for her. It was also evident that for students such as David, who experienced challenges, they turned those challenges into a motivator. In addition, students described external motivations including financial and family obligations, the need to have a degree, earn higher salary, get a better job, and to earn respect from others. Additionally, both Walter and Lily saw their children as their motivators. (Walter) "when you have children to, like, you know, you need to do something, because I believe they will follow you, they will follow your steps" Lily could relate to Walter and noted, "I'm going to push forward because my oldest daughter will be in college in August. My other kids, they coming behind… I tell them, education is very important. You have to study and study and study even is if it's difficult. So, I don't have a choice because they watching me."

These sentiments also highlighted how students felt about being placed in developmental education. During the focus group interviews students shared their thoughts on their placement in DE and the analysis revealed that they had mixed feelings, however they understood why they were placed in DE and majority felt it was necessary. Juan initially had a negative mind set about the course but as the weeks progressed and he saw how well he was doing he felt motivated to continue. Lily described it as “a part of learning and that there is no education wasted.” Furthermore, majority of the students after learning about their placement in DE, also thought about the extra time it would take to complete their program as well as the financial implications. Despite these concerns, the analysis of the student interviews and focus group interviews revealed that students’ motivation were influenced by their individual academic goals.

Sub-theme 1: Academic Goals. Students were asked to describe their academic goals in the course, Table 5 depicts In Vivo codes based on their responses. Across the board students’ academic goals were similar, some wanted to simply pass the course while others had a specific grade in mind. Both Lily and David aimed for A grades while Blossom, Dahalia and Violet wanted to understand the content of the course. Juan and Walter wanted to speak better while Richard wanted to write better. Juan notes, "I was thinking about speaking", that is, he was initially thinking about improving on his speaking however once he understood what the goal of the class was, he changed his academic goal from speaking to writing. This emphasizes one challenge that both professor Flowers and Juan repeatedly mentioned in their interviews, which shows the need for students to receive an orientation to gain a better understanding of what the corequisite model provides.

Table 5

Academic Goals of Student Participants

Student Participant	In Vivo Codes
Blossom	"I just wanted to get the best out of the English"
Violet	"Pass the class"
Walter	"To speak better English"
David	“To get an A"
Juan	“How to write an essay"
Dahlia	“Get a better understanding of math"
Richard	English: "To be more fluent in the writing process"
	Math: "Learning the formulas to each equation"
Lily	“Aim for A the grade"

Overall, it was evident from the interviews that students’ academic goals influenced their behavior and level of participation in the course. In accomplishing their academic goals, data analysis also revealed various supports students used to achieve academic success in corequisite courses.

Theme 6: “A Good Support Line”

The analysis of the data collected including individual interviews, focus group interviews, and document review, revealed that the corequisite course provides “a good support line” for students. It is known that support is a vital factor to student success especially those at risk of early departure. Therefore, this theme emerged as an intricate factor that facilitated the success of DE students in corequisite courses. Students were asked what comes to mind when they think of the word support. The responses included tutoring, the school, success coach, staff at the college, teachers, students, family and friends. These describe the supports students believe were available to them and they utilized as challenges arose.

Support was especially important for students who were out of school for a long period such as David, Walter and Blossom. During the faculty interviews, professor Flowers reflected on this, noting that the student population that he has taught over the years, many of the students have been out of high school for 10 or 15 years. He has used this observation over the years to tailor his teaching to each student. It is with this approach that faculty are seen as one of the key components in the network of support for students in corequisite courses. Other resources or services provided as described by the students include the library, Microsoft teams, loaner computers from the school, the writing center, financial aid, and office hours with the professor. However, there was unanimous consensus on the support felt through faculty, tutors, peers, and resources provided as part of the corequisite course. These will be discussed as sub-themes below.

Sub-theme 1: Faculty Support. Students described their professors as a good support in helping them to navigate the coursework and also other challenges. In navigating his challenges with the vaccination requirements, David felt supported by his professor noting that "the number one thing she never made me give up…. she called me like every day and motivated me… that teacher was a blessing." Other students described the professors as being supportive through their quick response to emails, spending time to show them how to create a paragraph or construct a sentence, and reviewing assignments in class. The students appreciated the attention and time that was given to these areas. For Richard, his professor spends a lot of time in the class breaking down a problem until it got to the correct answer, this allowed each student to see how a problem was solved from beginning to end. The appreciation by students corroborates

with what professor Daisy describes in her interview as necessary. As such, her approach is to provide adequate feedback to students instead of only using rubrics.

Sub-theme 2: Support from Tutors. Students also expressed that support from their tutors were instrumental to their success in corequisite courses. Dahalia and Violet described the support they received from their tutors in the supplemental sections of the corequisite courses which provided help to review course materials the professor initially discussed. The method of reviewing as well as the different approach a tutor used was helpful to students. This was also corroborated by the faculty interview where professor Flowers shared on how instrumental peer leaders were in their role as tutors in the supplemental section of his math course. Additionally, another student, Lily, found the support of tutors from the college's Academic Learning Center helpful and developed a relationship with them that she continues to utilize for other courses.

Sub-theme 3: Peer Learning. The students also found the experience of working with other students helpful. Though the students did not share much on socially interacting with their peers in class, some students noted that they enjoyed working with other students through online discussion posts and classroom discussions. Lily found it very helpful how the professor would discuss what was needed for an assignment in class. She noted, "everybody bring their idea" and described the experience as a family sitting down to discuss a problem. From the analysis, it is possible that social interaction was limited due to impact of the COVID-19 pandemic as well as the online nature of the courses.

Sub-theme 4: Course Resources. Within the corequisite course experience, technology is seen as a big support for students. The students describe and appreciated

the use of several technological resources including the Blackboard platform that professors post information on as well as a Mathlab virtual desktop application, Pearson's platform, virtual tours, online videos that students are able to watch and learn more about what was discussed in class, loaner computers that the school provided, a license that the school provided for the math supplemental portion of the course, the college computer lab and various search engines and other free resources including free text books.

Research Sub-Question B

What are the factors that impede the academic success of students taking developmental education corequisite courses? This second sub-research question aimed to understand what factors may impede DE student's academic success in corequisite courses. Two themes emerged from the data within this research question (a) challenging experiences (b) suggestions for improvements. Both themes were substantiated by individual faculty interviews as well as the focus group interviews.

Theme 7: Challenging Experiences

The first theme that emerged which addressed this research question revealed challenges students experienced while participating in corequisite courses, as well as factors faculty perceived impeded DE students' academic success in corequisite courses. The eight student participants in the study successfully completed their corequisite course in fall 2021 and re-enrolled at the college in Spring 2022, therefore these students attained academic success as defined by this study. With that, the students did not identify specific factors of the corequisite model that impeded their academic success, but instead discussed individual challenges they experienced and how they overcame those challenges. On the other hand, the two faculty participants shared various academic and

administrative factors associated with the corequisite model that they perceived impeded the academic success of students in corequisite courses. The two sub-themes below discuss the perceptions and experiences of the students and faculty.

Sub-theme 1: Student Challenges. When asked about what negatively affected their success in the course, each of the eight students reiterated the challenges that they experienced including unpreparedness for college work, COVID-19 restrictions, instruction mode, course material, balancing work and school life, scheduling tutoring, and use of technology. Two students Walter and Juan, felt like they were not prepared for the course. Walter pointed out that the school library was closed due to COVID-19 restrictions therefore he had to use the library online and this compounded the challenge that he was not an online person and also had internet challenges at home. Walter also felt unprepared because he was out of school for 13 years and saw English as his second language. Juan had similar feelings of unpreparedness based on his challenge of reading in English.

Additionally, David spoke frequently about his challenge of being put out of his English course due to COVID-19 vaccination requirements and having to catch up by completing four essays within a week. Violet also expressed her challenges with the course material as well as the instruction mode of the course, noting that "I am an in-person person" therefore she did not enjoy that the class was online and on a Saturday. Another student, Blossom, though she often shared that she did not need the corequisite support for her English class, she noted that her challenge was understanding the amount of new material in the course and structuring it the way the professor wanted. Dahalia spoke about her challenge of balancing work and school life and staying on top of the

course work each week. Richard noted that nothing negatively affected is coursework, however, he had minor challenges with multiplication problems in the math course and punctuation in his English course. Lily spoke passionately about her challenges of finding an appropriate tutor to work with. She also expressed that technology was her weak spot and explained:

> My challenge was the technical part, because trying to use technology to search for what I want, was difficult. I kind of like, wasted so much time, trying to do it on my own. And by the time I was able to reach out to one of the Librarian, God bless her heart, she was like, that's what we're here for. You know, and just like you did, she put me on Zoom, and she navigated me through the entire process. And then it was close to me submitting the projects. I didn't want to tell the professor because I don't know if she's gonna believe me, you know, like, they probably hear so much story. Like, I don't want to do this, but I've been having difficulty. But the librarian said, don't do that, still reach out to her, she's human. And then I reached out to her, and she was like, very understanding, it was shocking. Then she gave me time to submit the project.

Lily's approach to overcome her challenge was similar to how the other student participants approached their challenges. The students were very resilient in connecting with supports across the college including working with their professors, tutors, success coaches, utilizing online resources such as YouTube and practicing on their own. The students appreciated the opportunities professors provided to redo an assignment and Blossom noted that to overcome her challenge she would follow her professors instructions to the best of her ability.

Sub-theme 2: Faculty Challenges. "Teaching developmental students is hard", this sentiment expressed by one of the professors underscores the general perception of working with DE students who are described as “at risk” and the many challenges DE students face in relation to what is described as their entry characteristics. The professors discussed what they believed were lacking from the corequisite course and what might improve outcomes. Professor Flowers expressed his opinion on the need for an orientation at the beginning of the course. He believes that this would provide a starting point for students in terms of information and would "show them the purpose of what they are learning" and also provide a standardization across the corequisite courses for faculty.

Professor Flowers reiterated his use of the peer leader in his math class and painted a picture of how the peer leader would attend the class to better understand how he explains the solution to a problem to students so that they also understand how he teaches. He also explained that in other classes the peer leader might only be used as a tool outside the classroom and never attends the class. In addition, professor Flowers provided an example of how students often try to balance work and school life with other daily roles which negatively affects their participation in class.

Likewise, professor Daisy discussed the challenge of how faculty are taught to think about developmental students and how this impacts how they work with DE students. She also discussed the challenge of class size and faculty time per student and expressed that “students don't get the feedback that I think is helpful". This challenge is as a result of faculty use of rubrics which she believes negatively affects students when it replaces individual feedback. This she suggests is in response to the exponential increase

in faculty workload over the years. “I think students work better when you respond individually to what they’ve written”, this reflects professor Daisy’s views on how instructors can work towards improving the academic success of DE students.

Theme 8: Suggestions for Improvements

This final theme reports the findings for research sub-question B and explains how DE courses at the study site could be improved. Question nine of the student and faculty protocols asked the participants to share how they believe the corequisite course could be improved. The findings show that though both students and faculty had an overall positive experience with corequisite courses, both groups of participants felt that the model could be improved. Sub-theme one and two discusses students and faculty suggestions.

Sub-theme 1: Student Suggestions. Due to the fact that students did not have challenges with the course itself, majority of them stated explicitly that they did not see any improvements needed. Violet expressed "I actually don't see like something that could be improved". With that, the students praised their professors for how they taught the course, (Lily) "I think that they did the best… with that kind of professor, what more do you want… just left for the students to like do their own part". Students who gave suggestions include Blossom, she suggested that students who do not need the support section of the course end up paying for it unnecessarily. Therefore, she suggested that the school " have an exam or something for some students". Similarly, Juan suggested that the school should focus on how students are selected for the course, noting that "they need to specify what the course is about." Lastly, Dahalia pointed out the need for extra

funding for faculty to purchase course materials such as calculators, which she perceives negatively affected some students in her class.

Additionally, the individual interviews were corroborated by the focus group interviews with student participants. Students were asked "if you were on the planning committee for developmental education requirement courses what would you ensure was in place to help developmental education students to be successful?" The responses include, (Richard) "I think that the strength is being more attentive to the students." Another student David suggested, "I would make more opportunities to offer one-on-ones. I think the one-on-ones is the most important part of the work. It's more where you're more into have a more intimate conversation with the professors." This suggestion by David reflects what professor Daisy expressed in her interview as important improving DE student success.

A third student, Juan suggested, "I would make sure the students know what they are going into before their first day of class or the fifth week and making sure they don't feel overwhelmed." Juan's response stresses a point he continually brought up throughout his individual and focus group interviews. As such, the researcher sought a deeper understanding of how Juan perceived the challenge could be fixed:

> Researcher: Do you have any idea how you would do this?
>
> Juan: Maybe a short interview of what they can expect … because like someone like me, like now I have an idea, but before I didn't have any idea and if someone could tell me what this class is about, like maybe a short introduction, that would be great for some people.

Another student, Lily, ardently shared her suggestion "when you teach students don't just look at them like the statistics… we have to show concern that we want that student to succeed… you have to have an open-door policy where the student can reach out to you and you can respond back instantly." Lastly, Violet and Walter both discussed the need to build relationships between students and faculty. (Violet) "I will make sure to understand them, what the need in order to succeed with their classes." (Walter) "I will try to get a good working relationship with students… I will not treat them with the equality but I will treat them with equity." Students' suggestions for improvements revealed some of what faculty described in their teaching methodology and essential to improving corequisite courses at the study site.

Sub-theme 2: Faculty Suggestions. Both instructors believed that the model is good, however there is room for improvement (professor Flowers) "the way it is right now I say that the model is, let's put it that maybe 95% good, so yes, it could improve... it's pretty good for the students that we have, it's doing a good job". In discussing suggestions for improvement, the professors discussed needed resources and opportunities for engagement. These include free text books, online videos, additional online learning platforms, smaller class sizes and experimentation and feedback. The faculty participants were aware that these changes will not be implemented over night but may take some time to fully impact the corequisite model and teaching styles of its faculty across the college.

Conclusion

This chapter presented the findings from this study on the experiences of developmental education students in corequisite courses and the factors that promoted or

impeded their academic success. Analysis of individual student and faculty interviews, student focus group interviews, as well as document review of the faculty participants syllabus and a university-wide guidance document on the implementation of the corequisite model, revealed that DE students participation in corequisite courses lead to academic success through student's having a positive experience in their corequisite courses. This resulted in what participants described as a "domino effect" and a positive impact of the corequisite model on their continued learning experience in other courses. In addition, students' academic success was facilitated by the approaches taken by faculty, the time and effort students committed to their corequisite courses, the internal and external factors that motivated students, and supports students received college-wide. Particularly support from their professors, their tutors, peers and resources made available in the corequisite courses.

Conversely, students' academic success was impeded by challenging experiences, however, all of the eight student participants successfully completed their corequisite course and progressed to the subsequent semester. Analysis revealed various supports that students utilized to overcome their challenges. Nevertheless, the participants shared suggestions for how the study site can eliminate or reduce these challenges for future DE students.

The findings of this research align with quantitative studies that shows the successes of students in corequisite courses. The findings also show how the corequisite model promotes student success by providing a supportive environment to meet the needs of DE students and reduce exit points. Additionally, the findings fill a gap in the literature by providing the perspectives of students and faculty who participated in corequisite

courses as well as underscore how important student perspectives are in evaluating programs and in revealing concerns and suggestions that can only be highlighted through speaking with the corequisite participants themselves.

Chapter 5 provides a discussion on the findings pertaining to literature reviewed and theoretical framework of student involvement (Astin, 1999) and student integration (Tinto, 1993). Limitations of the study are also discussed. The chapter ends with recommendations for future practice as well as suggestions for future research.

CHAPTER 5: DISCUSSION

Introduction

This qualitative study was designed to explore developmental education students' experience in corequisite courses. Driven by a desire to understand the increase in success rates of DE students at colleges across the United States that have implemented the corequisite model, the researcher sought to better understand how DE students experience corequisite courses and what factors facilitate or impede students' academic success. To achieve an understanding from the students' perspective, a case study methodology was utilized which illuminated the voices of eight students who successfully completed a corequisite course that led to enrollment in the subsequent semester. Several authors highlight the importance of faculty perspectives; therefore, insights were garnered from two professors who have taught DE courses at the study site for over ten years. The perspectives of the math and English professors were intended to provide a different dimension to understanding how corequisite courses facilitate academic success for DE students.

The study addressed one main research question and two sub-questions. The main research question sought to examine how participation in the corequisite model promotes academic success. Sub-question A inquired about the factors that facilitate the academic success of students enrolled in corequisite courses while sub-question B investigated the factors that impede the academic success of students enrolled in corequisite courses. Analysis revealed that DE students enrolled in corequisite courses achieve academic success primarily due to their positive experiences in corequisite courses as well as the impact the corequisite course has on students' learning.

Additionally, the factors that facilitated these positive experiences and influence on learning include approaches taken by faculty, the time and effort students committed to their corequisite courses, the internal and external factors that motivated students, and supports students received across the college, particularly from their professors, tutors, peers and resources made available as a part of the course content. The study also revealed that though the participants completed their corequisite course and progressed to the subsequent semester, they experienced several challenges. The participant suggestions for improvements to these challenges underscore the significance of this research.

This chapter examines the major findings of the study in relation to the research questions and the theoretical concepts of student involvement and student integration discussed in chapter two. The chapter also discusses the relationship of the findings to prior research and limitations of the study. Finally, the chapter concludes with suggestions to practitioners and policy-makers on how the findings can be applied to DE policy reform, and future research.

Implications of Findings

The findings of this study provide perspectives directly from students and faculty on how participation in the corequisite model influences students' academic success. Additionally, the review of course syllabi and guidance document provided insights on the structure of the corequisite model at the study site and its aims to provide essential skills to facilitate student success. The research questions guide this study as they explore key concepts of Astin's (1999) student involvement and Tinto's (1993) student integration theories. The analysis of the triangulated data revealed eight themes in

accordance with the research questions. The findings of the study have theoretical implications and are discussed below.

Research Question 1

Research question one sought to find out how participation in the corequisite model promotes the academic success of students placed in developmental education in a community college in New York State (NYS)? Data analysis in response to question one shows two prominent themes that emerged throughout the interviews and focus group. These include the overall positive experience that students had in their corequisite course, as well as the positive impact the corequisite model had on students' learning, which led to success in the corequisite course and re-enrollment in the subsequent semester.

In describing their experience, both student and faculty expressed positive emotions. An interesting observation was that the student participants associated all of their positive emotions to one thing - the relationship with their professors. Consequently, their enthusiasm of the course often involved a description of the characteristics and teaching styles of their professor. The findings also reveal that students felt encouraged by the knowledge that the corequisite course provided and saw value in transferring the knowledge and skills gained in the corequisite course to other college level courses. One student noted that the biggest gain was critical thinking skills.

This led to academic success where students were able to successfully complete their corequisite course in fall 2021 and return to the college to continue their program in spring 2022. The return of students to the subsequent semester suggests that students felt integrated into the institution. This discovery aligns with Tinto (1993, 2012) where the

author suggests that students are more likely to re-enroll in an institution if they are academically and socially integrated into the institution.

In addition, faculty interviews and documents reveal intentional goals to improve student success in corequisite courses as well as future college level courses. The document analysis revealed that one of the major aims of implementing the model at the college was to ensure student success in their corequisite course and that the course allowed students to develop essential skills that would facilitate success in pathway courses. This aligns with postulate five of Astin's theory which notes that "the effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement" (p.519).

Research Sub-Question A

The first sub-question in this study investigated the factors that facilitate the academic success of students taking developmental education corequisite courses. One of the main factors that facilitate the academic success of students taking developmental education corequisite courses was faculty approach. The findings revealed that faculty implemented pedagogical techniques that were student focused and encouraged a student-centered learning environment within their classrooms. Additionally, document analysis revealed that the flexibility of the corequisite model allowed faculty to re-structure their course content to individual student's needs. This aligns with Tinto (1997) as he theorized that various changes in curriculum and pedagogical programs can impact student outcomes. Moreover, the flexibility of the model to adapt to a specific student population is one characteristic Adams (2020) notes contributes to the success of the model. This shows how Tinto's theory ties into the corequisite model.

Additionally, the findings revealed that the corequisite model aligns with the teaching methodology of the professors which influenced the approach they took in teaching. This was evident in how each professor defined academic success of students in their corequisite course. According to professor Daisy "success should be measured not only in students passing gateway English but also in students succeeding in their other college writing, including the second semester." In addition, professor Flowers describes academic success in relation to a student's understanding of how to solve a problem and understanding what the steps are, he shared "look at the problem, analyze what information you have, what information you need, and then try to solve the problem."

Remarkably, the definition shared by both professors align with the definition of this study which looks at academic success as both success in the corequisite course and a return to the college the subsequent semester to continue their program. Astin (1999) notes that administrators often ignore or overlook what is going on with the student while concentrating on their own techniques. The findings reveal that the faculty at the study site have blended their approach with the model to meet students need. With this student-centered learning promoted by faculty at the study site the corequisite model allows faculty to think more of what the student is doing, what their goals are, engage them and make the course content relevant to the specific student.

Another factor which facilitated the academic success of students in their corequisite course was the amount of time and effort students placed in their corequisite courses. As students discussed their academic goals in the corequisite course, analysis showed that they were committed to achieving these goals. As such, students spent a lot of time and energy into getting their coursework and assignments completed. This

revealed a degree of involvement as suggested by postulate number four of Astin's theory which suggests that the amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in the program (Astin, 1999).

Involvement as defined by Astin (1999) is the quantity and quality of physical and psychological energy that students invest in the college experience. The findings of this research revealed both qualitative and quantitative involvement of students in the corequisite course. For example, Lily expressed the need to read every day. I read in the morning, I read at night. I don't stop because that's the only way I can be on top of understanding what is being taught." According to postulate three of Astin's theory, involvement has both quantitative and qualitative features which explains the extent of the student's involvement in academic work, as measured quantitatively by (how many hours the student spends studying) and qualitatively by (whether the student reviews and comprehends reading assignments or simply stares at the textbook and day dreams).

Furthermore, Astin's theory of student involvement associates the amount of quality of time students spend on learning with their success outcome. In alignment with Astin's theory, this study has shown that students' academic success is based on the amount of and quality of time they spend working on the learning goals of their corequisite course. Since Astin equates quantity and quality of involvement to academic success, it is possible to conclude that the corequisite program was effective as it was able to promote student involvement.

The findings reveal that student motivation was another facilitator of academic success in the corequisite course. This included both internal and external motivators as

well as the goals students set for them-selves in the corequisite course. A commitment to the goals influenced their behavior, level of participation and overall success in the corequisite course. The triangulated data revealed that the learning experience of the students were meaningful. These findings directly align with Tinto (1993) theory of student integration which highlights the important role of the classroom experience in DE students' academic success. Tinto emphasizes that the classroom experience should be viewed not only in relation to student learning but also as it relates to student success (Tinto, 1997). This is evident at the study site as the document review revealed that learning outcomes and expectations for the model aimed at providing needed support to students to foster successful course outcomes.

According to Tinto (1997, 2005) students will be successful in their courses if their learning experience is meaningful, engaging and relevant to their lives. Additionally, Tinto (1997) stipulates that sense of belonging and perceived value of curriculum are two major experiences that shape students motivation to stay in college, the third being self-efficacy. These three characteristics are also evident in the corequisite model at the study site, and it can be concluded that their presence contributed to the success of students. According to Adams (2020) in order to improve student success a corequisite course must: (i) effectively address the non-cognitive issues that may cause students to drop out (ii) the course should strengthen students attachment to the college, and their sense of belonging (iii) the course must encourage and support faculty in adopting more effective pedagogy. Again, this shows how Tinto's theory connects with the corequisite model.

Finally, the findings revealed that various supports across the college were meaningful to student success and allowed students to solve challenges they experienced.

This finding is related to both Astin and Tinto's theories. According to both theorists, students who engage with faculty, staff, student peers, and their coursework, are more likely to learn and achieve successful outcomes (Astin, 1999; Tinto, 1997). The analysis revealed that students behavior indicates a level of commitment that allows them to push past challenges they experienced in the course towards their goals. The level of involvement by a student is defined and identified by their behavior, therefore it is not what the student thinks or feels but more so what they do or how they behave (Astin,1999).

Research Sub-Question B

The second sub-question in this study sought to find out what factors impeded the academic success of students taking developmental education corequisite courses. The findings show that despite various challenges students faced they were also able to integrate academically into the college environment through their level of involvement in corequisite courses. Based on their level of involvement and success in their corequisite course they progressed to the subsequent semester and further integrated into the college environment. Nevertheless, both students and faculty shared challenges and provided suggestions for improvements.

In relation to challenges students faced the findings reveal similar entry characteristics as described by Tinto (1993). Students spoke about the challenges of balancing work and school life and feeling unprepared for college coursework. For example, Walter discussed his challenges of being out of school for more than 10 years while Juan spoke about his challenges with English as a second language. Tinto believes that the extent of a student entry characteristic will influence how the student integrates

into the college environment and may predict if the student decides to stay or leave the college. The findings of this research reveal that the attributes of the corequisite model allowed administrators at the study site to proactively plan for and support students with challenges. The findings also show that the approaches taken by faculty also contribute to students' decision to stay or leave the institution. For example, through support from his professor David was able to make up the coursework he missed while being out of school due to vaccination requirements. Additionally, Lily received encouragement from the librarian which motivated her to contact faculty when she needed help.

Overall, these findings show a synergy of theoretical applications which suggests that institutions should focus on the most important resource which may be student time (Astin, 1999) as well as consider students perspective and focus on how they can proactively influence students' decision to stay in college (Tinto, 1993). Both theorists suggests that involvement and integration by students leads to positive student outcomes while a lack of both leads to poor student outcomes and a negative impact on retention and graduation rates (Astin, 1999; Tinto, 1993). The findings of this research show positive student outcomes.

Relationship to Prior Research

Prior research in this study have focused on the challenges with DE in community colleges, factors that influence academic success of DE students, students experiences and perceptions of traditional DE courses, the history of the corequisite model, and the impact of the corequisite model on student success. The findings discussed in chapter 4 are consistent with prior research discussed in the literature review of this study. Previous studies have shown consistent challenges with administering developmental education

programs over the years and have cited a trend in poor academic outcomes for students enrolled in DE courses (Bettinger et al., 2013; Community College Research Center, 2014). Conversely, this research shows a difference in that trend as all the students were successful in their developmental education corequisite course and successfully progressed to the subsequent semester, therefore positively impacting the college's retention rate.

Several researchers have cited various factors that may influence the success of DE students including student ethnicity, participation in developmental writing course, and student completion status for developmental education (Crews & Argon, 2007; Fike & Fike, 2008; Kreysha, 2006). One study in particular (Fike & Fike, 2008) showed lower re-enrollment rates of DE students in subsequent semesters. The authors noted that the strongest positive correlate with re-enrollment was the successful completion of DE course and argued that the findings related to developmental education (DE) courses emphasize the importance of DE to student retention. The findings of this research also show re-enrollment as students successfully completed their DE courses in fall 2021 and returned in spring 2022. The impact of the corequisite course on their learning shows a desire to continue and complete their program at the study site.

Additionally, the findings of this research are consistent with research conducted by (Schnee, 2014) where students expressed their dissatisfaction with their DE placement and were concerned with the impact of remediation on their progression through the developmental sequence into college level courses. Similarly, majority of the students in this research after learning about their placement in DE, also thought about the extra time it would take to complete their program as well as the financial implications. As they

reflected on how much time and effort they committed to the course, the financial costs also motivated them to successfully complete the course. The literature reviewed show that DE placement and it's financial cost are two main concerns for not just DE students but also DE reformers (Bettinger et al., 2013; Pretlow and Washington, 2012).

Furthermore, unlike the students in Schnee's (2014) study, the findings of this research showed that students had a positive experience in their corequisite course whereby previous research on traditional DE programs such as learning communities showed where some students expressed negative sentiments and found those programs academically and socially limiting due to the stigma associated these programs (Schnee, 2014). The research findings revealed that an important characteristic of the corequisite model is that it facilitates the removal of stigma since the students take the supplemental course along with their college level course.

The corequisite model for the math and English courses at the study site models that of the Accelerated Learning Program at the Community College of Baltimore County (CCBC) where students register for a credit level course along with a DE section with additional hours of support. Based on this model (see Figure 1), there are seven characteristics that corequisite courses must have in order to improve student success (Adams 2020). In reviewing this model and analyzing data from this research, the findings suggest that the model was successfully replicated at the study site. The findings also indicated that the model was adapted to suit the student population at the study site.

Additionally, the review of documents on the implementation of the corequisite model at the study site shows that the college is looking at the "big picture" according to one professor, the administrators sought to ensure that there is support for students in

corequisite courses and that the course experience provides essential skills to facilitate student success in pathway courses. The DE students who participated in this study provided varying perspectives on how their experience aligned with the expectations of the learning outcomes of the course syllabi as well as the expectations of the guidance document.

In addition, the findings from this research are consistent with prior research that found that students enrolled in corequisite courses were more likely to complete their DE course requirement in a shorter time frame and also progress to other college level courses (Jaggar et al., 2015). The research findings suggest that support from faculty was seen as a major theme in facilitating the academic success of students. This discovery affirms existing research conducted by a Walter (2015) which suggests that faculty found teaching developmental education corequisite courses rewarding in terms of building relationship with students and providing individual feedback (Walker 2015). The two faculty participants in this research shared similar sentiments and both faculty participants saw the importance in learning and understanding students goals and meeting students' needs. Professor flowers sought to better understand the environment of students to ensure that the course content was relevant while professor Daisy sought out opportunities for individualize approach and valued sharing feedback instead of using rubrics.

The findings in this research also suggests that the faculty participants perceive that the corequisite model will change the pedagogical styles of DE faculty. The faculty participants were motivated that the model goes along with their teaching philosophy and has also encourage them to expand their thinking about teaching DE students. This aligns

with research from CCBC, which recommends that one of the seven characteristics of a successful corequisite model is that it must encourage effective pedagogy (Adams, 2020). This study also affirmed existing literature by revealing that faculty saw a shift in culture regarding how faculty view DE overall. To that end, it is possible that the corequisite model facilitated a move away from viewing students as deficient to focus more on providing supports to meet the needs of students.

An example can be seen through students such as David, who experienced challenges in the corequisite course, and was motivated mainly by the support from faculty. David shared that " it was the teacher who believed in me before I believed in myself." According to David, seeing what was happening due to the COVID-19 pandemic also motivated him to continue his studies to attain his dream in becoming a Nurse. Research conducted by Walker (2015) emphasizes the importance of support from faculty to DE students and an overall positive impact of corequisite courses on their pedagogy.

In addition, research conducted by Walter (2015) concludes that corequisite courses provided faculty insight on the non-cognitive issues and affective needs that impact student learning and teaching. The authors concluded that this may alter faculty perspectives on developmental education reform, effective pedagogical strategies, and student ability (Walker, 2015). The findings from this study confirms that the corequisite model altered faculty perspectives on teaching students assigned to DE.

An examination of the relevant literature related to developmental education and student success at community colleges shows that the success rates of the students taking corequisite courses are increasing with more students successfully completing their

corequisite course and progressing to other college level courses. This study also affirms that developmental education students taking corequisite courses report a positive course experience and higher success rate in their first college level course. Research conducted by Adams (2020) revealed that students were not necessarily failing courses but gave up before they got to a gate-way course. From this research it was evident that the corequisite model removed some of the challenges that were present in traditional developmental education courses. For example, having to take more than one sequence of developmental education courses before progressing to college level courses. Instead, the corequisite model provides an opportunity for students to take a college-level course alongside supplemental support which motivated students in a positive way.

Lastly, research from the Community College of Baltimore County (CCBC) shows that the corequisite model was designed to address challenges that students described in traditional developmental education courses. The model was developed out of research conducted at the college. Similarly, this research has implications for DE policies and practices at the study site where administrators can use the framework of this study and utilize the suggested improvements from both students and faculty to continue to make improvements regarding DE practices.

Limitations of the Study

The impetus for this study was to gain a deeper understanding of DE students experiences in corequisite courses and how their participation in the corequisite course promotes academic success. The use of a qualitative case study method which allowed for rigor through extensive data collection (Bogdan and Biklen, 2006) to yield deep and rich insights (Creswell & Poth, 2012) of students' experience in their corequisite course,

stemmed from the desire of the researcher to honor the student's voices. Additionally, though careful attention was given to the design and implementation of the study, there were some limitations beyond the researcher's control which should be considered when interpreting the findings of this study.

First, the researcher's role as a Student Success Coach at the study site may allow for bias. To that end, the use of strategies such as credibility, transferability, dependability and confirmability discussed in chapter 3 helped to mitigate this and increased trustworthiness of the findings and conclusion. Secondly, the study only included one community college and a sample size of eight students and two faculty members. Consequently, the findings of the study is limited to the participants involved. Albeit the findings of this study are not generalizable to other populations, they can help to inform studies at the discretion of the reader. The goal of qualitative research is not to generalize to the larger population but to gain a detailed understanding of an issue (Creswell & Poth, 2018).

Recommendations for Future Practice

The findings of this study showed that corequisite courses provide a positive environment for students which helps to motivate and support them to succeed in the corequisite course. The findings also show that largely due to the supports provided in the program especially that of faculty, tutors, peer leaders and resources provided in the content of the course, the corequisite model has positively influenced student learning leading to success in the course and a continued positive impact on their success in other courses and in subsequent semesters. Nevertheless, the findings show that though both

students and faculty participants had an overall positive experience with corequisite courses, both groups of participants felt that the model could be improved.

Additionally, the literature reviewed shows that there are seven characteristics that corequisite courses must have in order to improve student success (see Figure 1). These include: (i) the model must effectively address the non-cognitive issues that causes many students to drop out; (ii) the model must confirm to students that they are college material and that they belong in college; (iii) the model must shorten the pipeline through which students must pass in order to pass the gateway course; (iv) the stigma students feel when identified as needing extra support must be mitigated; (v) the model should strengthen students' attachment to the college, and their sense of belonging; (vi) the model must encourage and support faculty in adopting more effective pedagogy; and (vii) the model must support students as they struggle with challenges in the gateway course (Adams, 2020).

In light of these seven characteristics, the findings from the research showed that the college needs to provide additional support for characteristics v, vi, and vii. As such, based on the findings and conclusion of this research, it is recommended that if corequisite practices at the study site are to have a lasting impact, attention must be given to needed resources for the program, opportunities for engagement between students and faculty, and encouragement of effective pedagogical practices.

Furthermore, all students have the ability to succeed under the right conditions, therefore it is the responsibility of educators to provide those conditions (Astin 1999, Tinto, 1993). As such, in order to promote continued success in corequisite courses, community colleges need to consider how they facilitate supportive environments for

students. Findings from this study have provided several suggestions made by students and faculty that administrators at the study site can consider to ensure the continued success of their DE student population, that includes additional funding for materials used in corequisite courses

Additionally, the current study found that both student and faculty participants valued opportunities for one-on-one engagement and students valued an overall relationship with their professors. Therefore, in considering future practice at the study site, another recommendation is to develop a faculty advising mechanism to support students in corequisite courses. Research shows that it is important to build stronger support and connection between teaching and advising in remediation efforts and scholars further suggest that in teaching and advising, both the instructor and advisor function as a facilitator of learning (Ryan, 1992). Additionally, researchers have explored the parallels between teaching and advising with an encouragement to faculty to consider advising as an extension of their roles (Ryan, 1992).

Similar to the study site, several community colleges continue to face the challenge of a large incoming population of students with remediation class needs in reading, writing and mathematics. The corequisite model set forth by the central administration of the study site capitalizes on the opportunity to impact remediation outcomes by holistically supporting students enrolled in corequisite courses. Scholars emphasize that success in these courses is a critical predictor of continued persistence and retention of students (Fike & Fike, 2008). The findings from this research shows that students seek out support services to navigate challenges they encounter in their corequisite course, therefore reducing opportunities to drop out. Additional supports students value includes

tutors, peer learning, and relevant resources in their course content. As such, a final recommendation is a Tag-Team advising mechanism between faculty and other support services across the campus which may provide a holistic advising approach and strengthen the college-wide outreach and support for under-prepared students. This recommendation underscores the need to focus on equity instead of equality regarding DE students.

Lastly, as the research on the effectiveness of the corequisite model is mixed and as decisions and policies continue to change surrounding developmental education, the findings from this research can help to better inform other policy changes, first at the institutional level and also across the university system. That is, the experiences documented by students and faculty can help administrators at the study site gain a better understanding of what factors promote or impede academic success within the corequisite model and what is needed to further support students. Additionally, as the study site is a part of a university-wide system with other community colleges with similar setting, administrators can conduct a university-wide program evaluation. This could be conducted using a focus group of students as the study revealed a sense of collective knowledge from the students as they shared together. Program evaluation would allow each college to monitor the impact of the corequisite model on DE students and provide appropriate support services where needed.

Recommendations for Future Research

The findings of this research suggest that there are opportunities to extend the research. One recommendation is to replicate the methodology and protocols from this study with students across different community colleges with similar setting. This would

facilitate a growing body of qualitative research on the topic. A second recommendation for research would be to conduct a longitudinal study of participants in corequisite courses to determine attrition and persistence of students. A third recommendation would be to include in the research other support staff such as student advisors. These staff members also work closely with students and would be able to provide a different lens in understanding DE students' experiences in corequisite courses and their integration through such connections. The fourth recommendation considers the findings that the corequisite model created a shift in how faculty view and teach developmental education, this was corroborated by research conducted by Walker (2015). As such, institutions can research best practices for teaching corequisite courses and provide training across their campuses. Lastly, the findings of this research showed that students were more academically integrated than socially integrated as they shared their experience of online platforms, COVID-19 restrictions and limited social interactions. Therefore, the fifth and final recommendation is to conduct further research on the corequisite model to identify if students experience social integration, especially as there are now changes in COVID-19 restrictions.

Conclusion

The findings in this study revealed developmental education students experiences in corequisite courses, specifically the factors that facilitated and impeded academic success in their course. In addition, the findings have significant implications for DE policy and practice at the study site, particularly theme eight which discussed the suggestions for improvements. The suggestions for improvements underscore the purpose

of this study which was to gather information directly from corequisite participants based on their own experiences. The findings showed that students valued the opportunity the share their thoughts both individually and collectively in their focus group. As suggested by students, educators have to not look at students as statistics but "show students that we want them to succeed", "not treat them with equality but with equity" and "understand what they need to succeed in their classes." This collective knowledge provides an opportunity for educators and policy makers to provide an opportunity for student perspectives as a part of the conversation in DE policy and decision making.

This study has provided practical evidence on the importance of creating positive environments to support the learning experiences of students enrolled in corequisite courses. The findings showed that positive course experience was largely fueled by supports from faculty and the college community and has been shown to be critical in promoting the academic success of developmental education students. This underscores the theoretical concepts that student learning and retention are both influenced by curriculum structures and pedagogy (Tinto, 1997) and the idea that institutional policy and practice influences the time and amount of energy students devote to their coursework (Astin, 1999).

The findings suggested that the corequisite model implemented at the study site was successful in eliminating challenges students experienced in prior developmental education models. For example, it reduced the number of exit points for students which has led to an increase in the number of students who successfully complete their corequisite course and progressing to the subsequent semester. Their progression was largely facilitated by supports received from their professors. Vital to the continued

success of the corequisite practice are recommendations based on suggestions made by students and faculty to prioritize: needed resources for the program, opportunities for engagement between students and faculty, and encouragement of effective pedagogical practices.

In conclusion, the research literature on the experiences of students in corequisite courses is limited. The existing gap in research does not qualitatively examine the academic success of students but instead highlight the success rates of the corequisite model across different colleges. In an effort to promote continued success of students enrolled in corequisite courses, educators must utilize opportunities through research to illuminate student voices as their perceptions and suggestions are important to DE policy and practice. The inclusion of developmental education students' experiences in corequisite courses through this research, addresses the gap in the existing research literature.

APPENDIX A IRB APPROVAL

Federal Wide Assurance: FWA00009066

Feb 8, 2022 2:06:58 PM EST

PI: Sheryce Woolery
Dept: Ed Admin & Instruc Leadership

Re: Modification - IRB-FY2022-184 *Students' Experiences: An Examination of the Academic Success of Developmental Education Students in Corequisite Courses*

Dear Sheryce Woolery:

The St John's University Institutional Review Board has rendered the decision below for *Students' Experiences: An Examination of the Academic Success of Developmental Education Students in Corequisite Courses*.

Decision: Approved

Sincerely,

Raymond DiGiuseppe, PhD, ABPP
Chair, Institutional Review Board
Professor of Psychology

Marie Nitopi, Ed.D.
IRB Coordinator

APPENDIX B STUDENT INFORMED CONSENT LETTER

ST. JOHN'S UNIVERSITY

Invitation and consent to participate in a research study (Interview and Focus Group)

Dear student participant:

You are invited to take part in a research study exploring students' experiences in a developmental education requirement course. The study will provide an understanding of the factors that promote or impede the academic success of students enrolled in a corequisite model. I will be conducting this study as part of my doctoral dissertation for the Department of Administrative and Instructional Leadership at St. John's University.

Procedures: If you agree to participate in the study, you will be asked complete a brief questionnaire (attached), as well as take part in an interview and a focus group. In this process you will be asked to describe your experiences in your corequisite course. During your interview and focus group session, the researcher will take hand written notes as well as use an audio record; you may review these audio records and require that all or any portion of the recordings be destroyed. The interview and focus group will each take up to 45 minutes to an hour. Due to Covid-19 restrictions, the interview will take place virtually using the Zoom platform.

Possible risks or benefits: There are no known risks associated with your participation in this research beyond those of everyday life. Although you will receive no direct benefits, this research may help the researcher better understand processes that support students with developmental education needs.

Confidentiality: Participation in this study is voluntary and your identity and research information will be confidential and kept in a secured location. Pseudonyms will be used during transcription for all proper names in order to maintain confidentiality and anonymity. You may refuse to participate or withdraw at any time without penalty. For the interview and focus group, you have the right to skip or not answer any questions you prefer not to answer.

If you have questions: I am most grateful for your participation in this study. If you have any additional questions or would like a summary of the results, you may contact me at (347-761-7104 or at sheryce.woolery18@my.stjohns.edu). You can also contact the chairperson of the Institutional Review Board at St. John's University, Dr. Raymond DiGiuseppe (718-990-1440 or at digiuser@stjohns.edu). My dissertation mentor Rosalba C. Del Vecchio can also be reached by email at delveccr@stjohns.edu.

Consent: My signature below indicates that I have read and understood the information above and have volunteered to participate in the study.

Signature of participant _____ **Date:** _____

Signature of Researcher: _____ **Date:** _____

APPENDIX C STUDENT PRE-STUDY QUESTIONNAIRE

Introduction: Thank you for agreeing to participate in this study exploring students' experiences in a developmental education requirement course. The study will provide an understanding of the factors that promote or impede the academic success of students enrolled in a corequisite model.

Instructions: Please take a few minutes to complete the following information and return with your consent form.

1. Name: _____

2. Gender: _____ 3. Race/Ethnicity: _____

4. Major: _____

5. Fall 2021 Enrollment Status (Full-time/Part-time): _____

6. List all Developmental Requirement courses taken in Fall 2021:

_____

_____

7. List all courses currently enrolled in:

_____

_____

8. Fall 2021 Employment status: (Fulltime/part-time) _____ Unemployed ____

Thank you for taking the time to complete this information. Please submit along with your consent form.

APPENDIX D FACULTY INFORMED CONSENT LETTER

ST. JOHN'S UNIVERSITY

Invitation to participate in a research study (Interview)

Dear faculty/Administrator:

You are invited to take part in a research study exploring students' experience in a developmental education requirement course. The study will provide an understanding of the factors that promote or impede the academic success of students enrolled in a corequisite model. I will be conducting this study as part of my doctoral dissertation for the Department of Administrative and Instructional Leadership at St. John's University.

Procedures: If you agree to participate in the study, you will be asked complete a brief questionnaire as well as take part in an interview. In this process you will be asked to describe your role in supporting DE students and share your perception of the corequisite model. During your interview, the researcher will take hand written notes as well as use an audio record; you may review these audio records and require that all or any portion of the recordings be destroyed. The interview will take up to 45 minutes to an hour. Due to Covid-19 restrictions, the interview will take place virtually using Zoom platform.

Possible risks or benefits: There are no known risks associated with your participation in this research beyond those of everyday life. Although you will receive no direct benefits, this research may help the researcher better understand processes that support students with developmental education needs.

Confidentiality: Participation in this study is voluntary and your identity and research information will be confidential and kept in a secured location. Pseudonyms will be used during transcription for all proper names in order to maintain confidentiality and anonymity. You may refuse to participate or withdraw at any time without penalty. For the interview, you have the right to skip or not answer any questions you prefer not to answer.

If you have questions: I am most grateful for your participation in this study. If you have any additional questions or would like a summary of the results, you may contact me at (347-761-7104 or at sheryce.woolery18@my.stjohns.edu). You can also contact the chairperson of the Institutional Review Board at St. John's University, Dr. Raymond DiGiuseppe (718-990-1440 or at digiuser@stjohns.edu). My dissertation mentor Rosalba C. Del Vecchio can also be reached by email at delveccr@stjohns.edu.

Consent: My signature below indicates that I have read and understood the information above and have volunteered to participate in the study.

Signature of participant _____ **Date:** _____

Signature of Researcher: _____ **Date:** _____

APPENDIX E FACULTY PRE-STUDYQUESTIONNAIRE

Introduction: Thank you for agreeing to participate in this study regarding developmental education students' experience in corequisite courses. The study will provide an understanding of the factors that promote or impede the academic success of students enrolled in a corequisite model.

Instructions: Please take a few minutes to complete the following information and return with your consent form.

1. Name: _____

2. Gender: _____ 3. Race/Ethnicity: _____

4. Number of years at this college: _____

5. FA 21 Status: Full-time/Part-time status: _____

6. Courses taught in FA 21:

   _____

   _____

Thank you for taking the time to complete this information. Please submit along with your consent form.

APPENDIX F STUDENT INTERVIEW PROTOCOL

Introduction: Thank you for taking the time to participate in this interview regarding students' experiences in developmental education requirement courses. Your participation in this interview supports my research in providing an understanding on how participation in the corequisite model, promotes the academic success of students placed in developmental education. The goal of this interview is to explore your experience in your developmental education requirement course, taken in the fall 2021 semester. If you decide at any time during the interview that you would no longer like to participate, please let me know.

Overview: During your interview I will take hand written notes as well as use an audio recording to accurately capture what takes place. The discussion and transcript from the interview are completely confidential and your name will not be shared in the findings reported. Do you have any questions before we begin?

Interview questions:

1. Tell me about your current studies at this college?
2. Describe your experience in your developmental education requirement course?
3. What academic goals did you have in the course?
4. What steps did you take to ensure that you understood what was taught during class?
5. What steps did you take to complete your coursework and assignments?
6. What challenges did you experience in the course and how did you overcome them?
7. What are some of the things that were helpful to you in the course?
8. What are some of the things that you believe negatively affected your success in the course?
9. How do you think the developmental education requirement course could be improved?
10. How has the course prepared you to continue with your courses next semester?
11. Is there anything that I did not ask that you would like to share about your experience?

Closing: Thank you for taking the time to share your experience with me. The thoughts and experiences you shared will be of great value in helping me understand how students experience the corequisite model.

APPENDIX G FACULTY INTERVIEW PROTOCOL

Introduction: Thank you for taking the time to participate in this interview regarding students' experiences in developmental education requirement courses. Your participation in this interview supports my research in providing an understanding on how participation in the corequisite model, promotes the academic success of students placed in developmental education. The goal of this interview is to explore your perceptions of the corequisite model and how the model facilitates or impedes developmental education students' academic success. If you decide at any time during the interview that you would no longer like to participate, please let me know.

Overview: During your interview I will take hand written notes as well as use an audio recording to accurately capture what takes place. The discussion and transcript from the interview are completely confidential and your name will not be shared in the findings reported. Do you have any questions before we begin?

Interview questions:

1. The corequisite model was recently implemented at the college, how do you feel about this policy and the corequisite model?

2. How is the corequisite course structured?

3. How do you define academic success in the corequisite course?

4. What are some strategies you use to encourage student involvement and integration in the corequisite course?

5. What aspects of the corequisite course do you believe facilitate the academic success of students?

6. What aspects of the corequisite course do you believe impede the academic success of students?

7. What are some strategies you and or the institution use to ensure successful completion of the corequisite course?

8. In terms of academic success, what has been the main difference between the traditional prerequisite model and the corequisite model?

9. Please describe how you would improve the corequisite course?

10. What impact do you believe the corequisite model will make on developmental education practices at the college?

11. Is there anything else you would like to add that has not been covered?

Closing: Thank you for taking the time to speak with me. The thoughts you shared will be of great value in helping me explore and understand how students experience the corequisite model and the impact it has on their academic success.

APPENDIX H FOCUS GROUP PROTOCOL

Introduction: Thank you for taking the time to participate in this focus group. I am here to talk with you today about your experience in your developmental education requirement course taken during the fall 2021 semester. It is important for me to understand the types of support provided to you during the course and how you feel the course contributed to your academic success. For the next hour, I would like to hear from each of you about your experience in the course.

Overview: During the focus group I will take hand written notes as well as use an audio recording to accurately capture what takes place. The discussion and transcript from the focus group are completely confidential and your name will not be shared in the findings reported. Do you have any questions before we begin?

1. Describe how you felt when you learned that you were required to take a developmental education requirement course?

2. If I say the word support, what comes to mind? Explain that?

3. Describe the types of support you had or did not have in your developmental education requirement course?

4. What college services did you use for the course?

5. What motivated you to continue in and complete the course?

6. Describe the effect that participation in the developmental requirement course has had on your decision to enroll in spring 2022 and upcoming semesters?

7. If you were on the planning committee for developmental education requirement courses, what would you ensure was in place to help developmental education students be successful?

Closing: Thank you for taking the time to share about your experience in your developmental education requirement course. Your feedback will help to support my study and provide valuable information on how the course facilitates the academic success of developmental education students.

APPENDIX I DOCUMENT REVIEW PROTOCOL

1. The researcher will gather all relevant documents for analysis.

Name of Document	Retrieved from	Developed by	Outcome
Guidance for the corequisite model	Internet search	The Central Administration for the study site	Elements for corequisite implementation
Math course syllabus	Faculty participant	Faculty	Course details and schedule
English course syllabus	Faculty participant	Faculty	Course details and schedule

2. Print documents for manual review and coding.

3. Conduct data analysis.

APPENDIX J ALIGNMENT TABLE

Research Questions - Interview Questions - Related Literature - Theory

Research Question	Interview Questions (Student)	Interview Questions (Faculty)	Related Literature	Theoretical Construct
1. How does participation in the corequisite model promote the academic success of students placed in developmental education in a community college in New York State (NYS)?	Describe your experience in your developmental education requirement course? What academic goals did you have in the course? What steps did you take to ensure that you understood what was taught during class? What steps did you take to complete your coursework and assignments?	The corequisite model was recently implemented at the college, how do you feel about this policy and the corequisite model? How is the corequisite course structured? How do you define academic success in the corequisite course? In terms of academic success, what has been the main difference between the traditional prerequisite model and the corequisite model? What impact do you believe the corequisite model will make on	Seven characteristics of a successful corequisite model. At-risk characteristics of students Student perception of DE placement Influence of faculty and peer relationships Advantages of the corequisite model: reduce exit points, provides needed support, facilitates retention and graduation	Student Involvement: success is influenced by the amount of time and energy students apply to learning. Students are more likely to complete courses if they are academically and socially integrated Student Involvement: the effectiveness of an educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement

		developmental education practices at the college?		
A. What are the factors that facilitate the academic success of students taking developmental education corequisite courses?	What are some of the things that were helpful to you in the course? How has the course prepared you to continue with your courses next semester?	What are some strategies you use to encourage student involvement and integration in the corequisite course? What aspects of the corequisite model do you believe facilitate the academic success of students? What are some strategies you and or the institution use to ensure successful completion of the corequisite course? Please describe how you would improve the corequisite course?	Seven characteristics of a successful corequisite model Influence of faculty and peer relationships Factors that influence academic success Impact of the corequisite model	Student Involvement: the effectiveness of an educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement. Student Entry characteristics Student Integration: (i) self-efficacy, (ii) sense of belonging, (iii) perceived value of curriculum Student behavior and perception
B. What are the factors that impede the academic success of students taking	What challenges did you experience in the course and how did you overcome them?	What aspects of the corequisite model do you believe impede the academic	Seven characteristics of a successful corequisite model	Student Integration: (i) self-efficacy, (ii) sense of belonging, (iii) perceived

developmental education corequisite courses?	What are some of the things that you believe negatively affected your success in the course? How do you think the developmental education requirement course could be improved?	success of students?	Student perception of DE placement Factors that influence academic success	value of curriculum Student entry characteristics Student behavior and perception

APPENDIX K FOCUS AREA AND INTERVIEW QUESTION ALIGNMENT

Focus Area	Interview Questions (Student)	Interview Questions (Faculty)
Participant Introduction	What is your name and tell me about your current studies at this college? What academic goals did you have in your DE requirement course?	What is your name and your role of at this college? How do you define academic success in the corequisite course?
Theoretical Framework (Student Involvement and Student Integration)	What steps did you take to ensure that you understood what was taught during your class? What steps did you take to complete your coursework/assignments? How did the corequisite course provide a supportive environment for you?	What are some strategies you use to encourage student involvement and integration in the corequisite course?
Experience with the Corequisite Model	Describe your experience in your Developmental Education (DE) requirement course? What challenges did you experience in the course and how did you overcome them? What are some of the things that were helpful to you in the course? What are some of the things that you believe negatively affected your success in the course?	The corequisite model was recently implemented at the college, how do you feel about this policy and the corequisite model? If you could use three words to describe the corequisite model, what words would you use? What aspects of the corequisite model do you believe facilitate the academic success of students? What aspects of the corequisite model do

	What do you think could have helped you to be more successful in the course? How has the course prepared you to continue with your courses next semester?	you believe impede the academic success of students?
DE Policy and Practice		In terms of academic success, what has been the main difference between the traditional prerequisite model and the corequisite model? Please describe how you would improve the corequisite model? What impact do you believe the corequisite model will make on developmental education practices at the college?

APPENDIX L FIRST CYCLE IN VIVO CODING

Student Protocol Question # 2

Student	Response	In Vivo Coding
Blossom	I would say I had a **good experience** because **I learned new things**. **I learned a lot of history** in that class. And so I think it was a good experience. **English 110**, we had to do **a lot of writing of different things**, different topics. **English 10 was less dense** than English 110, English 110 was more, you know, dense, more info, you had more to build more structure of what you're doing.	"Good experience" "I learned new things" I learned a lot of history" "English 110 a lot of writing of different things" "English 10 was less dense"
Violet	There was some things that I never learned. But **thanks to that class, I got to experience new things** and learn new stuff also **the class was helpful. The class was online** and learn new stuff. So, the **hardest thing for me was the Venn diagram**, that was something that we learn that was kind of hard for me. But other than that, the other ones was okay He made us **do a presentation** for everybody, like choose some assignments and like, it's like, um, do a presentation, but at the same time, **teach the other students** like you was like the teacher. Okay, so that was a **nice**	"Thanks to that class I got to experience new things" "The class was helpful" "The class was online" "Hardest thing for me was Venn Diagram" "Do presentation" "Teach the other students" "Nice experience"

	experience, though. Because I don't think it was something I ever did before.	
Walter	Okay, my experience Is **It was tough**. Because I've been **out of school for 13 years**. And this is the **first time opportunity to go to school in America.** Oh, I'm from haiti when I was in school I speak French and Creole, the **English is my third language** It was really tough for me. and that, you know, I did and when my whole family you know, that's what I'm saying **was a bad experience**. You know, it was it was a tough class, you know? Back I speak English. Probably, if I speak somebody can understand me. I call it the difference between the English academic Oh, classic English. Oh, you know, all English people speak on the street. This is two different thing, you know. So yeah, it was it was kind of tough. And, but **I just managed, it wasn't easy**.	"It was tough" "Out of school for 13 years" "First time opportunity to go to school in America" "English is my third language" "Was a bad experience" "I just managed" "It wasn't easy"
David	**I loved English** 110 I always strong in English for because I was supposed to get an A but because of some immunization foolishness **they kicked me out of school for like, nearly two months**. So when I got there, **I was so behind. I ended up with a C** and **it messed up my average.** So and the	"I loved English" "They kicked me out of school for like nearly two months" I was so behind" I ended up with a C" " It Messed up my average"

	school never did anything to help me on that. I think that's why I'm having problems with the school. I think I'm gonna change a school a little bit. I think I'm gonna do that. Because no, what i have been through. **English 10** was, **it was good.** It was actually good. **It was fun**. I was enjoying it a little bit too much. What I loved it, all and all that I really did enjoy it. English 10 was mostly about speaking and **I had a great, great understanding teacher**, I think that **teacher made me not give up** and **made me fight for fight to stay in school** she never opt in. So I had a great time in English because **she saw potential in me.**	"School never did anything to helped me on that" "English 10, It was good" "It was fun" "I had a great, great understanding teacher" "Teacher made me not give up" “Made me fight to stay in school” "She saw potential in me"
Juan	My experience in that class was **very eye opening**, because I I never studied English, not even in a private institution. This is that was my **first English class in in college**. And **I learned how to write an essay** how to how do we create **how to think critically** about some topics? The correct outline for introductions, **how to connect the introduction** and the main the main points, **how to write a conclusion** one thing that **I was a little bit upset** is them the class was not about how to speak English but but how to write it and I	"Very eye opening" "First English class in college" "I learned how to write an essay" "how to think critically" "'How to connect the introduction" "How to write a conclusion" "I was a little bit upset" "I can read english" "I can write english"

	know as you can tell, I my English level is not that that much i i know English **I can read the English I can write** but **my speaking is a little bit slow**. I overthink that I over think a lot, I need to translate everything in my mind before I talk. And that's that's something I that's something I'm, I'm having I'm having problems with in my recent class with public speaking. I need to talk I need to talk about topics from my mind I need to learn those. And in the writing. I'm great because of English 100. Even in that same in the same semester, I was taking politic class, and I was the number one on my class because the English 100 was helping me with Writing. And in my politics class I needed I was able to write editorials. The professor even took me as an example of how to write one. And it was. It was it was because the English class and I also was able to talk to the professor and say, Thank you for that teaching because **he was really good with us.**	"My speaking is a little bit slow" "In the beginning it was a little bit overwhelming" "He was really good with us"
Dahalia	**It was through zoom**. Um, **it was pretty interesting**. There was **only Saturdays and Sundays**, we would have math 100 SI. And then we would also have another meeting with I want to	"It was through zoom" "It was pretty interesting" "Only Saturdays and Sundays" "Second teacher"

	say like, I guess the **second teacher** to kind of **give us some feedback** on what we learned the week prior to **help us study** through for tests and midterms and finals. Um, it was just lesson plan behind lesson plan and stuff. **it was very informative**. But um, he had us **have like, a group chat with everyone in the class** to see if anyone had, like, any questions to let us know, when we had our two o'clock meetings. To **recap on what we learned the week before,** you would record all lessons for those who couldn't make it. And that was about oh, and have us like, participate in problems? Just so. I think **it was very helpful**, especially since we only had it through zoom. They were very, very helpful.	"Give us feedback" "Help us study" "It was very informative" "have like a group chat with everyone in the class" "recap on what we learned week before" "It was very helpful"
Richard	It was just like, **math was a more fun atmosphere**. Where he was very technical as well. He wrote things down. **We did a lot of writing a lot of taking down notes.** And I **thought that was good.** As far as The **English class was online**. So I don't, we did too much of taking notes or anything like that. But the assignments were. For the English class more intricate, they were more in depth. For the math class, we didn't, we	"Math was a more fun atmosphere" "We did a lot of writing" "a lot of taking down notes" "I though that was good" "English class was online" "A lot of journal entries" "math class was in person" "In person experience was good"

	didn't really get much homework because we did a lot of writing and taking notes in class. Our homework will be basically study what we learn in class, as far as the English class, we did get **a lot of journal entries.** So we will write on anything we were experienced throughout the week, whether it was work, whether it was things that we did in class, and things like that. The online experience was, I think the **in person experience was good**. I think that I think it was good that you can write notes, it's good that you could take down, you know, Nick bits from the professor's point of view, even though the **online class wasn't bad either, the online class,** I think she was prepared**. I think she was very prepared.** And everything was, everything was, you know, in this folder in this place, you know, you can find everything clearly. And next, in a section of the like, the homework and what signs you had two essays and things like that. And that was clear. I do think it was a lot. You know, **she put a lot of things into one section**, but then she could spread it out a little bit more.	"Online class wasn't bad either" "The online class I think she was very prepared" "She put a lot of things into one section
Lily	**It was fun**. **I love that class**. And it was fun. And **I love the feedback**. You	"It was fun" "I love that class"

	know, **I love the encouragement**. **I love the enthusiasm of the professor**. Because one thing was student when you want a student to be really interested in in your class, you have to be interesting to if you're not interested in is boring to the student, but he you can see his I'm talking about myself, I don't know about the others, **you can see the passion in him** that **he loves his job**. And he's good in it, he gets excited when you get something right. And that kind of like encourage you in it **he gives you a second chance to improve yourself**. Like you could do something and **he will give you feedback**. I see you're also so so but you could upgrade your, grade if you improve on so send me your I'm giving you the feedback. We you know where it's weak where your essay is weak. If you can make it strong. I will give you higher grade, which **was very encouraging**. Yeah. Okay. Great, **interesting class**.	"I love the feedback "I love the encouragement" "I love the enthusiasm of the professor" "He love his job" "You can see the passion in him" "He gives you a second chance to improve yourself" "He will give you feedback" "Was very encouraging" "Interesting Class"

APPENDIX M CATEGORIES OF BELONGING

Student Protocol Question # 2

I Positive Experience

A. "The class was helpful"
B. "Nice experience"
C. "It was good"
D. "It was fun"
E. "Very eye opening"
F. "It was pretty interesting"
G. "It was very informative"
H. "It was very helpful"
I. "Math was a more fun atmosphere"
J. "In person experience was good"
K. "Online class was not bad either"
L "Very encouraging"
M "Interesting Class"

II New Information and Learning

A. "Thank to that class I learned new things"
B. "I learned a lot of history"
C. "Do presentation"
D. "I learned how to write an essay"
E. "I learned how to think critically"
F. "How to connect introductions"
G. "How to write a conclusion"
H. "We did a lot of writing"
I. "A lot of taking down notes"
J. "A lot of journal entries"

III Components of the Course

A. "It was through zoom"
B. "Only Saturdays and Sundays"
C. "Second teacher"
D. "Give us feedback"
E. "Help us study"
F. "Have a group chat with everyone"
G. "Recap what we learned week before"
H. "I thought that was good"

IV Challenges

A. "It was tough"
B. "Was a bad experience"
C. "It wasn't easy"

D. "They kicked me out for nearly two months"
E. “I was behind"
F. “I ended up with a C"
G. " Messed up my average"
H. "School never helped me on that"
I. "Hardest thing was Venn Diagram"
J. "Hardest thing was Venn Diagram"
K. "I was a little bit upset"
L. "In the beginning it was a little bit overwhelming"

V Student Characteristics

A. "I managed"
B. "Out of school for 13 years"
C. "First time go to school in America"
D. "English is my third language"
E. "First English class in college"
F. "I can read English"
G. "I can write English"

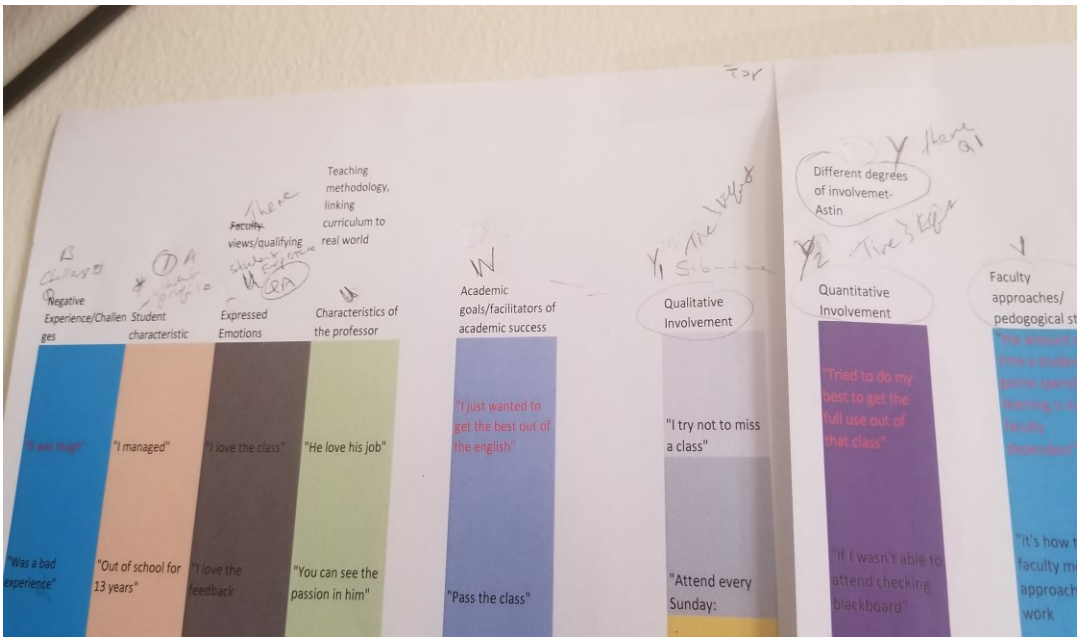
VI Expressed Emotions

A. "I love the class"
B. "I love the feedback
C. "I love the encouragement"
D. "I love the enthusiasm of the professor"
E. "I loved English"

VII Characteristic of the Professors

A. "He love his job"
B. "You can see the passion in him"
C. "He gives you a second chance to improve yourself"
D. "He gives you feedback"
E. "Online class she was very prepared"
F. "She put a lot of things into one section
G. "He was really good"
H. "I had an understanding teacher"
I. "Teacher made me not give up"
J. "She saw my potential"

APPENDIX N PICTURE OF MANUAL CODING PROCESS



APPENDIX O MAJOR AREAS USED TO FOCUS CODING DECISIONS

Research Questions	Interview Protocols	Purpose of the Study	Research Concerns	Questions I ask Myself
1. How does participation in the corequisite model promote the academic success of students placed in developmental education in a community college in New York State (NYS)?	Student Interview Protocol Faculty Interview Protocol Focus Group Interview Protocol Alignment Table 4 and 5	To explore DE students' experience in a corequisite model, at a community college in New York State.	Activities students engaged in. Knowledge and skills they developed.	What intrigued me? What is the participant talking about? What does the data tell me about the research question?
A. What are the factors that facilitate the academic success of students taking developmental education corequisite courses?	Student Interview Protocol Faculty Interview Protocol Focus Group Interview Protocol Alignment Table 4 and 5		Supports that enabled academic success. Knowledge, skills, behavior students carried with them into other courses/subsequent semester.	What stands out?
B. What are the factors that impede the academic success of students taking developmental education	Student Interview Protocol Faculty Interview Protocol		Challenges students faced. Methods used to overcome challenges. Areas identified by students and	What surprised me? What disturbed me?

corequisite courses?	Focus Group Interview Protocol Alignment table 4 and 5.		faculty that need improvements.	

APPENDIX P MATH COURSE SYLLABUS

[redacted]

DEPARTMENT OF MATHEMATICS

MAT 100SI	**Introduction to College Mathematics I**
CREDIT HOURS:	**3.0**
EQUATED HOURS:	**6.0**
CLASS HOURS:	**6.0**
PREREQUISTES:	**Placement via the CUNY's Proficiency Index for Elementary Algebra**
RECOMMENDED TEXTS:	**Angel, Abbott, Runde, A Survey of Mathematics with Applications (2012), 9th Edition. ISBN13:9780321759665**
DESCRIPTION:	**This course provides skills in finite mathematics. Topics: set theory, symbolic logic, systems of numeration, and the metric system.**
EXAMINATIONS:	**A minimum of two partial tests (suggested 15% each) a midterm test (suggested 20%) a Math Project (suggested 10%) and a comprehensive departmental final examination (suggested 40%).**
GRADES:	**A, A^-, B^+, B, B^-, C^+, C, D, I, F.**

LEARNING OUTCOMES FOR MAT 100 SI:

The main aim of student learning outcome is to understand the following Mathematical concepts. In order to reach these understanding, students will:

1. Interpret and draw appropriate inferences from quantitative and qualitative representations, such as Venn diagrams, truth tables etc.
2. Use numerical and statistical methods as well techniques from probabilities and number theory to draw accurate conclusions and solve mathematical problems.
3. Represent quantitative problems expressed in natural language in a suitable mathematical format such as use of Venn diagrams, logical statements, measure of center, spread or variation, system of numeration in base 10 and operation of bases other than 10.
4. Effectively communicate quantitative analysis or solutions to mathematical problems in written form such as set theory notation, Venn diagrams, logic statements, DeMorgan's law of sets and DeMorgan's law of logic.
5. Evaluate solutions to problems for reasonableness. Recognize patterns and use these patterns for predicting the general term in a sequence.
6. Apply mathematical methods to problems in other fields of study including Economic, Computer Science, Statistics, Modular number theory and Probabilities.

Pathways Learning Outcomes: Mathematical and Quantitative Reasoning:

MAT100SI will meet all the following Pathways Learning Outcomes from "Mathematical and Quantitative Reasoning". A student will:

1. Interpret and draw appropriate inferences from quantitative representations, such as formulas, graphs, or tables.
2. Use algebraic, numerical, graphical, or statistical methods to draw accurate conclusions and solve mathematical problems
3. Represent quantitative problems expressed in natural language in a suitable mathematical format.
4. Effectively communicate quantitative analysis or solutions to mathematical problems in written or oral form.
5. Evaluate solutions to problems for reasonableness using a variety of means, including informed estimation.
6. Apply mathematical methods to problems in other fields of study.

LEARNING OUTCOMES ASSESSMENT TOOLS:

SLO #1: Interpret and draw appropriate inferences from quantitative and qualitative representations, such as Venn diagrams, truth tables etc.

- In unit test 1, students will analyze and interpret Venn diagrams drawing appropriate inferences from these diagrams to solve problems.

- In unit test 2, students will analyze and interpret truth tables drawing appropriate inferences to determine the truth of given statement. (The comprehensive final exam will also evaluate this learning objective)

SLO #2: Use numerical and statistical methods as well techniques from probabilities and number theory to draw accurate conclusions and solve mathematical problems.

- Every unit test and the final require students to use numerical methods to reach a conclusion and in so doing solve a given problem.
- Notable examples: Use numerical methods to solve problems requiring converting between different numeral systems such as Roman Numerals to standard notation, convert between base 2 as well as other base systems to the standard base 10 system and vice versa. (unit tests 3&4)
- Use techniques and methods from probabilities (unit 3 test) to draw accurate conclusions about how likely an event is to occur and use these conclusions to solve mathematical problems concerning the probability of an event(s).

SLO #3: Represent quantitative problems expressed in natural language in a suitable mathematical format such as use of Venn diagrams, logical statements, measure of center, spread or variation, system of numeration in base 10 and operation of bases other than 10.

- In unit test 1, students must translate given quantitative statements expressed in natural language and accurately represent these in terms of Venn diagrams.
- In unit test 2, students must translate given logical statements expressed in natural language and accurately represent these in a truth table format.

SLO #4: Effectively communicate quantitative analysis or solutions to mathematical problems in written form such as set theory notation, Venn diagrams, logic statements, DeMorgan's law of sets and DeMorgan's law of logic.

- Every unit test and the final require students to apply analysis of quantities and then communicate the results or conclusion in written form to solve mathematical problems.
- Examples: In unit test 1, set theory will be used to analyze quantities and find solutions to mathematical problems. In unit test 2, logic statements and truth tables will be used to determine the truth value of a given statement. In unit test 3, methods of probability will be used to determine how likely an event is to occur. In unit test 4, quantitative analysis of different base systems will be used to convert between base systems and perform modular arithmetic calculations.

SLO #5: Evaluate solutions to problems for reasonableness. Recognize patterns and use these patterns for predicting the general term in a sequence.

- In unit test 1, students will be required to recognize patterns and use these patterns to predict a future or "n" th term. A sense of what is a reasonable extension of the pattern presented is all but essential.
- In unit test 3, students will need to apply methods of probability to determine how like an event is to occur. A sense of what is reasonable is essential in understanding what is the range of possible solutions and greatly assists this process.
- In unit test 4, conversion within the metric system and between American and metric units requires a sense of what is a reasonable solution to check one's answer. (The comprehensive final exam will also evaluate this learning objective).

SLO #6: Apply mathematical methods to problems in other fields of study including Economic, Computer Science, Statistics, Modular number theory and Probabilities.

- In this course mathematical methods will be applied to: Computer Science-Modular number theory (Unit test 4 base two system) and Probabilities (Unit test 3) (The comprehensive final exam will also evaluate this learning objective)

MAT 100 SI

COURSE OUTLINE

I. SEQUENCES OF REAL NUMBERS
1. Addition of signed numbers
2. Subtraction of signed numbers
3. Multiplication of signed numbers
4. Division of signed numbers
5. Arithmetical Progressions
6. Multi-level Arithmetical Progressions
7. Geometrical Progression
8. Harmonic Progressions

II. FACTORIZATION AND PRIME NUMBERS:
1. Addition of fractions with the same denominator
2. Subtraction of fractions with the same denominator
3. Addition of fractions with the different denominators
4. Subtraction of fractions with the different denominators
5. Multiplication of fractions
6. Division of fractions
7. Find the factors of any counting numbers
8. Distinguish between prime and composite number
9. Find the prime factorization of any counting number

III. PROBABILITY
1. Percent
2. The three types of percent problems
3. Change percent to decimal and to fraction
4. Find the probability of an event such as rolling a dice, picking a card from a random deck or tossing a coin.
5. Describe the sample space of a probability experiment.
6. Find the probability of two events occurring that are mutually exclusive
7. Find the probability of two events occurring that are not mutually exclusive.

Test # 1

IV. PLACE VALUE IN THE DECIMAL SYSTEM:

1. Write numbers in expanded notation
2. Write numbers in the decimal notation

V. OTHER BASES:
1. Discover other systems of notation
2. Write numbers in other bases
3. Translate numbers from base 10 to base x
4. Translate numbers from base x to base 10

VI. OPERATION IN OTHER BASES:
1. Perform addition in bases 2, 5 and 12
2. Perform addition in bases 2, 5 and 12
3. Perform multiplication in bases 2, 5 and 12
4. Perform division in bases 2, 5 and 12

VII. MOLULAR ARITHMETIC:
1. Add and subtract on a 12-hour clock
2. Multiply and divide on a 12-hour clock
3. Working with negative numbers on a clock
4. Compute in arithmetic modulo 5
5. Working with negative numbers in arithmetic modulo 5
6. Compute in arithmetic modulo10
7. Working with negative numbers in arithmetic modulo 10

VIII. THE METRIC SYSTEM:
1. Definition of a number written in scientific notation with examples
2. Change a number written in scientific notation to standard notation
3. Change a number written in standard notation to scientific notation
4. Multiply numbers written in scientific notation
5. Divide numbers written in scientific notation
6. Units of measure in the metric system
7. Conversion of measurements within the metric system
8. Conversion between the Metric and English systems

Test # 2: Midterm

IX. NUMBERS AND NUMERALS:
1. Define number and numeral
2. Write Roman (Egyptian) numerals
3. Compute in the Roman (Egyptian) system of numeration

X. BASIC DEFINITIONS AND PROPERTIES OF SET:
1. Define set, subset, proper subset, empty set, universal set
2. Describe sets by rule and roster
3. Define complement of a set
4. Find the number of subsets that can be formed from an indefinite set

5. Identify equivalent sets
6. Classify sets as finite or infinite

XI. RELATIONSHIPS BETWEEN SETS:
1. Define and find the intersection of sets
2. Define and find the union of sets

XII. SETS OF POINTS:
1. Draw Venn diagrams illustrating the union of sets
2. Draw Venn diagrams illustrating the intersection of sets
3. Use Venn diagrams to show that two sets are equal

XIII. BASIC DEFINITIONS AND PROPERTIES OF SETS:
1. Classify numbers as ordinal, or cardinal
2. Construct a one-to-one correspondence between the elements of two sets

Test # 3

XIV. LOGICAL STATEMENTS:
1. Translate English statements into symbolic form
2. Write the negation, conjunction and disjunction of given statements
3. Write the converse, inverse and contrapositive of given statements

XV. TRUTH TABLE:
1. Give a truth value to a given compound statement
2. State whether or not two given statements are equivalent.
3. Determine whether or not a given statement is a tautology.

Final Exam

APPENDIX Q ENGLISH COURSE SYLLABUS

English 10/110, Accelerated Skills with Expository Writing

ENG 10 is 0 credits/2 hours
ENG 110 is 3 credits/4 hours
[redacted]

Spring 2022 Academic Calendar, [redacted]
(link here)

ENG 10 section 316A, 28662 Accelerated Writing Skills, combined with ENG 110 sections 216 C and D, 28661 and 26661 Expository Writing (class website link)

Spring 2022 Class meeting information: ENG 110 meets TTh 9:30-11:15 AM, B507 in person
Students enrolled in ENG 10 also meet TTh 11:30-12:20 PM, C567 in person
[redacted]

ENG 10 Prerequisite/Corequisite

[redacted] Proficiency Index of below 50.

ENG 10 Course Description

The Accelerated Learning Program (ALP) links ENG 110: Expository Writing and a non-credit bearing course, ENG 10: Accelerated Writing Skills. ENG 10 integrates developmental students into a college-level English course. The main objective of ENG 10 is to reinforce the skills learned in the required composition course by providing faculty- led, individualized instruction in a section capped at ten students. The three additional hours of instruction will reinforce reading, composition, and revision strategies so that students will be able to produce essays expected of students who successfully complete ENG 110, Expository Writing.

ENG 110 Prerequisite/Corequisite

Placement

ENG 110 Course Description

English 110, a foundational writing course, is designed to strengthen students' composing
skills so that they will produce increasingly complex and better-structured essays. Reading and
responding to interdisciplinary texts representing various rhetorical modes, students will practice paraphrasing and summarizing these texts, enrich their vocabulary, and improve their

writing, revision, and proofreading skills. Additionally, students will be introduced to the use
of print and on-line secondary sources. Upon completion of this course, students will be able to
respond critically, in writing, to a variety or texts, integrating their own ideas with those presented in the readings.

*Please note that ENG110 is a nonfiction course.

A Note on Course Sequence – English 110 and English 111

English 110 and English 111 make up the Writing Composition sequence at [redacted] College. English 110, "Expository Writing," teaches students to "respond critically, in writing, to a variety of texts integrating their own ideas with those presented in the
readings." In English 111, students will apply these critical skills to works of literature in the
form of literary analysis and close reading. Students will continue to develop their summarizing, paraphrasing, quoting, citation, and critical thinking skills throughout the sequence.

Course Text(s) and Material(s)

These sections are ZERO textbook costs. Texts for the class are openly licensed and free of
charge. List of class readings (link here)

Student Learning Objectives

In this course, students will:

• Read and listen critically and analytically, including identifying an argument's major assumptions and assertions and evaluating its supporting evidence.

• Write clearly and coherently in varied, academic formats (such as formal essays, research papers, and reports) using standard English and appropriate technology to critique and improves one's own and other's texts.

• Demonstrate research skills using appropriate technology, including gathering, evaluating, and synthesizing primary and secondary sources.
• Support a thesis with well-reasoned arguments, and communicate persuasively across a
variety of contexts, purpose, audiences, and media.
• Formulate original ideas and relate them to the ideas of others by employing the

conventions of ethical attribution and citation.

ENG 110 Pathways Learning Outcomes

Title and Brief Description of Assignments that Address These

Outcomes

1. Read and listen critically and analytically, including identifying an argument's major assumptions and assertions and evaluating its supporting evidence.

The three graded written analyses, the group project, and the final exam require analysis of readings.

Class activities associated with all these assignments closely focus on active reading, analysis of texts, and evaluation of arguments and evidence.

3

Americans With Disabilities Act Statement

As required by the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990,
reasonable accommodations are provided to ensure equal opportunity for students with verified
disabilities. If you have a disability that requires accommodations, contact the

Accessibility

[redacted]

If you are already registered with the ARC and have a letter from them verifying that you are a
student with a disability, please present the letter to the instructor as soon as possible. The
instructor will work with you and the ARC to plan and implement appropriate accommodations.

Grading

Regular writing workshops focus drafting on key writing skills, including developing a thesis, organizing ideas, revising drafts, and evaluating and citing sources.

2. Write clearly and coherently in varied, academic formats (such as formal essays, research papers, and reports) using standard English and appropriate technology to critique and improve one's own and others' texts.

In addition to formal graded analyses, students complete a group project that involves research, MLA citation, reviews of peers' projects, and written reflection on individual contributions. These include multiple drafts and peer review.

3. Demonstrate research skills using appropriate technology, including gathering, evaluating, and synthesizing primary and secondary sources.

The group project requires research skills, synthesis of primary and secondary sources, and MLA works cited list.

4. Support a thesis with well-reasoned arguments, and communicate

persuasively across a variety of contexts, purposes, audiences, and media.

Formal graded analyses require thesisdriven writing. The group project involves research and presentation to peers with a focus on informing and persuading.

5. Formulate original ideas and relate them to the ideas of others by employing the conventions of ethical attribution and citation.

All formal graded analyses require thesisdriven discussion with close readings and attribution to others' written works. The group project requires sustained research and presentation of results in MLA style.

Forum contributions emphasize generating original, carefully considered ideas in preparation for and in response to class discussions, reading assignments, and formal graded analyses.

4

The final grade for the course will be based on:

30% **Forum contributions** (forum guide link), choose 20 out of 22 @1.5 pts each, 100200 words each
30% **Written analyses** (analyses guide link), choose 3 for grading @10 pts each, 700-800 words each
20% **Group project** (group project guide link), project @5 pts, reviews @5 pts, individual contribution @10 pts
20% **English Department final exam** (exam guide link), 500-800 words

Students must perform all work adequately and in a timely manner in order to receive a passing grade. Each student will be given equal consideration regardless of need, personal situation, GPA, program requirements, etc. Final grades are A, A-, B+, B, B-, C+, C, D, F, WU, INC.
Further information about assessment policies and grades at Hostos is available on the college website.

A General Note about Grades at [redacted]

• **The "WU" grade**: According to [redacted] policy, a "WU" is "to be assigned to students who participated in an academically related activity at least once, completely stopped participating in academically related activities any time before the culminating academic experience of the course, i.e. final exam, final paper, etc., and did not officially withdraw."

• **"F" versus "WU" grades**: According to the [redacted] policy, "A WU grade should never
be given in place of an 'F' grade. The 'F' grade is an earned grade based on poor performance and the student not meeting the learning objectives/outcomes of the course throughout the entire academic term/session. If the student has participated in an academically related activity at least once or if there is documented evidence of the student's participation in a course, and he/she has ceased participating in the course, at the end of the term, the unofficial withdrawal grade reported must be a 'WU.' When a student does not officially withdraw from a course and fails to complete the course requirements, the instructor assigns the 'WU' grade on the final grade roster."

• **The "D" grade**: A student that earns a "D" grade is entitled to receive a "D." Our departmental research indicates that students who receive "WU" and "F" grades in composition courses have a 5% chance of graduating whereas those who receive "D" grades have much better outcomes.

Writing Format Requirements

All work must be submitted in blackboard as Word or PDF documents. They should be typed,
double-spaced, with a font size of 12; margins should be 1-inch. The student's name, instructor's name, course title, and due date should be at the top of the first
page. **Consult** our
Writing Commons (link here) for guides to writing and MLA format.

5

Course Policies

I will be available for virtual office hours T 2:00-3:00pm and F 12:30-1:30pm

Video chat guides to class materials

How to post to class discussion forums (link here), 4:48
How to access activities and assignments (link here), 4:20
How to submit assignments in blackboard (link here), 3:20
Writing Commons for writing and MLA format advice (link here)
MLA template for use for essays (link here)
Free Hostos Zoom account to form study groups (link here)
List of class readings (link here)

Participation

Students are responsible for understanding and following college policies on class participation. A student participates in class by engaging in academically related class activities and events and completing assignments. Examples of such activities include, but are not limited to, contributing to discussions; submitting quizzes, activities, and assignments; reading and/or viewing class materials; attending class meetings and virtual office hours. Note if a student does not participate in class at least once in the first week of the course, the Office of the Registrar is required to assign a grade of "WN" to the student's record for the course.

As a member and participant in an active learning community, students are responsible for actively contributing to the life of the course. Active participation may include asking questions relevant to our readings, offering personal analysis or opinion, reading aloud excerpts from materials, or discussing course content in a remote medium, such as the Blackboard discussion board.

Late Work

All assignments except the final exam may be submitted without penalty within 24 hours of the due date, in case difficulties arise.

Academic Integrity

As members of a learning community, students are responsible for understanding and following the [redacted] policies on academic integrity [https://bit.ly/3hK4vxH], including cheating and plagiarism.

College Resources

[redacted] Academic Learning Center offers students one-on-one and small-group tutoring as well as in-center workshops and online writing resources. In order to maximize student

potential in this course, frequent visits to the Writing Center (located [redacted] are encouraged.

- Writing Center Website
- Office: [redacted]

Personal issues may impact academic performance. The Counseling Center provides on-going personal and academic counseling on an individual and group basis. Counseling is

provided in
a private and supportive environment in which students may focus on academic and career
issues, family problems, personal development concerns and other matters of importance to
them.

• Counseling Center Website
[redacted]

[redacted]
One Stop offers supportive services to ensure that students have a successful college experience and are able to complete their degree.

Our One Stop Center provides FREE referrals to services that can help address the needs of
[redacted] students so that they can remain in school and succeed academically.

Located in the [redacted] Center
offers the following free benefits screenings: food stamps, Medicaid, housing, public assistance, social security, disability SSI, school lunch, transportation, mental health care,
domestic violence services, foster-care placement, food vouchers, debt solution, credit report,
financial planning, maintaining small business, free tax preparation, legal advice and much
more.

Walk-ins are accepted. Appointments can be scheduled by calling our **One Stop Center at**
[redacted]

[redacted]

[redacted]

Accessibility Resource Center

The Accessibility Resource Center provides essential support for students who have documented disabilities. Students using ARC graduate at higher rates, have higher GPAs

than
the average [redacted] student, and get help with job placement. Their website reminds us that
"Prior documentation such as an Individualized Education Program (IEP) or a history of

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receiving accommodations from a former school may also be considered when registering for
services. If you cannot provide documentation for your disability you are not necessarily excluded from ARC services."

- [redacted]

[redacted]

Schedule of Classes

ENG 10 section 316A, 28662 Accelerated Writing Skills, combined with ENG 110 sections 216 C and D, 28661 and 26661 Expository Writing (class website link)

Spring 2022 Class meeting information: ENG 110 meets TTh 9:30-11:15 AM, B507 in person
Students enrolled in ENG 10 also meet TTh 11:30-12:20 PM, C567 in person
[redacted]

Spring 2022 Academic Calendar, Hostos Community College (link here)

I will be available for virtual office hours T 2:00-3:00pm and F 12:30-1:30pm. Email
[redacted] if you would like

to
schedule a meeting at a different time.

Video chat guides to class materials (link here)

How to post to class discussion forums (link here), 4:48
How to access activities and assignments (link here), 4:20
How to submit assignments in blackboard (link here), 3:20
Writing Commons for writing and MLA format advice (link here)
MLA template for use for essays (link here)
[redacted] Zoom account to form study groups (link here)
List of class readings (link here)

The final grade for the course will be based on:

30% **Forum contributions** (forum guide link), choose 20 out of 22 @1.5 pts each, 100200 words each
30% **Written analyses** (analyses guide link), choose 3 for grading @10 pts each, 700-800 words each
20% **Group project** (group project guide link), project @5 pts, reviews @5 pts, individual contribution @10 pts

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20% **English Department final exam** (exam guide link), 500-800 words

Icebreaker: Getting to know your classmates

T 01/31-Th 02/03 Biopoems, Happiness lessons (directions link here)

See guides to etiquette (link here) and writing effective discussion posts (link here)
✎ Th 02/03 post to forum biopoem and reply to 1 classmate (biopoem guide link)

congratulate yourself on getting started

Self-reflection and well-being

T 02/08-Th 02/10 Finding purpose (directions link here)

✎ Th 02/10 post happiness inventory to forum and reply to 1 classmate (forum guide link)

[redacted]

[redacted]

T 02/15-Th 02/17 Workshopping drafts (directions link here)

✎Th 02/17 post thesis for analysis #1 to forum and reply to 1 classmate

T 02/22-Th 02/24 Practicing emotional intelligence (directions link here)

❖T 02/22 Analysis #1 due, Self-reflection (analyses guide link)
✎Th 02/24 post two parts on emotional intelligence to forum

Connection and well-being

T 03/01-Th 03/03 Listening (directions link here)

✎Th 03/03 post two parts on generative listening to forum

T 03/08-Th 03/10 Workshopping organization, paragraphs, openings, closings
(directions link here)

✎Th 03/10 post two parts on organizing, paragraphing, opening, or closing to forum

T 03/15-Th 03/17 Communicating (directions link here)
❖T 03/15 Analysis #2 due, Connection (analyses guide link)
✎Th 03/17 post to forum on communicating and reply to 1 classmate

T 03/22-Th 03/24 Managing conflict (directions link here)

✎Th 03/24 post to forum on conflict and well-being and reply to 1 classmate

T 03/29-Th 03/31 Workshopping revisions (directions link here)

✎Th 03/31 post a writing difficulty to forum and reply to 1 classmate

Application to public well-being

T 04/05-Th 04/07 Talking Someone Out of Bigotry (directions link here)

❖T 04/05 Analysis #3 due, Public well-being (analyses guide link)
✎Th 04/07 post to forum group project topic with group members (project guide link)

T 04/12-Th 04/14 Group project previewing (directions link here)

✎Th 04/14 post to forum individual project preview (preview guide link)

F 04/15-F 04/22 Hostos Community College on break

T 04/26-Th 04/28 Group project sharing (directions link here)

🌟Projects shared with peers, group due Th 04/28 (project file sharing folder link)

T 05/03-Th 05/05 Group projects reflecting and reviewing (directions link here)

🌟Project individual contribution, individual due in Blackboard for grading Th 05/05 (individual contribution guide link)
🌟Project reviews, 2 individual due in Blackboard for grading Th 05/05 (review guide link)

T 05/10-Th 05/12 Final exam prep (directions link here)

✎Th 05/12 post to forum final exam prep

❖W 05/18-T 05/24 Final exam (final exam guide link)

Final exams at Hostos Community College W 05/18-T 05/24

congratulate yourself on finishing the *whole semester*

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