ABSTRACT

South Plains College Students' Perspectives and the Relationship
Between Academic Self-Perception, Implicit Writing Beliefs, and Their Experiences
in a Corequisite Model Writing Course: A Mixed Methods Study

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Every year, underprepared students begin college with remediation courses that do not count toward their degree. Although enrolled in an institution of higher education, students may be taking few, if any, college-level courses. The underprepared student presents a significant challenge in the effort to raise educational attainment. Thus, the state of Texas must closely examine the design and implementation of developmental education for these students. In order to work toward the goal of increased educational attainment in higher education, the Texas legislature has recently mandated the corequisite model of remediation, which allows students to enroll in a credit-bearing course while being co-enrolled in the prerequisite developmental course. Corequisite courses will enable students to immediately begin earning college credit and move toward earning a degree.

The purpose of this explanatory sequential mixed-methods study was to amplify the student voices and experiences currently not in consideration in the developmental education discourse. The study investigated the lived experiences, including academic

self-perceptions and implicit writing beliefs as they relate to academic success and retention, of students enrolled in developmental composition courses at South Plains College. By heeding these student experiences, stakeholders in higher education might mitigate the barriers that developmental students face in completing a postsecondary degree or certificate. This study used an explanatory sequential design beginning with a quantitative phase followed up by a qualitative phase explaining the initial qualitative results.

The quantitative results of this study indicated that there was no statistically significant difference in self-efficacy scores, writing belief scores, and final grades in the college-level gateway composition course between corequisite students and those who completed the traditional developmental sequence. The second, qualitative phase provided a more complete understanding of these results. Both course types bolstered academic self-efficacy and fostered participants' view of themselves as capable of effective academic writing and communication. Additionally, the qualitative results implied that students' ability to choose their course type was a driver of their satisfaction with the courses.

South Plains College Students' Perspectives and the Relationship
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in a Corequisite Model Writing Course: A Mixed Methods Study

by

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A Dissertation

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LIST OF ABBREVIATIONS

ALP: Accelerated Learning Project

FGLI: First-Generation Low-Income

MMA: Multiple Measures Assessments

SCT: Social Cognitive Theory

SELF–A: Self-Efficacy for Learning Form–Abridged

SPC: South Plains College

THECB: Texas Higher Education Coordinating Board

TSI: Texas Success Initiative

TSIA: Texas Success Initiative Assessment

WBI: Writing Beliefs Inventory

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greatest privilege of my life is to be your daughter, wife, and mother. I hope you know

how much I love you.

DEDICATION

To Connally, Graham, and Olivia

CHAPTER ONE

Introduction to the Problem of Practice

Introduction

Community colleges serve many students who are deemed "not college-ready,"
and for those students, developmental courses are often their first and last college
experience. Few developmental students complete their gateway courses, and nationwide,
only about a third of students who take a developmental course at a community college
will complete a degree or certificate of any kind (Complete College America, 2016;
Center for the Analysis of Postsecondary Readiness, 2019). Traditionally, students
complete developmental courses in sequence from one to three semesters, depending on
the student's Texas Success Initiative (TSI) assessment scores. This approach bars
students from enrolling in the college-level gateway course until they have completed
their developmental classes. These courses cost as much and take as many semester hours
as a regular college course; however, students do not earn any college credit. The
sequence of developmental courses could add years to a student's degree plan. According
to Vandal (2016), there is an overrepresentation of African-American (70%) and
Hispanic (63%) students in developmental education. Those students deemed not college-
ready are also disproportionally low-income and first-generation students (Community
College Research Center, 2019; White, 2016).

When a student consistently experiences academic failure, that individual's sense
of self-efficacy is likely to erode (Bandura 1993, 1997). The experience of being deemed
not college-ready and placed in a developmental course further reinforces negative

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academic social and self-perception cues. Social persuasion and mastery experiences have the potential to elevate perceived self-efficacy, which could then influence college persistence rates (Bandura, 1997). With this in mind, it would benefit developmental educators, community college leaders, and policymakers to understand the effects that corequisite developmental courses have on the academic self-perceptions of students. This awareness is particularly relevant as the Texas Higher Education Coordinating Board (THECB) has begun emphasizing the role that community colleges play in addressing the changing demographics and educational needs of Texans (THECB & Richard T. Ingram Center for Public Trusteeship and Governance of the Association of Governing Boards of Universities and Colleges, 2008). The scientific inquiry into self-efficacy as a psychological construct relates to college student academic performance (Bong, 2001; Vancouver, Thompson & Williams, 2001), but very little of this work focuses on developmental students, especially those enrolled in the recently mandated corequisite courses in Texas. This study aimed to advance knowledge about Texas' corequisite students' experiences and self-efficacy.

Statement of the Problem

Community colleges' primary tool for addressing the needs of underprepared students is developmental education, but any educational system that does not take into account the student experience does a disservice to those students. In 2017, the Texas legislature approved HB 2223 requiring the use of corequisite remediation for developmental education; the bill mandates that Texas public colleges and universities offering developmental education courses deliver 75% of those courses as corequisite models by 2020 (Smith, 2017). The structure of the corequisite model means that

students could immediately begin college-level work with the corequisite developmental course serving as support, and presumably, move more quickly toward degree completion. Many postsecondary leaders and educators see this mandate as a turning point in Texas' developmental education. The state of Tennessee eliminated stand-alone remedial courses in 2015, and in 2016, 61% of students completed the associated gateway course as compared to the national average of 22% (Complete College America, 2016). Placing academically underprepared students in a college-level course is controversial, however. Boggs (2011) describes the open policy of community colleges as "the revolving door," and some leaders and educators in higher education see allowing students to enroll in college-level courses without first being deemed college-ready as doing a disservice to those students (p. 7). Missing from these discussions are the voices of the students directly affected by the corequisite model.

Additionally, according to Tinto's (1994) interactionalist model of student retention, students experience a period of difficulty adjusting to their first exposure to a college campus atmosphere. Some students will find this adjustment period too difficult and will ultimately quit. Low self-efficacy and personal agency can contribute to this difficult adjustment period. Students' writing and linguistic anxieties combined with their fears about their academic abilities could be reinforced by placement in a developmental class. Together with long course sequences and the expense of developmental requirements, it is not surprising that many hopeful college students experience a negative perception of themselves in an academic setting. According to Tinto (2012), when an institution admits an underprepared student, it takes on a moral obligation to establish conditions to enhance the student's likelihood of success. As open-access

institutions, Texas community colleges must offer the strongest possible support for students.

Developmental education is not new, but as Barhoum (2017) notes, due to the racial, economic, and cultural diversity represented by developmental students and their low academic success rate, stakeholders are increasingly seeking new knowledge and promising practices to positively transform developmental education programs. In fact, the Bill and Melinda Gates Foundation has devoted millions of dollars to partner with community colleges in addressing the problem of developmental education (Foundation giving $110 million to transform remedial education, 2012). According to the Texas Higher Education Coordinating Board, almost 40% of students entering public institutions did not meet Texas college readiness standards, and of students entering two-year colleges, the number was closer to 60% (2018).

In two-year institutions such as South Plains College that reflect the growing racial and ethnic diversity of Texas, the state of developmental education has profound ramifications for the future of equitable educational outcomes. A mixed-methods study investigating the academic self-perceptions and writing beliefs of students who are affected by the recently-enacted state-level policy and enrolled in corequisite courses composition courses at the community college level will remedy the lack of student voices heard in this situation.

Purpose of the Study

The purpose of this mixed-methods study was to investigate the lived experiences, including the academic self-perceptions and beliefs about writing of students enrolled in the corequisite model of developmental composition education at South Plains College.

This study used an explanatory sequential mixed methods design in which quantitative data were collected first and then explained with in-depth qualitative data. In the first quantitative phase of the study, self-efficacy and writing beliefs data were collected from students completing the corequisite model composition courses and developmental students completing the traditional sequential developmental composition courses at South Plains College along with the students' final grades in the gateway college-level portion of the course pairing. Data sources included the *Self-Efficacy for Learning Form –Abridged* (SELF–A) assessing students' self-efficacy beliefs regarding their use of specific self-regulatory processes in various areas of academic functioning and the *Writing Beliefs Inventory* assessing how students' implicit beliefs about understanding and completing the writing task influence cognitive processes, motivation, and behavior in a composition course. The inventories were administered after completion of the gateway college-level portion of the composition course pairing, and the final grades were collected from student records. The quantitative results were collected from the pool of students (N= 946) who had completed the corequisite developmental courses at South Plains College between the fall 2018 semester and the fall 2020 semester and the pool of students (N=39) who had completed the gateway composition course who previously completed the stand-alone development course within the same period. Final grades for the gateway course were collected from students' records for corequisite completers (N=946) and those who completed the standalone course plus the gateway course (N=39). For phase two of the study, the qualitative data were collected from two purposefully selected individuals to explain the results in more depth through a case study analysis.

In the first, quantitative, phase of the study, the research questions focused on the relationships in academic self-efficacy, writing beliefs scores, and final course grades between developmental students who had completed the corequisite model developmental courses and the students who had completed the traditional sequential design. In the second, qualitative, phase two case studies, one from each participant group, explored in depth the results of the statistical tests employed in phase one. By heeding these student experiences, stakeholders in higher education might mitigate the barriers that developmental students face in completing a postsecondary degree or certificate. This study addressed the following research questions:

What is the relationship in academic self-efficacy and writing belief scores between developmental students who have completed a corequisite model developmental and gateway composition course combination and students who have completed the traditional sequence of a developmental course followed by the gateway composition course?

What are the contributions of course sequence type to students' final grade in the gateway composition course?

As the end-users and most important stakeholders in developmental education, students' contributions to the academic discourse should be substantial. Their personal experiences of self-efficacy, mastery, and the perceived social messages of placement in a developmental class will lead toward achieving Texas' overarching goal of an educated populace (THECB & Richard T. Ingram Center for Public Trusteeship and Governance of the Association of Governing Boards of Universities and Colleges, 2008).

Theoretical Framework

This study used an *a priori* theoretical framework that examines human functioning as an interaction between cognition, behavior, and social relations and emphasizes the role of self-referent thinking in guiding motivation and behavior. After

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collecting the data, the researcher then analyzed that data from the perspective of Bandura's Social Cognitive Theory (SCT), focusing primarily on the self-efficacy construct (Bandura 1993, 1997, 2012). According to Bandura's SCT, self-efficacy influences behavior, which is reinforced through social interaction. Additionally, self-efficacy helps determine one's effort, thought patterns, and motivation. Students learn from both personal mastery experiences and from observing others' mastery experiences.

Through self-reflection, students make judgments about their capabilities for learning or performing certain tasks. As Schunk and Pajares (2010) note, self-efficacy beliefs differ from self-esteem and are context-specific; students may have generally high self-esteem but judge themselves as incapable of writing an essay or solving a math problem. The primary source of students' academic self-efficacy is their previous experience (Schunk & Parajares, 2010). Students who have been placed in developmental courses may have experienced previous academic failures that led them to negatively revise their assessment of their writing abilities, and as Bandura (1986) points out, people are less likely to attempt a challenge that they believe exceeds their abilities. Informed by the four sources listed in Figure 1, self-efficacy beliefs determine students' selection of tasks and activities as well as resilience in the face of adversity (Schunk & Pajares, 2010). If corequisite courses can provide opportunities for students' positive self-efficacy judgments informed by these four areas, they will have an empowering influence on future academic achievement.

While the construct of self-efficacy occurs in multiple domains, this study focused on academic self-efficacy as it relates to writing. At South Plains College, the developmental support course attached to the gateway course in the corequisite model is

intended to boost student self-efficacy and agency and allow mastery experiences in writing so that students are successful in college-level coursework and not trapped in the developmental sequence. This support can offer the "training wheels" of scaffolding peer reviews and writing workshops while allowing students to practice the process of academic writing and become capable of producing it in other college-level courses in the future. If the courses raise academic self-perceptions as policymakers and educators hope they will, students will not only earn college-level credit earlier than would have otherwise been possible, they will also demonstrate resiliency and agency in achieving their academic goals.
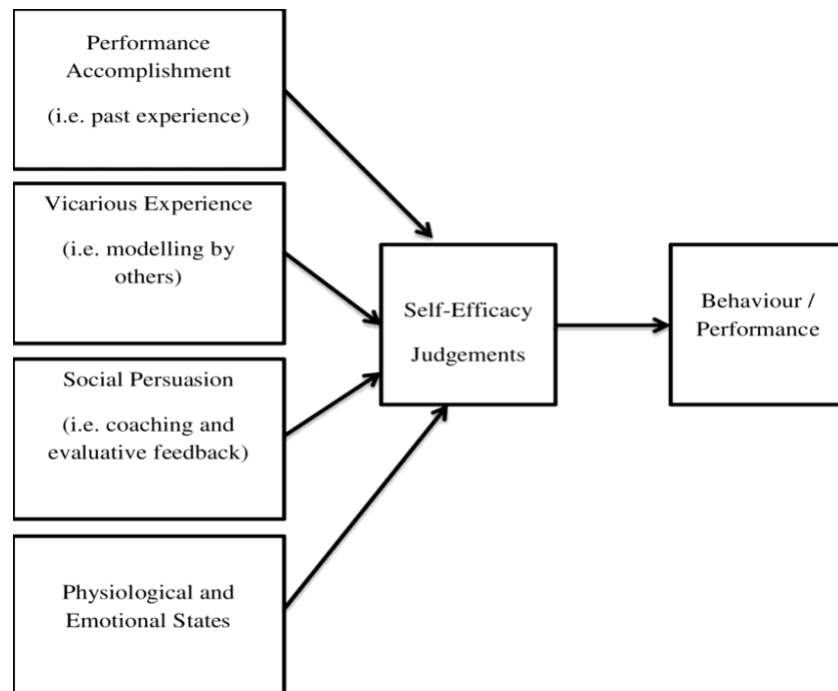
Figure 1. Bandura's self-efficacy theory (Bandura, 1977).

Research Design

This study used an explanatory sequential mixed methods design in which quantitative data was first collected and then explained with in-depth qualitative data. This mixed methods study investigated the academic self-efficacy perceptions and writing beliefs of developmental students completing the corequisite model composition courses and developmental students completing the traditional sequential developmental composition courses at South Plains College along with the students' final grades in the gateway college-level portion of the course pairing. The correlational design of phase one is viable for instances such as this because the randomization of students into either stand-alone or corequisite developmental courses was not possible. The groups were already formed by the time the study began, but the researcher sought to examine a relationship between the developmental course model and students' academic self-efficacy, writing beliefs, and final gateway course grade. The qualitative strand of the study shed light on why the quantitative results occurred, especially their cultural significance, and how they might be explained.

Definition of Key Terms

College-readiness: According to the Texas College and Career Readiness and Success Center, based at the American Institutes for Research (n.d.), college-readiness can be defined as the following:

> The level of preparation a student must attain in English language arts and mathematics courses to enroll and succeed, without remediation, in an entry-level general education course for credit in that same content area for a baccalaureate degree or associate degree program. (para. 1)

Self-efficacy: Woodrow (2011) defines self-efficacy as "the perception of abilities to perform actions at a particular level." (p. 511)

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Corequisite Model: The Texas Corequisite Project (2020) defines a corequisite model as

the following:

> An instructional strategy whereby undergraduate students who are not certified as college-ready under the Texas Success Initiative Assessment (TSIA) are co-enrolled or concurrently enrolled in a developmental education course or non-course-based option (NCBO) and the entry-level, credit course within the same semester. (para. 3)

Texas Success Initiative Assessment (TSIA): Cui and Bay (2017) describe the TSIA as the

following:

> [a] state-legislated assessment program designed to improve student success in college by determining if students are ready for college-level course work in the general areas of reading, writing, and mathematics. (p. 5)

Conclusion

A student's early college experiences and levels of success are critical to degree

completion (Tinto, 2012). One of the key concepts in increasing student persistence,

agency, and motivation is self-efficacy (Bandura, 1997; Banerjee, & Laurmann, 2014;

Gordon, 2016; Matthews, Zander et al., 2018). Developmental education has the potential

to either increase students' mastery and academic self-perceptions that lead toward goal

attainment or reinforce negative stereotypes that discourage persistence. As Texas strives

toward the goal of increasing the educational attainment of its citizens, understanding the

student experience of corequisite courses may support educators and policymakers in

their remediation and retention efforts. This study adds to the available literature on

corequisite courses and takes the unique approach of examining student experiences and

academic self-perceptions related to the corequisite model. Chapter Two provides a

detailed review of the literature concerning developmental education, academic self-

efficacy, and corequisite model courses.

CHAPTER TWO

Literature Review

Introduction

Every year, students begin the quest for a college education, the widely agreed
upon prerequisite for attaining the American dream. However, as previously noted,
testing indicates that many of these students are unprepared for college-level work, so
they are placed into developmental or remedial courses. Developmental courses can serve
as either productive enrichment toward completing college-level courses or as barriers
causing students to drop out. While developmental education is not a new problem, this
literature review is framed within the current issue facing Texas community colleges of
implementing the newly-mandated corequisite model of remediation and increasing
student persistence and completion rates.

First, this literature review examines the existing scholarship on the problems of
underprepared students and developmental education, particularly in community colleges,
including barriers to success and retention, student writing beliefs, and student academic
self-perception. Next, it details Texas's efforts to ameliorate these problems in order to
highlight the need for further study, particularly from the student perspective. Then, it
surveys the body of literature highlighting the effect of students' academic self-efficacy,
an aspect of Bandura's Social Cognitive Theory, on their levels of anxiety, motivation,
persistence, and agency in academic settings, drawing out the significance of this
construct as a predictor of academic integration and college completion. Finally, this

chapter underscores the need for valuing the voices and experiences of the students who are directly affected by the corequisite model of developmental education.

Problems in Developmental Education

Assisting students who are not prepared for the rigors of a college classroom is not new, nor are controversies associated with why students are underprepared, who is placed in developmental courses, and how those courses are implemented. As early as 1642, educators created "dame schools" to meet the needs of students who were not prepared in their previous schooling for Harvard's Latin and Greek requirements (Arandale, 2011). By 1874, in response to the faculty's complaints about entering students' poor academic writing performance, Harvard created the first remedial composition course (Arandale, 2011). Developmental education has been a fixture of postsecondary education ever since, especially in community colleges, and has not evolved as quickly as one might expect. For over half a century, American students have been placed in developmental or remedial courses based on test results or other college entrance requirements, but these courses are not always successful in fostering students' academic progression (Arandale, 2011). Community college stakeholders must be aware of previous and existing problems in developmental education in order to develop a response that takes into account the needs of students.

Underprepared Students

The growing problem of underprepared college students has become a topic of intense debate and conversation in the past decade. However, in 2013, when then-Governor Rick Perry signed into law House Bill 5 as a reform measure for state secondary education, some of the supports that were in place for college preparedness

were withdrawn (Smith, 2013). The bill lowered the required number of standardized tests, but it also changed the required credits for high school graduation. Previous requirements for graduation included four credits each of English, math, science, and social studies and were geared toward preparing students for college. Under the new bill, students can choose from a variety of tracks and endorsements designed to increase technical education across the state (Smith, 2013). While many applaud the flexibility the plan offers, it is possible that lowering the required academic courses contributes to the problem of student unpreparedness at the postsecondary level.

Decreased graduation requirements exacerbate the current issue of college readiness, which has long been a concern for Texas high schools and colleges. In their study using data from the Texas Education Agency's Academic Excellence Indicator System of 2006–2007 college-ready graduates in the state of Texas, Moore et al. (2010) found that less than half (44.76%) of all high school seniors were college-ready in both reading and math. The statistical tests employed by the authors of this study were limited by the data collection methods of the state of Texas. However, they underscore the need for stakeholders in higher education, especially community colleges, to pursue high standards and rigorous coursework at the secondary level and to prepare effective remediation programs to help students bridge the gap between high school and college. Although this data does not reflect current college-readiness statistics, it is certainly possible that there is a growing misalignment between high school and college expectations as traditional academic courses are being replaced with technical and occupational courses for some students.

While adults returning to school drive a portion of the remediation in community colleges, underprepared students also come directly from high schools. Students' experiences in college, particularly during the initial adjustment period, are filtered through the lens of prior academic experiences that could increase their sense of unpreparedness. This sense of being unprepared could then prevent students from developing the skills to manage their anxieties and advocate for themselves in a college setting. Additionally, students of color face more challenges both before and during college than their white peers, thus further impacting their self-efficacy (Bui, 2002). The exact roots of academic unpreparedness are complex and difficult to identify definitively, but there is no doubt that further understanding students' academic self-perceptions as they relate to developmental classes will benefit the ability of institutions to serve them effectively.

Student Placement in Remedial Courses

Although community colleges are open access, many students are deemed "not college-ready" and are unable to enroll in college-level courses right away. College readiness testing and requirements vary from institution to institution and from state to state, so no real comparative data is available. However, a general description of what colleges expect comes from Conley (2010), who defines college readiness as "the level of preparation a student needs in order to enroll and succeed—without remediation—in a credit-bearing course at a post-secondary institution" (p. 21). In Texas, students must take the Texas Success Initiative (TSI) assessment to determine their readiness for college-level work before enrolling in certain college-level courses; it covers math, reading, and writing (College for All Texans, 2019). Students who score below a particular cutoff are

placed in remedial classes. Of students enrolled in community colleges in Texas, 60 %

are considered not college-ready (Watkins, 2017). Despite Texas' requirement for

college-level course enrollment, students are not required to take the TSI assessment in

high school. Even though community colleges do not require the SAT or ACT, students

still face the hurdle of a test before enrolling in credit-bearing English, math, political

science, and psychology courses. Additionally, students often enroll without awareness of

the TSI testing requirement and may not understand the significance of the test on their

degree timeline and financial aid when taking it.

Community college stakeholders must also consider whether the college readiness

placement exams are valid for their intended purpose. Judith Scott-Clayton (2012)

studied widely used standardized placement exams designed to determine a student's

college readiness and found that the exams are more predictive of students' success in

math than in English. The exam sometimes seriously misplaces students. Her study

examined the nationwide use of the Accuplacer®, developed by the College Board, and

the Compass®, developed by ACT, Inc. She points out that GPA might be a better

indicator of college-readiness and suggests that colleges consider lowering the cutoff

scores even slightly so that they could enable higher rates of student access to college-

level transferable courses while potentially lowering severe placement mistakes (Clayton,

2012). Roksa et al. (2009) found that some students who were recommended for

enrollment in developmental courses neither took the classes nor completed further

college-level courses; placement in developmental classes ended their postsecondary

education before it had begun. Notably, they also found that some students who were

recommended for enrollment in higher-level developmental courses managed to avoid

them and passed the gateway courses at a similar level as those who did enroll in the developmental course (Roksa et al., 2009). For some students, the placement into a developmental class alone was enough to keep them from degree completion, while other students were successful without the developmental class. While remedial courses create important opportunities for students to bridge the college-readiness gap, the course-placement process can be frustrating for students who feel they may never catch up, especially if the "not college-ready" determination is inaccurate.

An additional area of concern for student placement in remedial courses is the emerging COVID-19 pandemic. Students almost always take placement exams in person, and because in 2020 many high school and college campuses are closed or operating with minimal staffing, in-person testing may be impossible. Cullinan et al. (2019) argue for the implementation of multiple measures assessments (MMA) such as high school grade point averages, noncognitive assessments, and other criteria as a more accurate method of student placement as opposed to single exams such as the TSIA. The early results of their random assignment study found that students placed into college-level English courses based on MMA were 28% more likely to have completed the gateway course by the end of their first semester than the control group (Cullinan et al., 2019). Despite the difficulty of implementing multiple measures on short notice, Texas community colleges may have no other choice if remote TSIA testing is unavailable. The pandemic could force a fundamental shift in how Texas students are placed into developmental courses.

Student Demographics and Completion Rates

While community colleges offer college for all, remedial students face a relatively small chance of graduation. Once placed in a developmental course, few students

complete their gateway courses, and only 17% will go on to graduate (Complete College America, 2016). Additionally, according to Bruce Vandal (2016), there is an overrepresentation of African-American (70%) and Hispanic (63% students in developmental education. Those deemed not college-ready are also disproportionally low-income and first-generation students (White, 2016). The students most directly affected by developmental education are students who are in historically marginalized groups. If college completion rates continue to widen, social and financial disparities will widen as well. Equity-minded stakeholders in remedial education must understand the gaps in student outcomes, especially from the student perspective, if they seek to increase degree attainment Texas' ambitious goals for an educated workforce cannot be met otherwise.

Conclusion

    As Texas seeks to open new educational opportunities to its citizens, stakeholders must examine the current problems in developmental education. History shows that postsecondary institutions have long faced the necessity of bridging the gap between students' skills and the rigor of a college classroom. Whatever the source of the perceived gap, either a misalignment between high school and college curriculum, an inadequate placement system, or increased access to college courses for students who might not otherwise attend, community colleges must implement strategies that increase course completion. Providing for the needs of an increasingly heterogeneous student population will take place through a practical response to the current state of developmental education and the barriers that students face.

Barriers to Success and Retention

In addition to the misalignment of placement tests and lack of preparedness for the college curriculum, many other factors can impede the success of developmental students. Students may face noncognitive factors such as lacking the social capital of parents who have themselves attended college along with the intense financial pressures of paying for higher education. Also, community college stakeholders often raise concerns about the cost of developmental education for both the institutions and the students and their families. The lack of financial and social support can affect students' academic success and persistence.

First-Generation College Students

When viewing students' experience in a community college through the lens of developmental education, it is also helpful to consider factors in addition to tested levels of college-readiness that impede degree completion. In their qualitative study of student readiness for college, Schademan and Thompson (2016) note the First-Generation Low-Income (FGLI) students make up a significant portion of college students and have lower retention rates than other students. The lower retention rates can lead to reduced income, higher student debt burdens, and higher incarceration rates (Schademan & Thompson, 2016). Several of the FGLI students in the study discussed a "lack of college awareness" or "how to do college" (Schademan & Thompson, 2016, p. 206). Falcon (2015) notes that many parents of first-generation students are not familiar with the importance of the high school curriculum in the college preparation process and are not as likely to persuade their children to take advanced courses or prepare for entrance exams as parents who themselves have postsecondary degrees. An informed and nuanced view of college

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readiness can help developmental education stakeholders mitigate these factors and encourage an educated Texas citizenry that is not only helpful for the individuals receiving an education but for the society of Texas as a whole.

In addition to academic and navigational college readiness struggles, first-generation students may also face a lack of financial and social support in their postsecondary pursuits. First-generation students come from lower-earning households than their continuing-generation peers; the U.S. Department of Education statistics show that 27% of first-generation students came from households earning less than $20,000 per year, and they are more likely to take out student loans (Redford, Hoyer, & Ralph, 2017). Additionally, of the first-generation students who had not earned a postsecondary credential within ten years of their 2002 sophomore year in high school, 54% cited the inability of affording to go to school (Redford, Hoyer, & Ralph, 2017). This finding relates well to Watkins' (2017) observation that for students in precarious financial situations, any disturbance such as an unexpected expense or a change in work hours could lead to dropping out. College-readiness is an issue that transcends test scores and the initial semester of college. It is an ongoing, longitudinal concern for community colleges, and an investigation into the student perspective of developmental corequisite courses can help institutions better support student success.

Costs for Students and Colleges

While remedial education should not be evaluated only on its cost-effectiveness, financial aspects can serve as important decision-making tools. Critics of remedial education argue that the high costs outweigh the benefits, and colleges should not be pouring money and institutional resources into something that does not work.

Nationwide, remedial education costs students and their families approximately $1.3 billion annually (Jimenez, Sargrad, Morales, & Thompson, 2016). However, as Pretlow III and Wathington (2012) point out, state and local expenditures on remedial courses have remained relatively stable as a percentage of overall education spending despite growing demand. The majority of the financial burden falls on the students rather than on colleges or the taxpayer. Pretlow III and Wathington (2012) call for states to make the data on remedial education publicly available so that the precise costs can be more accurately determined. Jimenez and colleagues (2016) insist that the growing need for remediation in college lies within K–12 systems and that the only way to lessen the costs of remediation for students is through transparency with high school students about the knowledge and skills necessary for success in college and collaboration between K–12 systems and higher education institutions.

The discouragingly low persistence and completion rates in community colleges also contribute to concerns about costs. In 2013, Texas initiated a performance-based funding system that awards funding based on student achievement for its 50 community colleges (Fraire, 2019). Jacob Fraire, president of the Texas Association of Community Colleges, argues that these financial incentives encourage data collection and transparency as well as a "collegial competitive culture" (Fraire, 2019, para. 5). However, McKinney and Hagedorn (2017) argue that performance-based funding could instead create a competitive culture that negatively affects colleges serving the most vulnerable and disadvantaged students. They also argue that performance-based funding models fail to account for student characteristics and do a poor job of accounting for the additional role that community colleges play in services such as adult basic education (McKinney &

Hagedorn, 2017). In a public policy brief, the Community College Research Center (2014) recommends that performance-based funding models allow variation based on student characteristics and offer direct incentives for enrolling disadvantaged students.

Despite the cost and funding concerns, it is currently unrealistic to eliminate developmental education and expect all students to be immediately successful in college-level course work without remediation. Underprepared students would be shut out of higher education, and as previously noted, the students most likely to be deemed not college-ready are traditionally underserved students. The fiscal pressures of offering developmental education could lead to an inequitable system of reducing access to higher education and furthering income inequality. To assess the costs and benefits of developmental education and its role in creating a more educated Texas workforce, developmental student experiences must be balanced with financial data.

Financial pressures for both colleges and students along with other noncognitive obstacles that many community college students face can prevent them from earning their degrees or certificates. Texas community colleges seek to provide a high-quality education to a unique student population with high hopes for success, but students' experiences in developmental courses can exacerbate these problems and be detrimental to students' academic and career plans.

Community Colleges

Community colleges serve more students than any other type of higher education institution. Of Texas students graduating with a bachelor's degree in 2013–2014, 70% of them had attended a community college (McKinney & Hagedorn, 2017). Community colleges are often closer to a student's residence and less intimidating than a four-year

institution while being more affordable and offering more flexibility for working and non-traditional students. Examining the student experience in community colleges is essential as it applies to such a large proportion of the overall higher education population.

Public community college student populations differ from those enrolled at public four-year institutions. Ma and Baum (2016) report that Asian and white undergraduates are more likely to be enrolled at four-year institutions while black and Hispanic students are more likely to be enrolled in two-year or for-profit institutions. In the two-year and for-profit sector, Hispanic undergraduates are the largest racial group nationwide, and in Texas, they constitute 39% of community college students (Ma & Baum, 2016). Community college enrollment also tends to include older students, first-generation students, and low-income students as compared to undergraduates enrolled in public four-year institutions (Ma & Baum, 2016). Unlike their peers enrolling in four-year institutions, many community students have not come directly to postsecondary education from a college-prep high school background. Community colleges enroll students through an open-access admissions policy, resulting in a diverse student population with a wide range of academic preparedness and psychosocial development.

Reform Efforts in Texas

Reform in developmental education has been an ongoing issue in Texas for decades. In 2000, the Texas Higher Education Coordinating Board introduced the Closing the Gaps plan to address the changing demographics and educational needs of Texas (THECB & Richard T. Ingram Center, 2015). The population of Texas is growing quickly, and over the next 50 years, the Hispanic population is projected to account for

80 % of that growth, so the THECB has placed special emphasis on increasing Hispanic

participation and success in higher education (THECB & Richard T. Ingram Center,

2015). Since the implementation of this plan, enrollment by Hispanics has increased by

50%, and their degree and certificate completion rates have increased to 67% (THECB &

Richard T. Ingram Center, 2015). The THECB has also emphasized the role that

community colleges play in being the first access point to higher education for many

underprepared, first-generation, and economically disadvantaged students.

      Addressing underprepared students' needs is an integral part of a community

college's day-to-day operations. According to the Texas Higher Education Coordinating

Board (2018), 58.3% of students entering Texas community colleges do not meet the

Texas Success Initiative (TSI) standards for college readiness. As Tinto (2012) points

out, when an institution admits an underprepared student, it takes on a moral obligation to

establish conditions to enhance that student's likelihood of success. Texas community

college systems face significant challenges to improve services and outcomes for these

students. Accountability is increasingly important in Texas because the state has set the

overarching goal that 60% of Texans between the ages of 25 and 34 will hold a

postsecondary degree or certificate by 2030. To facilitate this goal, the Texas legislature

has mandated the use of corequisite remediation for developmental education, and the

law requires that by 2020, Texas public colleges and universities offering developmental

education courses deliver 75% of them as corequisite models (Smith, 2017). This model

represents a change in curriculum as well as a possible change in faculty that community

colleges must negotiate, and the effect on students and faculty is not yet known.

As developmental educators and leaders develop their approach to the corequisite model, they must adjust classroom practices and incorporate new learning materials that can best support students with the intensity of instruction that a corequisite course brings. Faculty must develop quite a different set of skills from those required for teaching small groups of underprepared students in a stand-alone developmental course or larger groups of college-ready students. Additionally, faculty previously teaching stand-alone developmental courses may be ineligible for teaching the college-level portion of the corequisite courses because they lack the requisite number of graduate-level hours in the subject. In addition to potential shifts in faculty, developmental education leaders must also consider what form the corequisite course will take and how it will fit into students' schedules. As the THECB (n.d.) points out, corequisite examples can include Accelerated Learning Project (ALP) models, modular labs, supplemental instruction, sequential instruction, and others. Educators must address literacy issues, noncognitive issues, and credit-bearing coursework within a myriad of models across the state, but most institutions focus their efforts on supporting remedial students outside of the classroom (Moss et al., 2014). The conditions within the developmental classroom can either facilitate learning and academic success post-treatment or hamper it (Moss et al., 2014). The corequisite model can have far-reaching implications for both faculty and students, and the student experience deserves study.

Perhaps the key for faculty and other stakeholders in developmental education is not in the model itself and the complexities of its implementations but the voices of the students. When examining barriers that students face in their pursuit of higher education and how to best advocate for them, professionals must empower students' voices and

give them a platform in the academic community that they might not otherwise have. Something new is being implemented as a measure of institutional performance, and it is not yet known how it will affect students and their academic self-efficacy. Because these policies are unique to Texas, there is little literature addressing the student experience, especially as it related to academic self-perceptions of community college developmental students.

<div align="center">Student Writing Anxieties</div>

Writing can be a major source of stress and anxiety for college students, especially those who have been unsuccessful in previous writing experiences. Many first-year students see writing as following a series of grammar rules rather than as a way to convey information to others. MacArthur, Philippakos, and Graham (2016) note that many low-achieving students emphasize grammar and mechanics over the transmission of ideas. In their study, they found that students who view writing as a way to explore ideas are likely to exert more effort in a writing task than students who view writing as predominantly a matter of producing grammatically correct text (MacArthur, Philippakos, & Graham, 2016). While grammar is important, writing is a complex creative task that requires the author to consider different perspectives, generate ideas, and take their place in discourse communities. Writing effectively is fundamental to student success in college courses beyond freshman composition.

Writing anxieties can negatively alter students' academic self-perceptions. In her investigation of self-efficacy and writing anxiety in college students in China, Lindy Woodrow (2011) found that writing anxiety was negatively related to self-efficacy, which was positively related to writing performance. Anxious students were less likely to

expend effort in their writing and were more likely to have extrinsic grade-oriented motivations (Woodrow, 2011). While community college composition instructors generally expect some students to come into freshman-level composition with a certain amount of reluctance, they may not be aware of students' underlying insecurities and fears. Locating the source of anxiety and identifying students' academic self-perceptions about writing will help begin the process of effective remediation. Especially in a corequisite course, which is a pivotal point in an underprepared student's academic career, developmental education stakeholders must be fully informed about how students are affected by placement in the course.

Writing anxiety can also affect students' level of motivation and willingness to enroll in writing classes (Martinez, Kock, & Cass, 2011). In their study of 127 undergraduate students attending a public university in south Texas, Martinez, Kock, and Cass (2011) aimed to understand the predicting factors of writing anxiety and self-efficacy. They administered an initial survey on attitudes toward writing early in the semester and then a post-assessment survey 10 weeks later. The students were enrolled in various disciplines that involve writing. The researchers found that writing anxiety and self-efficacy were related and that students with higher GPAs reported less writing anxiety than students with lower GPAs (Martinez, Kock, & Cass, 2011). The study participants were predominantly Latinx, which may not be generalizable to all student populations but would be similar to the student population at South Plains College. As most corequisite students have had unsuccessful writing experiences in the past, it is possible that many of them also had poor high school GPAs as well as low levels of writing self-efficacy. Assessing student self-efficacy and student self-perceptions as they

relate to the corequisite model will fill a gap in the writing anxiety and self-efficacy literature.

Linguistic Insecurity

Because many community college students speak English as a second language, academic writing in English may provoke feelings of ineptitude. Students may become hyper-aware of perceived shortcomings in grammatical patterns, vocabulary, and punctuation to the point that they avoid writing whenever possible. In her qualitative study of 11 community college students who were part of the African diasporic community, Rochelle Holland (2013) found that students' linguistic insecurity in an academic context caused them to view their use of nonstandard English negatively and, in turn, increased their levels of writing anxiety and psychological barriers to learning. Several of the students reported enjoying writing for personal reasons but avoiding writing for academic purposes. The students' fear of expressing themselves in an academic context resulted from underlying reasons ranging from the inability to master the rules of grammar and punctuation to previous negative school-related writing experiences (Holland, 2013). As community college populations become more linguistically diverse, corequisite instructors may have multiple first languages represented in a single class, and as with writing insecurities, linguistic insecurities may affect students' academic self-perceptions. Because of the unique and intense format of the class, it is particularly important to examine student experiences of linguistic insecurity in this setting.

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Library Anxiety

Library anxiety is an additional source of anxiety for students that has been reported by librarians for years; it can cause students to feel overwhelmed and not function effectively in a library setting. In his study of first-year graduate students tasked with writing a research proposal, Onwuegbuzie (1997) defines library anxiety as negative feelings that occur that are situationally specific to library settings. McPherson (2015) found that many students lacked information-literacy skills, which contributed to feelings of confusion and helplessness regarding the campus library. As may be the case with students at other community colleges, students at South Plains College often report feeling overwhelmed by the unfamiliar rules and protocols of an academic library. Constance A. Mellon's seminal 1986 publication "Library Anxiety: A Grounded Theory and its Development" was the first to give the phenomenon a name. She studied personal journals that college students were assigned to keep by their instructors during the research process. Students reported feelings of inadequacy and shame (Mellon, 1986). Of course, the advent of digital library resources may exacerbate these problems, especially as students realize that academic research is quite different from a casual web search. Jean S. Kolliner (2014) argues that librarians and developmental education faculty must work together in developing library instruction. She notes that library skills and writing skills are interrelated (Kolliner, 2014). As at most community colleges, first-year composition courses, and therefore corequisite courses, at South Plains College require an element of research for at least one writing assignment, so library anxiety is an important topic to consider in corequisite course design.

Conclusion

Unfortunately, many developmental composition students at South Plains College have little experience with completing academic writing tasks, especially those involving library research. This lack of experience can exacerbate students' writing, linguistic, and library anxieties and in turn, lead to a reluctance to enroll in a corequisite course in which college-level coursework is paired with the developmental course. Additionally, these anxieties could undermine students' self-perceptions and their abilities to think effectively and complete a complex academic writing project.

Student Academic Self-Perceptions

Student academic performance is not only a result of external environmental factors such as poverty or first-generation status but also of students' ability to anticipate outcomes of their actions and create intentional behavior. According to Bandura's Social Cognitive Theory (1993, 1997), students with low self-efficacy are more likely to psychologically disengage from academic tasks. SCT is an important framework through which to examine corequisite students' experiences because students' previous negative academic experiences coupled with their placement in a corequisite developmental course may further erode their sense of self-efficacy. Shafer (2018) argues that enrollment in developmental courses is a source of shame and perpetuates the divide between struggling students and academic culture.

Most community colleges enroll a diverse group of students and pride themselves on their inclusive atmospheres. However, to create a truly equitable environment, instructors and leaders in developmental education must work to remain informed about and avoid reinforcing students' feelings of low self-efficacy and isolation. Maya K.

Gordon (2016) argues that the media and culture play a role in the negative academic self-perceptions and achievements of African-American students. For these students, racist and stereotyped media and television consumption can influence whether they choose to focus on careers that require a college education and lead them to believe that higher education is not an area where they can succeed (Gordon, 2016). Every American should be encouraged to pursue post-secondary education, not just those who are traditionally represented in academia. Community colleges educate the workforce of tomorrow, and a diverse, educated workforce allows businesses and organizations to draw on different perspectives and create greater impact. In their study of 600 African-American and Latino adolescents, Mathews, Bannerjee, and Lauermann (2014) found that students with a higher sense of self-efficacy also placed a higher value on academics and had a higher sense of belonging. Given the growing numbers of Latinx students in Texas community colleges, improving student outcomes by increasing a sense of belonging and motivation in corequisite students through developing their sense of themselves as capable of academic achievement is more than just a topic of scholarly interest.

Agency in Educational Contexts

Personal agency is an additional critical factor for student success. Mäkitalo (2016) brings together definitions of agency from various sociocultural perspectives and notes that in addition to indicating the ability of humans to act independent of immediate circumstances, it also includes the ability to refrain from acting in certain situations. She points out that the construct of agency is vital to educational reform and is a prerequisite for learning (Mäkitalo, 2016). Students without that ability to refrain from certain

behaviors when necessary (such as skipping class or cheating on an exam) or to act in the interest of their own long-term goals (beginning an assignment well before the due date), especially the underprepared students identified as not college-ready, may not be successful in college-level work despite the extra support of a corequisite model course. Matusov, von Duyke, and Kayumova's (2016) conceptual paper seeks to explore the concept of agency in educational contexts because there is little consensus on the operationalization of the term among educational researchers and practitioners. They categorized the use and meaning of the term "agency" and formed four conceptual frameworks for its use in educational contexts: "1) instrumental, 2) effortful, 3) dynamically emergent, and 4) authorial" (Matusov, von Duyke, & Kayumova, 2016, p. 421). Instrumental agency is particularly important within the context of a corequisite course because it focuses on the capacity for mastery and is used individually. Notably, if the student's effort is spent only on pleasing the teacher rather than on achieving personal goals and desires, the resulting learning is procedural rather than conceptual (Matusov, von Duyke, & Kayumova, 2016). True agency moves beyond simply complying with a teacher to pass a class; students can think beyond the immediate situation when making their decisions. Ideally, a corequisite would support students in gaining personal agency toward carrying out their individual long-term goals along with the reading and writing skills necessary for further college coursework.

In addition to personal agency, collective agency is an important aspect of student success because it allows students to take on the perspectives of others and act on their behalf even when that action does not directly benefit them. Laird (2005) studied social agency along with academic self-confidence and a disposition toward critical thinking in

students at the University of Michigan. He found that there is a strong connection between students' positive experiences with diversity, including diversity classes, and their academic self-confidence and willingness to think critically (Laird, 2005). As the corequisite courses at South Plains College are often made up of diverse students, the diversity itself could have important positive implications for student outcomes and course design. Gillespie (2012) argues that agency is both highly contextualized and gradually learned rather than being a fixed, innate construct. A sense of collective agency will build self-directed, lifelong learners. As Bandura (1993) notes, there is a difference between possessing a skill and effectively utilizing that skill, especially under trying circumstances such as the college transition period; he found that self-efficacy contributes to skill utilization. Knowledge is in itself insufficient for a course of effective action (Bandura, 2012). More research in agency in developmental courses is needed to help serve underrepresented populations and improve student outcomes.

Campus Resources and Interventions

Like most post-secondary institutions, South Plains College offers resources such as tutoring and counseling along with a writing center staffed by faculty and peer tutors; however, students do not always fully utilize the available services. According to Boquet (1999), writing centers were originally linked to remediation and were even seen in the early days as a disciplinary measure. Although campus writing centers are meant to benefit all students, some students may still consider getting help at the writing center to be punitive. Because some students at South Plains College are reluctant to visit the center, an ongoing topic of discussion among faculty members is whether to assign mandatory writing center tutorials to composition students. In their position statement on

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two-year college writing centers, Pennington and Gardner (2006) assert that, ideally, in addition to faculty tutors, students in two-year colleges should have access to peer tutors in writing centers. Joelle Adams (2011) confirmed their idea in a study of peer tutoring for academic support in a UK university. The tutors' self-perception rose, while the students who received tuition improved in the conventions of academic writing (Adams, 2011). The corequisite model lends itself to employing a peer tutoring aspect due to the extended class time available, and this practice could further work toward improving developmental students' academic self-perceptions.

Students also may not make use of the other available on-campus resources that could contribute to their success. In a study of over 96,000 undergraduate and graduate students, Pilar, Cunningham-Williams, and Woodson (2019) found that despite the availability of on-campus mental health resources, most students, especially first-year undergraduate students, were unlikely to access those resources. In the first study of its kind, Bourdon, Moore, Long, Kendler, and Dick (2018) investigated the relationship between student use of on-campus resources such as counseling services, wellness centers, and disability services with anxiety, depression, and alcohol use. They studied 3,734 college sophomores at a large urban university and found that students with alcohol use disorder symptoms were the most likely to seek on-campus services, but there was no relationship between service utilization and anxiety or depression (Bourdon et al., 2018). There is, of course, a presence of anxiety and depression on college campuses, and those may coexist with symptoms of an alcohol use disorder, but it is possible that students simply did not access the available resources when anxiety and depression were not present with other symptoms, possibly due to mental health stigma or a lack of health

insurance. While this study did not investigate writing, linguistic, or other academic anxiety specifically, it does point toward the likelihood that students with these anxieties also would not seek out the available on-campus services. Mental health concerns should be addressed for all students, but they are of particular concern for the success of students who are already facing many barriers to success, and more research is needed to investigate the links between student anxieties and self-perceptions and placement in a corequisite course.

<div align="center">Relationship Between Self-Efficacy and Academic Success</div>

There is considerable research linking self-efficacy and academic success (Bandura, 1997; Bong, 2001; Brown, Lent, & Larkin, 1989; Pajares, 1996; Zander et al., 2018). Recognition of the factors affecting developmental student success is an important concern for community college stakeholders.

Academic Performance

A myriad of factors ranging from extracurricular activities to self-efficacy and motivation can affect academic performance. Zander, Brouwer, Jansen, Crayen, and Hannover (2018) investigated the relationship between the learning-related concepts of academic self-efficacy and growth mindset with student integration in support networks. They found that university students with high academic self-efficacy were more likely to perceive themselves as effectively integrated into academic support networks and, in turn, were more likely to believe intellectual capabilities to be malleable through effort (Zander et al., 2018). When students believe that they have the capability for academic success, they can influence their outcomes. Deemer, Marks, and Miller (2017) examined self-efficacy beliefs as a group-level construct and found that students with high science

self-efficacy influenced their peers and helped them display more behaviors related to self-efficacy. Students in corequisite classes may have had few opportunities to be influenced by peers with high academic self-efficacy, and it is a concern that the corequisite model could perpetuate that lack of opportunity. As Bandura (1997) notes, students' beliefs about their writing abilities and the writing process are crucial to their development as successful writers, so the relationship between being placed in a corequisite model course and students' academic self-perception is an important area of investigation. By understanding students' beliefs, developmental educators and leaders can better assess how they are being affected by the mandated corequisite implementation and add their voices to the public discourse.

Because self-efficacy and student success are so closely tied together, it is essential to investigate how corequisite courses fit in this dynamic. Self-efficacy beliefs can affect not only students' academic careers but also almost all facets of their life experience. If students come into the courses with low self-efficacy, observational learning, peer tutoring, and experiences of mastery could bolster their academic self-perceptions, but being placed into a developmental class with the connotations of failure at a standardized test could counteract any potential gain. Although there has been much scholarly interest in self-efficacy as it relates to academic performance, there is a gap in research on how it relates to Texas community college students enrolled in corequisite courses.

Persistence

Texas' ambitious goal of preparing a globally competitive workforce is predicated upon student persistence and retention. While these are two separate issues, they are often

treated as the same. Hagedorn (2005) notes that according to the National Center for Education Statistics, "retention [is] an institutional measure and persistence [is] a student measure" (p. 6). While institutions can create policies to promote student success, understanding the student perspective of self-efficacy as it relates to placement in corequisite courses will enable them to be more responsive to student needs. In his review of causal tests of self-efficacy, Bandura (2012) found that those with high levels of perceived self-efficacy were more likely to persist in an academic context with high cognitive load and withstand failures and setbacks while those with low perceived self-efficacy were more likely to dwell on perceived personal deficiencies and imagine difficulties as greater than they are. In a study comparing student outcomes of students placed in lengthy developmental course sequences with students of similar academic skills placed in shorter developmental course sequences, Xu (2016) found that students in the longer sequence were more likely to drop out. Additionally, the negative effect on their academic progress lasted beyond the early stages of their college careers. The corequisite model has the potential to ameliorate this problem.

Motivation

Student motivation is also a concern when implementing developmental courses. Sacher (2016) argues that self-efficacy is closely tied to motivation and that students' beliefs about themselves as writers may determine whether they will exert effort on a writing assignment. Students who have previously experienced putting in extra effort without matching the results of their peers could then lose this motivation and be less likely to put in the effort. As previously noted, mastery experiences can increase self-efficacy, so the opposite is probably true as well. In their study of the relationship

between motivation orientation and patterns of achievement in secondary students, Hodis, Meyer, McClure, Weir, and Walkey (2011) found that motivation was a primary reason for discrepancies in achievement. This discrepancy in achievement was particularly true for boys who were not from a majority culture. As most corequisite students are not from majority cultures, they might be more at risk for low levels of motivation. On the other hand, in a within-person study, Vancouver, Thompson, and Williams (2001) examined the role of complacency in motivation and achievement. They argue that "complacent self-assurance" can negatively impact motivation and success as can the difficulty of the goal that participants were trying to achieve, which may be a function of past achievement. If corequisite students have low self-efficacy, they may be unwilling to put forth any effort and overestimate the difficulty of the corequisite course; conversely, if the corequisite students perceive the course as easy and have an overly high perceived self-efficacy, they may also be unwilling to put forth the necessary effort for success in the course.

Conclusion

      Academic self-efficacy directly influences several key components of learning success, including motivation, persistence, and academic performance. If corequisite students do not believe they can complete a college-level writing course, then they are already at a disadvantage when they begin the course. In such situations, students have little incentive to set challenging goals and pursue them (Schunk & Pajares, 2010). If corequisite courses promote positive academic self-efficacy, then students will be more likely to attain their personal academic goals.

Summary of Literature

The literature related to developmental education and self-efficacy describes the hurdles that underprepared students must overcome as they enroll in and persist in developmental courses in college, the problems that community colleges face in serving students with diverse needs, and the current efforts underway by the state of Texas to address some of these issues. The literature also addresses the misalignment between high school and college academics, the cost and stigma of remedial education, and how these together with the lack of mastery experiences along with various academic-related anxieties can lower students' academic self-efficacy, as framed through Bandura's Social Cognitive Theory, and lead to a lack of agency and motivation. Current educational research does not specifically address students' academic self-perceptions and their experience of corequisite remedial education courses.

Conclusion

Community colleges serve many students who are first-generation, low-income, and culturally and racially diverse. These students are disproportionally deemed "not college-ready" and are directed into developmental education. The Texas legislature has recently signed into law the use of the corequisite model as the required model for developmental education. By 2020 Texas public colleges and universities that offer developmental courses must deliver 75% as corequisite models (Smith, 2017). This new model could be a turning point in developmental education, offering students the opportunity to begin college-level coursework immediately with the support of the developmental Integrated Reading and Writing course. The purpose of this mixed-methods study is to investigate academic self-perceptions and lived experiences of

students enrolled in these courses at South Plains College. Through the results of this study, community college stakeholders will develop a more detailed awareness of how these self-perceptions and experiences work together in the academically underprepared student to make the developmental pathway as effective as possible and better serve underrepresented populations. As reflected in the literature, there is a lack of research specifically addressing these constructs together, especially as they pertain to the newly-mandated corequisite course model in Texas. Chapter Three addresses the specific methods for this mixed-methods study.

CHAPTER THREE

Methodology

Introduction

In light of the direct effects of academic self-efficacy on student motivation, agency, and achievement as well as the formidable obstacles underprepared students must overcome concerning their academic self-perceptions, this study focuses on the impacts of the corequisite developmental course model. South Plains College's corequisite courses offer students the opportunity to progress directly into college-level coursework; therefore, the courses have the potential to advance student persistence and achievement because they offer opportunities for students to move beyond past negative writing experiences and master college-level writing, fostering their academic self-efficacy. This study examines the relationships in writing beliefs and academic self-efficacy between students who have completed a corequisite model developmental and gateway course combination and students who have completed the traditional developmental course sequence.

Because community colleges serve many underprepared students who struggle to meet the requirements for a college-level gateway course, administrators and faculty must understand their experiences to better facilitate academic success. South Plains College primarily addresses the needs of underprepared students through developmental education, but any educational system that does not take into account the student experience in developmental education is doing those students a disservice. The Texas governor signed into law HB 2223 in 2017 (Smith, 2017). This bill requires the use of

corequisite remediation for developmental education and mandates that by the fall

semester of 2020, Texas public colleges and universities offering developmental

education courses must deliver 75% of those courses as corequisite models (Smith,

2017). When students who are referred to developmental courses enroll in a corequisite

model course, they may proceed directly to college-level courses with the remedial

course serving as support. This model could shift the developmental education paradigm

and erase barriers to equitable academic outcomes.

The purpose of this mixed-methods study is to amplify South Plains College's

developmental students' voices through an investigation of their lived experiences,

focusing on their levels of academic self-efficacy and their beliefs about writing after

completing corequisite model courses. The approach for this study integrates both

quantitative and qualitative data through the use of an explanatory sequential mixed

methods design. This design involves collecting quantitative data first and then

explaining the results with in-depth qualitative data. In the first, quantitative phase of the

study, self-efficacy and writing beliefs data were collected from developmental students

who completed the gateway composition course, either through the corequisite model or

through the traditional sequential model at South Plains College. This data allowed the

researcher to assess the relationship between academic self-efficacy and writing beliefs

scores as well as the final grade in the college-level gateway course in students who have

completed the corequisite model course combination and students who have completed

the initial developmental course sequence followed by the gateway composition course.

The second, qualitative phase was conducted as a follow-up to the quantitative results to

help explain these relationships. In the follow-up, the plan was to explore self-efficacy

and writing beliefs with two participants (one from each group) at South Plains College. Both phases addressed the following research questions:

> What is the relationship in academic self-efficacy and writing belief scores between developmental students who have completed a corequisite model developmental and gateway composition course combination and students who have completed the traditional sequence of a developmental course followed by the gateway composition course?

> What are the contributions of course sequence type to students' final grade in the gateway composition course?

Researcher Perspective

As an assistant professor in the English department at SPC, I have previously taught sequential model developmental courses although I do not currently teach corequisite courses. During my developmental teaching experience, I noticed that many students did not go on to complete their college-level composition gateway course and, therefore, did not complete their degree or certificate. Unfortunately, this situation left students with fewer career prospects and debt. I believe that corequisite courses have the potential to provide underprepared students with mastery experiences, social persuasion, and positive self-efficacy judgments in a way that sequential courses do not because they offer extended time for support from instructors and interaction with peers. The support built into these courses offers opportunities to elevate students' academic self-efficacy and lead to continued academic progress, which led to my choice of research questions.

Due to my position as a composition instructor and advocate for community college students, I must examine my own biases and potential influence on the study. I began my post-secondary education at South Plains College and have attended classes in the buildings in which I now teach, so I am not emotionally distanced from the study. Additionally, I have extensive knowledge of and access to the data that I have collected.

As Brink (1993) points out, a researcher who is part of a group being studied may lose objectivity and interpret findings selectively. To explore the complex issues of student self-efficacy and writing beliefs as they relate to the developmental course model, I thoughtfully engaged in a researcher-participant role, paying particular attention to coding and triangulation during the qualitative phase of the study. Because I am a member of the faculty at South Plains College, I took great pains to ensure that student participants did not feel pressured to participate, are fully informed of what is expected of them, and had ample opportunity to join or leave the study at any time. Recognizing that what one person says is not always what another person hears, I also employed member checking by going back to some of the members to determine if the data reflects their intended meaning. Another way that I worked to ensure validity and reliability was by looking for contradictions and disconfirmations. Finally, I reflected on my own potential bias and preference when addressing any potential ethical issues.

Mixed methods researchers often build knowledge based on the pragmatist worldview, finding truth in "what works" (Howe, 1998). As Creswell and Plano Clark (2018) point out, pragmatism allows the researcher to employ a practical perspective that values "both objective and subjective knowledge" and abandon the "forced dichotomy between quantitative and qualitative research" (p. 39). This worldview aligns with Social Cognitive Theory (SCT) and its cognitive construct of academic self-efficacy because it combines both postpositivism and constructivism (Creswell & Plano Clark, 2018). According to Creswell and Creswell (2018), postpositivists "need to identify and assess the causes that influence outcomes" (p. 6), while constructivists believe that "meanings are varied and multiple, leading the researcher to look for the complexity of views rather

than narrowing meanings into a few categories or ideas" (p. 8). Stakeholders must think about what works for community college students and how state-mandated course structures manifest in the student experience. This study centers around the actual problem of removing obstacles faced by underprepared students and helping them move forward in their academic progress. If the corequisite model increases students' self-efficacy and then their academic persistence, it will lead toward a more educated populace and a brighter future for these students.

Theoretical Framework

This study uses an *a priori* theoretical framework that guides the research questions, data collection, and data analysis. Albert Bandura's Social Cognitive Theory (SCT) is a psychological model of behavior that states that learning occurs in a social context and is centered on perceptions of efficacy as the foundation of human agency (Bandura 1986, 1993, 1997, 2012). According to Bandura's SCT, "by observing others, people acquire knowledge, rules, skills, strategies, beliefs, and attitudes" (Schunk, 1996, p. 102). Through a reciprocal process, an individual's observations of the actions of others and the consequences of those actions affect their mental processes, which in turn affect their self-efficacy beliefs and their behavior. In addition to one's past experiences and current mental state, the successes and failures of other individuals and one's group are important factors in the development of self-efficacy beliefs (Bandura, 1976). Figure 2 below illustrates the reciprocal process through which efficacy beliefs are determinants and predictors of accomplishment (Pajares, 1996).
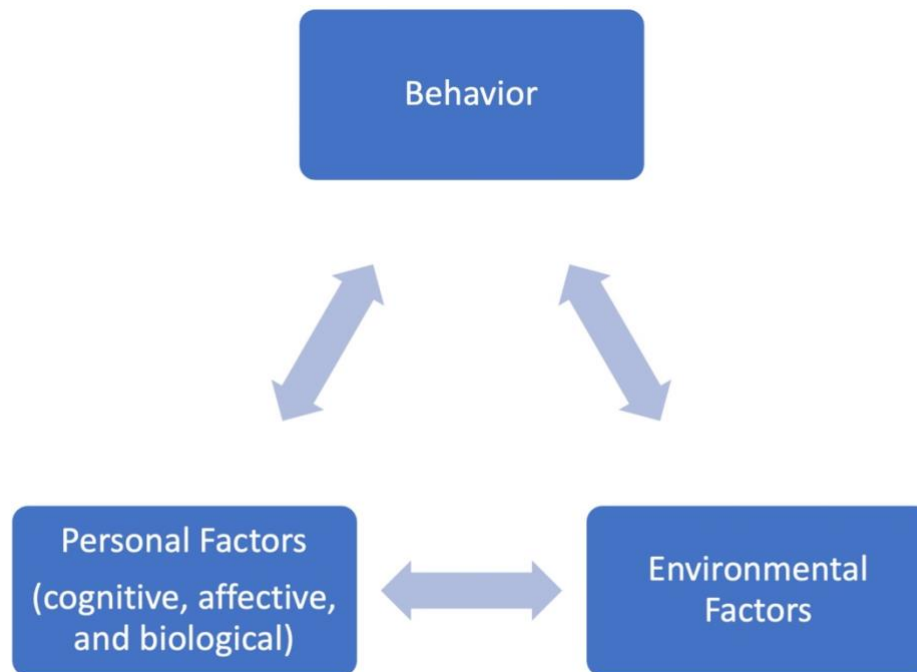
Figure 2. Reciprocal relationship of efficacy determinants (Pajares, 1996).

Prior research indicating the relationship between self-efficacy and academic achievement is extensive (Bong, 2001; Brown, Lent, & Larkin, 1989; Hackett et al., 1992), but the relationship between the experience of a corequisite composition course, self-efficacy, and academic achievement needs investigation. Zimmerman and Bandura (1994) found that placement in advanced college writing courses was more closely related to higher self-efficacy scores than verbal aptitude, and students with higher efficacy beliefs were more likely to practice self-regulatory skills and persist in their writing assignments. In light of this relationship, placement in a developmental course could lead to lower self-efficacy beliefs and, therefore, more problems managing their writing assignments and persisting in their academic activities. The self-efficacy construct of SCT provides a lens that guides the research questions for this study.

According to SCT, personal and environmental factors influence both cognitive and behavioral processes, and the data collection aligns with these factors. Because academic self-efficacy informs persistence and success in a composition course and is influenced by environmental factors, this study investigates the influence of a corequisite course on academic self-efficacy and, therefore, final college-level course outcomes. Through two previously developed instruments, the first, quantitative phase of this study measures the personal constructs of self-efficacy and writing beliefs grounded in SCT, and the qualitative phase offers insights on these topics that further explain the quantitative results. The semi-structured interview questions are linked to the research questions which are oriented around the SCT framework.

The SCT framework also informs the approach to data analysis in this study. According to SCT, learning is social and interactive, and the variables under consideration are shaped by environmental factors and influence human learning (Ormrod, 2016). Because academic self-efficacy is a complex issue, data was collected and analyzed at two different points. The quantitative information collected from the self-efficacy and writing beliefs instruments was analyzed to determine the relationships between the measured variables and the social context students experienced in the two-course models. The qualitative data analysis focuses on students' voices and perceptions and how their developmental course model experiences shaped their self-efficacy beliefs and final gateway course outcomes.

Research Design

This study uses an explanatory sequential mixed methods design (Creswell & Plano Clark, 2018) in which quantitative data is collected first and is then explained with

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in-depth qualitative data. This mixed methods study investigates the academic self-efficacy perceptions and writing beliefs of developmental students completing the corequisite model composition courses and developmental students completing the traditional sequential developmental composition courses at South Plains College along with the students' final grades in the gateway college-level portion of the course pairing. By including a quantitative phase, more students can share their experiences in the course than would be possible in a solely qualitative study. A correlational design allows the researcher to examine relationships between variables because "if the two variables are related, then changes in one variable should be met with similar changes in the other variable" (Field, 2018, p. 251). Additionally, the correlational design of phase one is viable for instances such as this because the randomization of students into either stand-alone or corequisite developmental courses is not possible, and there is no experimental treatment. The groups were already formed by the time the study began, but the researcher sought to examine relationships between variables. The qualitative strand of the study sheds light on why the quantitative results occurred, especially their cultural significance, and how they might be explained.

The notation below conveys the flow of quantitative and qualitative methods in the study. This notation system indicates the primary method with uppercase letters, the secondary method with lowercase letters, and the arrow indicates the sequence (Creswell & Plano Clark, 2018). For this study, quantitative data takes priority in addressing the research questions. The shorthand notation also indicates overall explanatory sequential design because the two data strands are implemented in sequence, and the qualitative results help explain the quantitative results.

QUAN →qual = explain significant factors

The major strength of this explanatory sequential design is that it combines the strengths of two forms of data and allows for insight into the research questions that goes beyond one type of data alone. (Creswell & Plano Clark, 2018). Through this design, the researcher can combine the positivist belief that knowledge is universal and fixed in the quantitative phase with the constructivist belief that the meaning of a phenomenon is constructed through participants' views (Creswell & Plano Clark, 2018). The quantitative phase provides descriptive data that captures relationships in academic self-efficacy and writing beliefs between the two student groups, and the qualitative data describes the characteristics of those variables that cannot be easily reduced to numbers. Additionally, the design allows for minimal disruption for students because they enrolled as usual in their developmental courses according to what worked best for their individual needs without disruption. As Niaz (2008) points out, the addition of qualitative data to quantitative data does not replace it but rather illuminates it and provides a rationale for theories and guiding assumptions. The knowledge gained by the connection and interpretation of the two sets of data captured the nature of developmental composition students' academic self-efficacy and provided a more complete answer to the research questions than would be possible through one type of data alone. Figure 3 below represents the explanatory sequential design process.
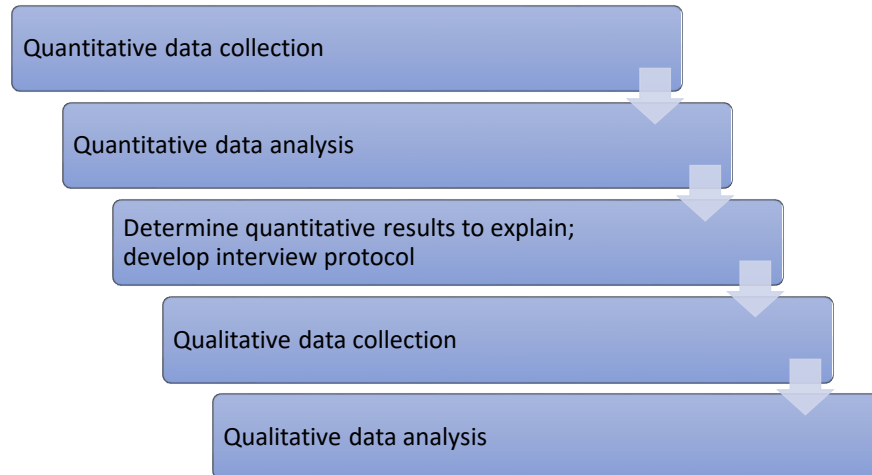
Figure 3. Explanatory sequential design.

Site Selection and Participant Sampling

This study examines developmental composition students enrolled at South Plains College, a two-year community college serving the southern portion of the Texas High Plains. In the fall semester of 2019, SPC had an unduplicated headcount enrollment of 9,179; 46.5% of those students were attending full-time, and 53.5% were attending part-time (South Plains College, 2020a). Approximately 67% of the enrolled students were first-generation college students, and of the certificate or degree-seeking students, 50.9% were federal Pell Grant recipients (South Plains College, 2020a). Of all enrolled students, 96.8% were Texas residents, 49% identified themselves as Hispanic, 41.6% as white, non-Hispanic, and 5.8% as African-American. Before the implementation of the corequisite model course, all underprepared students were assigned to either English 0301, basic developmental English, or English 0302, developmental English, depending on their TSIA scores. In the 2015–2016 academic year, 58.41% of English 0301 students completed the course successfully, and 63.65% of English 0302 students completed the course successfully (South Plains College, 2020b). Students who do not complete the

developmental courses successfully must either re-take the course or pass the TSIA before enrolling in the college-level gateway course.

For phase one of this study, the researcher invited participants from the pool of students (N=946) who have completed corequisite developmental courses at South Plains College between the fall 2018 semester and the fall 2020 semester and from the pool of students (N=39) who completed the gateway composition course at South Plains College who had previously been enrolled in the stand-alone developmental composition course in the same period. For phase two of this study, the researcher selected two students, one from each phase one group, using purposive typical case sampling based on phase one data. This sampling strategy allows the researcher to purposefully highlight participants from phase one whose scores indicate that their experiences are average or typical of students enrolled in the courses (Creswell & Poth, 2018). The researcher recruited the participants via direct SPC email addresses provided by student services, and in the email, students were informed of the purpose of the study, the anonymity of their responses, and were assured that participation was voluntary. Additionally, the researcher provided a participation incentive in the form of a random drawing for a $25 Walmart gift card. Students who completed both surveys were entered into the drawing, and the winner was chosen using a random number generator.

Data Collection

The phase one quantitative data sources for this study were *Self-Efficacy for Learning Form–Abridged* (SELF–A) assessing students' self-efficacy beliefs regarding various areas of academic functioning (Zimmerman & Kitsantas, 2007). and the revised *Writing Beliefs Inventory* assessing students' implicit beliefs about understanding and

completing the writing task influence cognitive processes, motivation, and behavior in a composition course (White & Bruning, 2005). The researcher invited students to participate who had completed the gateway college-level portion of the composition course pairing. Additionally, the researcher collected final grades in the course from student records. The researcher compiled the survey response data and the final course grade data in Excel spreadsheets and then uploaded it to SPSS, a statistical data analysis software program. In the second, qualitative, phase two case studies, one from each participant group, explored in-depth the results of the statistical tests employed in phase one.

The two previously developed instruments are most appropriate for phase one for several reasons. First, in the research questions, specific outcome criteria are developed from the SCT framework that forms the central components for this study and can be measured through the *Self-Efficacy for Learning Form–Abridged* (SELF–A) and the *Writing Beliefs Inventory* which were developed for other studies. Additionally, the two instruments are both valid and reliable. The 19-item SELF–A assesses students' confidence with academic skills such as studying, time-management, and taking notes and is a single factor structure with a Cronbach's alpha reliability coefficient of .98 (Zimmerman & Kitsantas, 2007). The revised *Writing Beliefs Inventory* derives from social learning theory and was created to measure implicit transactional and transmissional beliefs about writing (White & Bruning, 2005). White and Bruning (2005) based their inventory on the model of a previously developed reading beliefs inventory to apply the transmission-transaction idea to writing. The 20-item revised WBI has an

overall Cronbach's alpha of .73, indicating the acceptable measurement of the variables of interest (White & Bruning, 2005).

For phase two of the study, the researcher grounded the interview protocol in results from the first quantitative phase of the study. Through the interviews, the researcher sought to illuminate how course design correlated with academic self-efficacy, writing beliefs, and final grades in the gateway composition course. Within two weeks of the quantitative data collection phase, the researcher facilitated 30 to 45-minute interviews through Zoom, due to the COVID-19 practices in place and convenience for the participants. An advantage of using semi-structured interviews is the opportunity to ask follow-up questions and probe further if needed to collect additional data concerning the research questions. The researcher recorded the interviews on Zoom, and the video recordings and notes were password protected and kept in a secure location. Additionally, the researcher protected the participants' personal information through the use of pseudonyms. The transcription occurred with the help of the Otter app, which offers the ability to list repeated words from the interview that will help in the analysis process. The researcher took notes by hand using a graphic organizer during interviews because it is more unobtrusive than typing, and it allowed the researcher to ensure that key data was not missing.

The purpose of these interviews was to acquire in-depth knowledge of the role of course design in academic self-efficacy and final gateway course grade that builds on the data collected in phase one, and participants for phase two were selected using purposive sampling to identify the typical experience of students in each course model. As Creswell and Plano Clark (2018) point out, the qualitative phase of an explanatory sequential

design is intended to "explain the mechanisms through qualitative data that shed light on why the quantitative results occurred and how they might be explained" (p. 77). The questions were finalized after analyzing the results of phase one to provide greater detail about students' experiences with academic self-efficacy and writing beliefs in both the corequisite course and the sequential course. The interview protocol was open-ended based on the variables and regarding issues such as academic self-perceptions and writing anxiety with a set of five questions to be explored according to the researcher's discretion (Corbetta, 2003).

Data Analysis

To examine the first research question in phase one of the study, two independent groups of developmental composition students (corequisite and sequential course participants) are being compared based on academic self-efficacy and writing beliefs after completion of the gateway college-level portion of the course pairing. The analysis began with a descriptive analysis of the quantitative data in SPSS to look at the means and standard deviations of each variable to note whether the means and error were similar within the two groups, but data of this sort is not well summarized by means and standard deviations, so additional statistical tests were necessary to determine the relationship between the two groups and each variable. Because the self-efficacy and writing belief inventories produce ordinal-level data and not continuous, the assumptions of the linear model are violated (Field, 2018). Additionally, the dependent variables are ordinal, and the independent variable consists of two independent, categorical groups that do not overlap. Therefore, the *Independent Samples Mann-Whitney U* test, a non-parametric test, is the best choice to compare each relationship and address the research question (Field,

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2018). It is used to compare two conditions with different participants when the data violates the assumptions of normality (Field, 2018).

To examine the second research question in phase one, gateway composition course final semester averages were collected from student records. Because the final grades were letter grades rather than numerical grades, this data set also contains ordinal data. Therefore, an *Independent Samples Mann-Whitney U* test is the appropriate statistical test when the purpose of the research is to compare the final grades of the two groups who differ from each other in course type (Field, 2018). The assumptions of normality and homogeneity of variance were assessed using the *Kolmogorov-Smirnov* test and *Levene's* test for equality of variance.

For the second, qualitative phase of the study, the goal is to explain the results from phase one. Based on the SCT framework, the coding process followed Creswell and Poth's (2018) data analysis spiral helped by NVivo, a qualitative analysis software. The first loop in the spiral includes an initial reading of the data to manage and organize it into digital files. Next, the researcher read the transcripts again to write notes and memos identifying overarching ideas. The memos provided a means of integrating ideas and tracking theme development (Creswell & Poth, 2018) The researcher then moved on to the next step in the spiral: describing and classifying codes into themes. Coding involves aggregating the data into categories in order to establish themes and patterns, and the researcher assigned codes through the lens of Social Cognitive Theory. Prefigured codes include parts of research questions, elements of SCT, and significant quotes; however, the researcher was open to additional codes that reflect the participants' lived experiences. The next step in the spiral is developing and assessing interpretations

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(Creswell & Poth, 2018). For this study, interpretation was approached through the lens of SCT to determine the interactions between course models, self-efficacy, and writing beliefs in students' developmental and gateway course experiences. The final phase of the data analysis spiral consists of representing and visualizing the data. A review of phase two data by key participants ensured interpretations and context were valid (Creswell & Poth, 2018). Figure 4 below illustrates the interrelated analytic circles of the data analysis spiral.
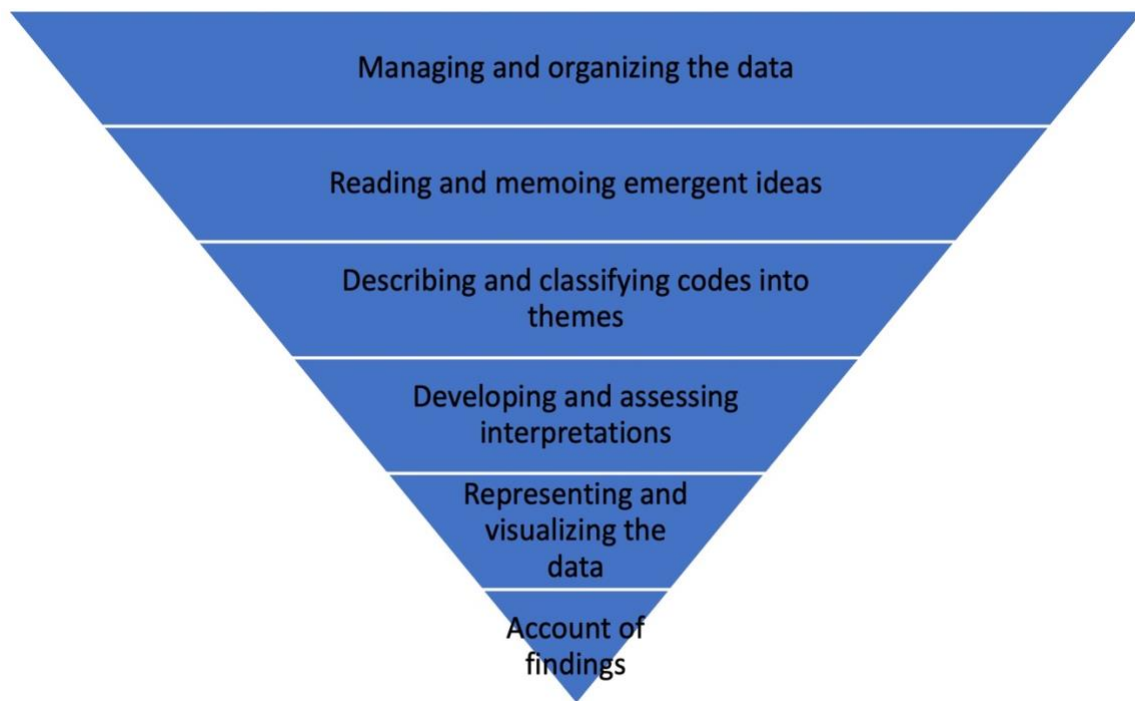
Figure 4. Data analysis spiral. The wording in this figure is quoted from Creswell and Poth (2018, p. 185).

Table 1 below details the explanatory sequential design procedures and products. It provides an overview of the steps in the two-phase design as well as the points of integration. Integration first occurs after phase one quantitative data have been analyzed and then again after phase two qualitative data have been analyzed and are then

connected to the results from the initial phase. Finally, the researcher draws conclusions about how the results of phase two clarify the results from phase one (Creswell & Plano Clark, 2018).

Table 1

Diagram of Explanatory Sequential Study Design, Procedure, and Product

Phase	Procedure	Product
Quantitative Data Collection	• Variables stem from SCT • Participants from the corequisite group (n=47); participants from the sequential group (n=14) • *Self-Efficacy for Learning Form – Abridged* (SELF–A) • *Writing Beliefs Inventory* (WBI) • Final course grades in the composition course for corequisite students (n=946) and standalone plus gateway completers (n=39)	• Numeric data
Quantitative Data Analysis	• Data screening • Frequencies • *Mann-Whitney U test* • *Kolmogorov-Smirnov* test • SPSS software	• Descriptive statistics, missing data • Central tendencies • The value of U • Significance level • The value of p
Case selection; interview protocol development	• Developing 5 semi-structured interview questions based on SCT variables • Purposive case selection based on typical response; one from each group (n=1)	• Cases(n=2) • Finalized interview protocol
Qualitative data collection	• Individual in-depth interviews via Zoom with 2 participants • Email follow-up for member checking	• Text data (interview transcripts and notes)
Qualitative data analysis	• Managing and organizing data • Reading and memo-ing emergent ideas • Classifying into themes • Developing and assessing interpretations • Visualizing data • NVivo software	• Codes and themes based on SCT • Similar and different themes and categories • Visual model of case analysis
Integration of the quantitative and qualitative results	• Interpretation and explanation of the quantitative and qualitative results	• Discussion • Implications • Future research

Ethical Considerations

Researchers should possess the knowledge and experience to perform appropriate research. This study design allows for a researcher who is currently experienced in developmental education and Texas community colleges to perform the process appropriately. Effective and honest communication allows researchers to ensure that the study is relevant and helpful to the stakeholders and allows them to capture how the program is affecting participants. Open communication also guards against focusing the study on the wrong variables or research questions (Creswell & Creswell, 2018). This design allows the researcher to be in communication with campus administrators and faculty as well as the students themselves. Research participants must be provided with sufficient information to enable them to make an informed decision about participation (Creswell & Creswell, 2018). The researcher has framed the information in such a way that potential participants understand the benefits of participating in the study for themselves and the college but also any potential risks. The purpose and procedures of the study were clearly outlined.

Limitations and Delimitations

The potential limitations of this design should be noted. This study is not a longitudinal study. Therefore, it could reflect academic self-efficacy perceptions and writing beliefs only after the initial completion of the college-level gateway composition course and not the students' long-term writing beliefs and self-efficacy levels that could affect their continued academic success. Also, because the students are not randomly assigned to the corequisite or sequential course designs and there is no experimental treatment, inferences of causality are not applicable. South Plains College's shift to

online, hybrid, and flex courses due to COVID-19 could also affect developmental students' levels of self-efficacy and their writing beliefs beyond anything covered in the current study.

This study is confined to developmental composition students enrolled at South Plains College. Additionally, while SCT encompasses a range of factors influencing human learning and behavior, this study narrows the focus to academic self-efficacy and writing beliefs. The goal of this study was to paint a picture of developmental composition students' experiences at South Plains College rather than attempt to examine developmental mathematics students' experiences or students' experiences at other community colleges. The explanatory sequential design of this study allows for a depth of knowledge that might not be possible with quantitative or qualitative data alone.

Conclusion

Underprepared students present a significant challenge in the state of Texas' efforts to raise educational attainment in postsecondary institutions. A student's early college experiences and levels of success are critical to degree completion (Tinto, 2012). One of the key concepts in increasing student persistence, agency, and motivation is self-efficacy (Bandura, 1997; Gordon, 2016; Matthews, Banerjee, & Laurmann, 2014; Zander et al., 2018). The structure of the corequisite model means that students immediately begin college-level work with the developmental course serving as support as opposed to the traditional sequential model requiring one or more semesters of developmental coursework before beginning college-level gateway courses. As Texas strives toward the goal of increasing the educational attainment of its citizens, understanding the student experience of corequisite courses may support educators and policymakers in their

remediation and retention efforts. This study adds to the available literature on

corequisite courses and takes the unique approach of examining student experiences and

academic self-perceptions related to the corequisite model.

CHAPTER FOUR

Results and Implications

Introduction

As previously mentioned, the purpose of this study was to investigate the lived experiences of South Plains College students enrolled in the corequisite and sequential models of developmental composition education, including their academic self-efficacy and writing beliefs. This study used an explanatory sequential mixed methods design in which the quantitative data were collected first and were then followed by explanatory qualitative data. In the first phase of the study, the quantitative data sources included the *Writing Beliefs Inventory (WBI)*, which included assessments of students' transactional and transmissional writing beliefs, the *Self-Efficacy for Learning Form–Abridged* (SELF–A), which assessed students' self-efficacy related to learning tasks, and students' final grades in the gateway composition course.

The researcher collected the quantitative results following the completion of the college-level portion of the composition course pairing. The second, qualitative, phase of data collection began within two weeks of completion of the quantitative phase and included explanatory interviews with two purposefully selected individuals whose quantitative scores were typical for each group. The researcher data analyzed the data based on an *a priori* theory, Bandura's Social Cognitive Theory (SCT), focusing primarily on the self-efficacy construct as it relates to writing (Bandura, 1993, 1997, 2012).

The data collected addressed the following research questions:

What is the relationship in academic self-efficacy and writing belief scores between developmental students who have completed a corequisite model developmental and gateway composition course combination and students who have completed the traditional sequence of a developmental course followed by the gateway composition course?

What are the contributions of course sequence type to students' final grade in the gateway composition course?

This chapter will first present findings from the quantitative phase of the study followed by the results of the qualitative phase. Finally, the chapter will explain the integration of the results and the implications of those results.

Quantitative Results

The results presented in the following sections are based on data collected from students who completed a corequisite composition course or a developmental course followed by the gateway composition course. Eligible participants completed the gateway course between the fall semester of 2018 and the fall semester of 2020. The three sections below each discuss the results of one of the quantitative data sources for the first phase of this mixed methods study.

Writing Beliefs Inventory

The first source of quantitative data addressing the research questions came from the *Writing Beliefs Inventory (WBI).* This instrument measures writing beliefs as a concept originating in Bandura's (1986) SCT. Social Cognitive Theory emphasizes the role that self-referent thinking plays in guiding behavior and the display of knowledge, which indicates that students' beliefs about writing influence their motivation and writing performance. White and Bruning (2005) developed the instrument to measure students'

transmissional and transactional writing beliefs. Students with high transmissional beliefs see writing as a method of transferring information from authoritative sources to the reader. Students with high transactional beliefs see writing as engaging emotionally with writing to develop understanding (White & Bruning, 2005). These beliefs influence the quality of students' writing. For instance, students with "predominantly transactional writing beliefs (e.g., a high transactional-low transmissional belief configuration) would demonstrate higher levels of affective and cognitive engagement during the writing process" (White & Bruning, 2005, p. 168). Additionally, White and Bruning (2005) found that writing beliefs correlated with motivational factors. The 20-item revised *WBI* measures transmissional and transactional beliefs independently.

Forty corequisite students and nine sequential students completed the *WBI* online. The researcher distributed the survey via school email to all eligible students who completed either the corequisite course or the sequential course sequence between Fall 2018 and Summer II 2020. Students who dropped the course or otherwise did not complete the gateway course portion were not eligible to participate. The survey did not collect student names or demographic information. The scores for transactional and transmissional beliefs were calculated separately by taking an average of the items for each area for each participant. The mean score for both groups of students was slightly higher for transactional beliefs in comparison to transmissional beliefs as shown in Tables 2 and 3 below.

Table 2

Corequisite Course Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Transactional Beliefs	40	2.53	5.00	3.8628	.52294
Transmissional Beliefs	40	1.80	5.00	3.2650	.75568
Valid N (listwise)	40				

Table 3

Sequential Course Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Transactional Beliefs	9	2.87	4.47	3.8533	.52650
Transmissional Beliefs	9	3.20	4.00	3.6444	.31269
Valid N (listwise)	9				

As seen below in Table 4, transmissional writing belief scores in corequisite students did not differ significantly from sequential students after completion of the gateway course, U= 247.500, z=1.75, p =.081.

Table 4

Independent-Samples Mann-Whitney U Test Summary Transmissional Beliefs

Statistical Tests	Results
Total N	49
Mann-Whitney U	247.500
Wilcoxon W	292.500
Test Statistic	247.500
Standard Error	38.554
Standardized Test Statistic	1.751
Asymptotic Sig.(2-sided test)	.080
Exact Sig.(2-sided test)	.081

As Table 5 indicates, transactional writing belief scores in corequisite students did not differ significantly from sequential students after completion of the gateway course, $U = 200.000$, $z = .518$, $p = .081$. Due to the p values from the *Mann-Whitney U* tests, the researcher has retained the null hypothesis (H0) and concluded that there are no significant differences in either transmissional or transactional writing beliefs between groups.

Table 5

Independent-Samples Mann-Whitney U Test Summary Transactional Beliefs

Statistical Tests	Results
Total N	49
Mann-Whitney U	200.000
Wilcoxon W	245.000
Test Statistic	200.000
Standard Error	38.611
Standardized Test Statistic	.518
Asymptotic Sig.(2-sided test)	.604
Exact Sig. (2-sided test)	.620

According to White and Bruning (2005), transmissional beliefs "reflect limited cognitive and affective engagement during writing" (p. 166). Both groups scored high in this area, which suggests that both groups view writing a simply transmitting information from an authority to the reader rather than viewing writing as a more complex method of knowledge transformation. However, both groups also scored high in transactional beliefs. White and Bruning (2005) describe students with high transactional beliefs as "personally and critically construct[ing] the text by actively integrating their own thinking into the process" (p. 168). The two types of implicit writing beliefs seem to conflict with one another, so by scoring high in both areas, students seem to be holding

beliefs that writing is simultaneously a passive act of "telling" information and an active complex knowledge transaction. Perhaps the participants view the two as dependent upon the writing context and do not view them as incompatible.

Self-Efficacy for Learning Form–Abridged

The second quantitative data source for addressing the research questions was the *Self-Efficacy for Learning Form–Abridged* (*SELF–A*). The *SELF–A* assesses areas of academic functioning such as studying, note-taking, and time-management. Students indicated their self-confidence in each item using a 0–100-point scale in 10-point increments, ranging from 0% (definitely cannot do it) to 100% (definitely can do it). Higher scores indicate higher academic self-efficacy (Zimmerman & Kisantas, 2007). Along with the *WBI*, this survey was distributed via school email to all eligible students who completed either the corequisite course or the sequential course sequence between Fall 2018 and Summer II 2020. The final self-efficacy score was calculated by averaging the rankings for all 19 questions for each participant.

Forty-seven corequisite students and fourteen sequential students completed the *SELF–A* online. As shown in Table 6 below, the mean self-efficacy score for the sequential students was slightly higher than that of the corequisite students.

Table 6

Descriptive Statistics

Course Type		N	Minimum	Maximum	Mean	Std. Deviation
Corequisite	Self–A Score	47	40.00	100.00	77.7309	15.66701
	Valid N (listwise)	47				
Sequential	Self–A Score	14	51.57	100.00	81.9514	15.44919
	Valid N (listwise)	14				

As indicated in Table 7, self-efficacy scores in corequisite students did not differ significantly from sequential students after completion of the gateway course, $U =$ 387.00, $z = .996$, $p = .319$. Table 8 indicates that due to the p values from the *Mann-Whitney U* tests, the researcher has retained the null hypothesis (H0) and concluded that there are no significant differences in self-efficacy scores between groups.

Table 7

Independent-Samples Mann-Whitney U Test Summary

Statistical Tests	Results
Total N	61
Mann-Whitney U	387.000
Wilcoxon W	492.000
Test Statistic	387.000
Standard Error	58.257
Standardized Test Statistic	.996
Asymptotic Sig. (2-sided test)	.319

Table 8

Hypothesis Test Summary

Null Hypothesis	Test	Sig.	Decision
The distribution of Self–A Score is the same across categories of Course Type.	Independent-Samples Mann-Whitney U Test	.319	Retain the null hypothesis.

Figure 5 (below) illustrates the overall spread of the data and indicates how many students' overall self-efficacy scores fall into each category.

Independent-Samples Mann-Whitney U Test
CourseType
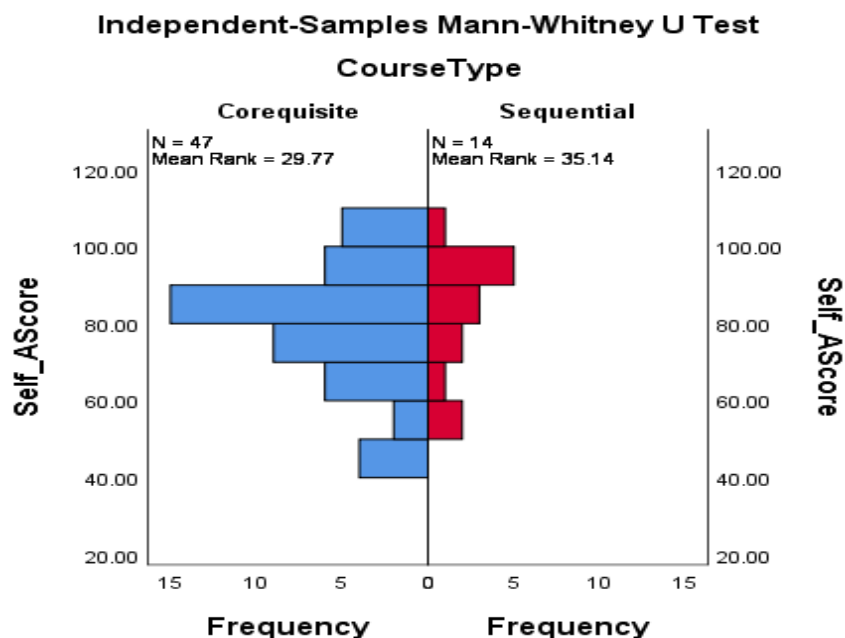
Figure 5. Frequency distribution of *SELF–A* scores.

When learners underestimate their academic abilities, they are likely to avoid academic tasks, but when they have high academic self-efficacy and believe they can complete a task successfully, they are more likely to engage in that task (Bandura, 1976, 1986, 1993, 2012; Pajares, 1996; Schunk & Pajares, 2010). Additionally, self-efficacy is predictive of learners' performance (Bong, 2001; Bong & Skaalvik, 2003). While corequisite students' self-efficacy scores were slightly higher than those of sequential students, both groups believed that they could accomplish academic tasks.

Final Grade Comparisons

Additionally, the researcher collected the final letter grades from the gateway course for all students who completed and received credit for either the corequisite course pairing (N=946) or the sequential course sequence including the gateway composition course (N=39). Verified final grades were anonymized and collected from SPC student

records. While the final grades of the survey participants were included in this data, they were not connected or matched to the survey results and were not considered in the selection of the phase two participants.

Table 9, below, indicates the distributions of the final course grades for each group. For both groups, B was the most common final grade followed by C, A, and D.

Table 9

Enrolled Course Verified Grade Letter

Course Type			Frequency	Percent	Valid Percent	Cumulative Percent
corequisite	Valid	D	89	9.4	9.4	9.4
		C	225	23.8	23.8	33.2
		B	408	43.1	43.1	76.3
		A	224	23.7	23.7	100.0
		Total	946	100.0	100.0	
sequential	Valid	D	7	17.9	17.9	17.9
		C	10	25.6	25.6	43.6
		B	14	35.9	35.9	79.5
		A	8	20.5	20.5	100.0
		Total	39	100.0	100.0	

As indicated below in Tables 10 and 11, final gateway course grades for corequisite students did not differ significantly from sequential students, $U = 16250.500$, $z = -1.334$, $p = .182$. Due to the p values from the *Mann-Whitney U* tests, the researcher has retained the null hypothesis (H0) and concluded that there are no significant differences in final letter grades between groups. In Table 10, asymptotic significances are displayed. The significance level is .050.

Academic self-efficacy judgments affect academic motivation and achievement (Pajares, 1996). Since both groups indicated relatively high self-efficacy scores, perhaps

it is not surprising that the difference in final gateway course grades for each group were similar. Additionally, both groups expressed similar implicit writing beliefs, and their engagement in academic writing tasks resulted in similar grades. While writing beliefs and academic self-efficacy are not hypothesized to be directly linked to grades in a composition course, participants' similar perceived capabilities and levels of cognitive engagement in writing tasks could affect behavioral intentions and actions which then result in similar final grades (Pajares, 1996).

Table 10

Independent-Samples Mann-Whitney U Test Summary

Statistical Tests	Results
Total N	985
Mann-Whitney U	16250.500
Wilcoxon W	17030.500
Test Statistic	16250.500
Standard Error	1646.053
Standardized Test Statistic	-1.334
Asymptotic Sig. (2-sided test)	.182

Table 11

Hypothesis Test Summary

Null Hypothesis	Test	Sig.	Decision
The distribution of Enrolled Course Verified Grade Letter is the same across categories of Course Type.	Independent-Samples Mann-Whitney U Test	.182	Retain the null hypothesis.

Summary of the Quantitative Results

According to the sources of quantitative data, there were no statistically significant differences in self-efficacy and writing belief scores between developmental students who have completed corequisite model courses and those who have completed the traditional sequence of a developmental course followed by the gateway course. Additionally, there was no statistically significant difference in the final gateway course letter grade between course types. The corequisite group did not differ significantly from the sequential group on any of the quantitative measures collected for this study.

Qualitative Results

The purpose of the second, qualitative phase of the study was to illuminate and explain the quantitative results (Creswell & Plano-Clark, 2018). The two phases of the study were connected by the case selection and the development of the interview protocol. Two typical respondents, one from each group, were selected for the qualitative phase based on the mean scores of both groups on the *WBI* and *Self–A*.

Procedures

The interview protocol was developed to explain in more depth and provide more insight into the results of the quantitative phase. Because of the explanatory sequential design of the study, the interview questions were grounded in the statistical results of the three points of data collection from the first, quantitative phase. The protocol consisted of five open-ended questions. The first question was intended to set participants at ease (Creswell & Creswell, 2018) and to obtain details of their development course type. The content questions asked about different facets of writing beliefs and academic self-

efficacy addressed in the research questions and the quantitative results with additional probes asking for more information or an explanation (Creswell & Creswell, 2018).

Because each participant provided an email address when completing the *SELF–A* and the *WBI*, the researcher was able to email the participants to schedule the interviews. The participants were reminded of the purpose of the study and offered a range of possible interview dates, times, and modes. The researcher indicated the ability to either meet face-to-face, following COVID protocols, or via Zoom. Both participants indicated a preference for Zoom meetings, which were scheduled within days of the interview request. The Zoom meetings lasted between 30 and 45 minutes and were recorded through both Zoom and Otter, and the researcher took notes during each interview. The researcher checked the transcripts for accuracy by comparing them to the audio and revised any inaccuracies. The researcher read the transcripts again and memoed emergent ideas. Next, the researcher coded the transcripts by hand and then again using NVIVO. The videos and transcripts were password protected and only available to the researcher, and the researcher created a pseudonym for each participant.

The researcher analyzed the qualitative data based on Bandura's (1994) sources of self-efficacy: mastery experiences, vicarious experiences, social persuasion, and somatic and emotional states. In particular, the researcher was interested in the presence of these four main sources of influence in participants' experiences in developmental composition and how they impacted academic self-efficacy and writing beliefs. As Bong and Skaalvik (2003) point out, self-efficacy beliefs are more predictive of learners' academic performance than self-concept, so the researcher was interested in further investigating the specifics of how the participants' developmental courses influenced their self-

efficacy. The qualitative research findings highlighted in this chapter augment the quantitative findings from the first phase of the study.

Participant 1: Sequential Student (Zoe)

> So, I had a great experience because without the integrated reading and writing [developmental course], I couldn't do this, in English Composition I, without that class. Because that class helped me a lot about the grammar, the punctuation, the fragments, all of the things that writers should know.
> (from the interview with Participant 1)

Zoe is a mature and outgoing part-time SPC student who took the developmental support course first and then took the gateway composition course in a subsequent semester. She seems happy to discuss her experiences in writing at SPC. English is her second language, and while she had previously taken some English courses, she was not confident in her ability to write in English when she began her developmental course at SPC. She views writing as essential to her success in her future courses: "I think for me, English is the priority. If I learn how to write, then definitely I can do better in other courses." Zoe seems to understand writing as a way to develop her thinking and accomplish her rhetorical goals.

Zoe's current high level of writing self-efficacy seems to have been informed by all four of Bandura's (1994) major contributors to self-efficacy, but as might be expected due to the shift to online and socially distant instruction in response to COVID, vicarious experiences and social persuasion lagged behind mastery experiences and emotional state. Bandura's (1994) Social Cognitive Theory stipulates that mastery experiences are the primary means of changing self-efficacy beliefs and, therefore, behavior. While Zoe mentioned her stress levels and emotional states more often than she mentioned mastery experiences, the mastery experiences seemed to have a particularly striking effect on her

perceptions of academic self-efficacy. For instance, she stated that seeing her grades increase and seeing her progress from one writing assignment to the next helped her to understand that "writing is a kind of process, and when you have to practice continuously, it's better." Additionally, she pointed out that because of her developmental course, she understands that "if I learn to write then definitely, I can do better in other courses." In particular, she mentioned a writing assignment for an art appreciation class that she believes she did well on because of the skills she learned in her composition course. Zoe's mastery experiences in her composition course sequence contributed to her attainment of success in another course. Figure 6 illustrates the number of coding references for Zoe's sources of self-efficacy information.
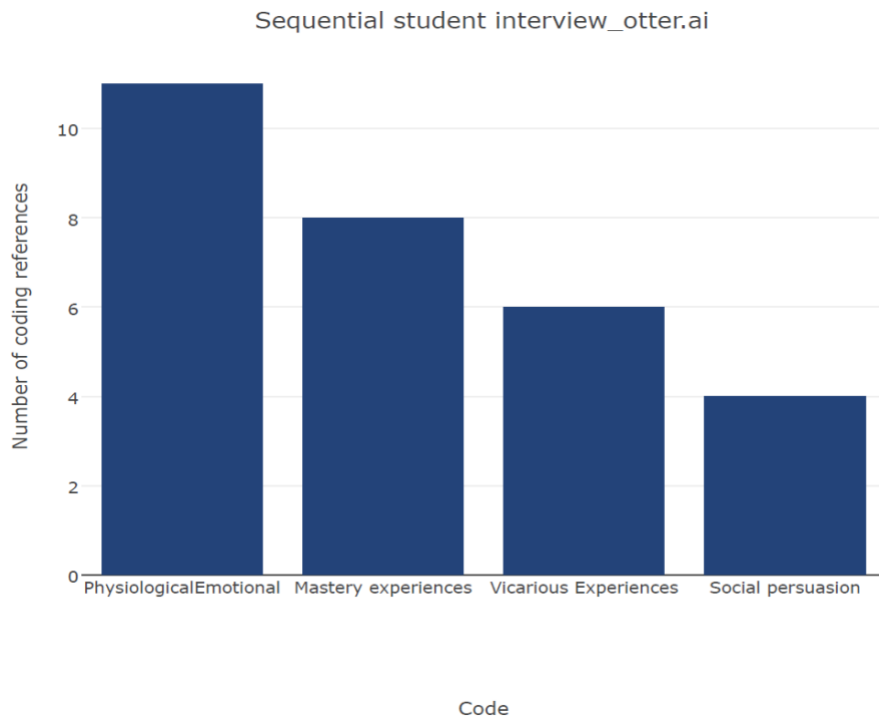

Figure 6. Participant 1 self-efficacy sources.

Zoe's emotional reactions to writing shifted from the beginning of her developmental course to the completion of her gateway composition course. At the beginning of her developmental course, she felt scared and worried. "The first week, I was scared: the whole process, working with Blackboard, with MindTap, how this process is going to work." However, now that she has completed both courses, she states that "I am really satisfied with these two classes because it's really helped me to improve my writing. I can remember when writing was difficult for me, and now I can see that writing is enjoyable for me." However, Zoe still experiences insecurity when speaking in English despite her positive sense of self-efficacy in writing: "Writing is my newest skill in English, but now I think it is my speaking that is my problem with English." The mastery experiences in writing helped her overcome her feelings of anxiety and self-doubt, which then helped her feel more secure and confident in her writing abilities despite her continued concern that she is expressing herself poorly in speech.

Zoe's experiences with social persuasion occurred with her professor and the librarian. Assurances that success is possible boost self-efficacy beliefs, but the boost can be lost when the student later does not meet with success. When asked about experiences with classmates or instructors, she noted that:

> I actually contacted the librarian a lot, and I had a lot of research. I didn't work with the library before, but in this semester, I learned how to find articles, how to talk with the librarian and ask about citations, things like that.

She also pointed out that when she had questions or concerns about her writing or "felt stuck," she went to her professor to get help. The librarians and her professors helped her understand her capabilities to master her assignments. As Bandura (1994) points out, social persuasion alone is unlikely to boost self-efficacy, and negative social persuasion

can easily undermine it, but these positive interactions with her professor and the librarians helped her overcome self-doubts. In addition, because she was successful in her writing assignment, her positive self-efficacy beliefs were confirmed.

Vicarious experiences can be a powerful source of self-efficacy because they provide a model for thinking and behavior, the more similar to the observer, the more persuasive to the observer's self-efficacy (Pajares, 1996; Schunk & Pajares, 2010). Vicarious experiences as a source of self-efficacy were limited for Zoe due to COVID restrictions beginning during her developmental course, so she missed opportunities to observe effective writing skills in her peers. However, she was able to participate in peer review sessions online during both courses and found a friend to discuss assignments with: "Because of the corona situation, the students couldn't connect too much with each other, but I found a friend. She asked me questions about how to start an essay or other questions." While she considered these interactions positive and they allowed her to observe other students' successful experiences with the assignments, they did not impact her self-efficacy as significantly as they might have if her courses had continued in a face-to-face format as originally planned.

Additionally, Zoe spoke specifically about her sequential course design. She is a part-time student and mentioned that the corequisite model of taking the developmental course and the gateway course at the same time, a course load of six semester hours, would have been difficult for her. She also pointed out that because English is not her first language, learning the grammar and punctuation rules and having practice creating short assignments was beneficial in helping her feel ready to write at the college level. She said that "last semester helped me to improve this semester," and "it's better to have

them separated." The sequential developmental course itself served as a mastery experience for Zoe. Her success in the developmental course helped her develop a resilient sense of efficacy (Bandura, 1996). Additionally, Zoe found it valuable to have a sense of control over her own course schedule and not be forced to enroll in six semester hours of English at once. A sense of autonomy is a basic human need that is likely to lead learners to be more intrinsically motivated (Deci & Ryan, 1985). Her experiences in the developmental courses seemed to positively impact her academic self-efficacy and autonomy and help her feel more prepared for the gateway course and, in turn, future academic writing tasks.

Participant 2: Corequisite Student (Clarissa)

> But now that I've taken the prereq and the comp together, I'm so glad that I did that because, yeah. I'm definitely more prepared for government, history, all the other courses I'm going to take. I feel like I got the tools I needed to move on. (from the interview with Participant 2)

Clarissa is a cheerful and outgoing nontraditional student who graduated from high school almost 20 years ago and is currently working full time, parenting two children, and attending SPC full time pursuing a degree in business. She took the corequisite course online as it fits better with her schedule. While Clarissa had been successful in her English classes in high school, she decided to take the corequisite course rather than attempting the Texas Success Initiative Assessment (TSIA), which could have allowed her to enroll in the gateway composition course without the developmental support course if she had passed it. She felt that she probably could have passed the reading and writing sections of the exam, but she was concerned about the math section and also mentioned having anxiety over any testing situation: "I hate any test. I think that's my fear about taking the TSI. I'm fearful of seeing my failure."

Clarissa's emotional reaction to testing affected her perceived self-efficacy. Figure 7 illustrates the number of coding references for Clarissa's sources of self-efficacy information.

Corequisite student interview_otter.ai
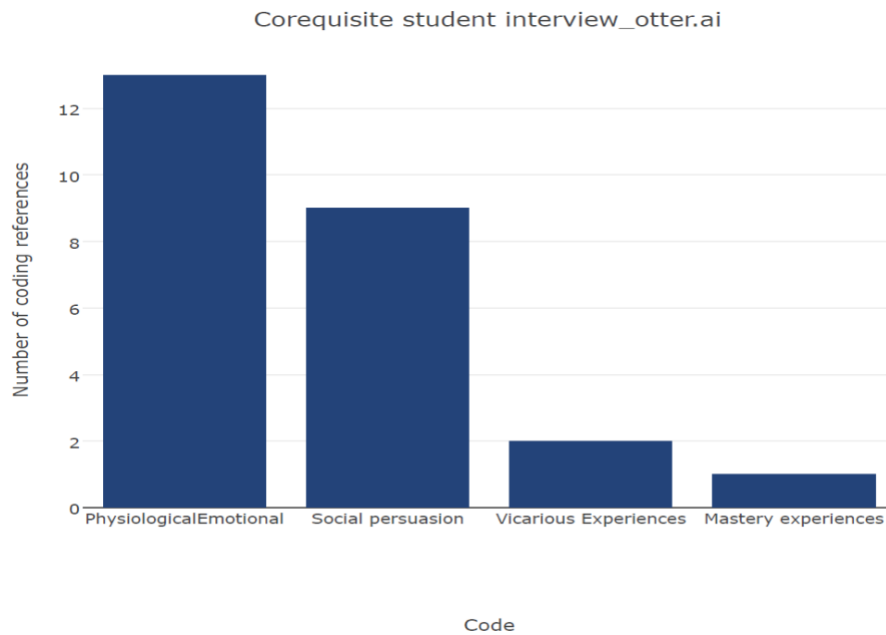
Figure 7. Participant 2 self-efficacy sources.

Despite Clarissa's test anxiety, she has high writing self-efficacy, which was shaped by multiple sources. Social persuasion from teachers and physiological and emotional experiences emerged as the most often mentioned sources for her. She noted that "having strong support from teachers in high school kept my confidence up about reading and writing, anything English-based." Clarissa remembered that other students in her high school would fear long assignments or research papers, but "that didn't scare me. I was like, okay, I can do this." She also spoke highly of her supportive corequisite professor and discussed how important it was to her to be able to email an instructor with a question and know that she would receive a timely and thoughtful response, especially

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in an online class. She laughingly pointed out, "some professors are not as good at bedside manners I guess you could say," and some "try to make it a scavenger hunt for projects." She also mentioned how her professor knew when she was not submitting her best work:

> She was speaking to me through grades, you know? She was like, now that we're at the end of the semester, I should be seeing some awesome essays from you, and you're still giving me what you were giving me before. 'I want you to know that I'm watching you.' And so when I saw that grade, I wasn't upset.

Clarissa understood that one grade that was lower than she expected was not about her abilities, but instead, it was about the effort that she put into that assignment. The social persuasion from both her high school and college reading and writing instructors helped her undertake and complete challenging writing tasks successfully.

Many of Clarissa's emotional and physiological experiences surrounding her corequisite course revolved around her unfamiliarity with the online format and her life circumstances at the time. She confessed that "I'm not even a technology person. Like, I struggle with plugging in a DVD player." Because of her work schedule and her children's schedule, she had to take the class online despite her concerns. She said "I just had to put it in my mind that I had to do it. There was no choice. I just had to force myself to understand it." Learners' interpretations of their physiological state can affect their self-efficacy (Bandura, 1997; Schunk & Pajares, 2005). The stress and anxiety that she was experiencing, even though it was caused by the format of the course rather than by her corequisite course itself, could have led her to believe that she could not complete the tasks at hand. She also spoke about her frustrations with the eBook that was required for the online course. "When you get the class, it automatically comes with the eBook.

Maybe it's because I'm an old lady. I like to take my schedule to the bookstore, hand it to them, and they give me my books." In addition, Clarissa mentioned the stress of finding time to complete her schoolwork. She said that after her work responsibilities increased in October, she was no longer able to find time for schoolwork during her workday and had to find time in the evenings when her children needed her attention:

> Normally I would use my office time to get some work done, but I wasn't able to do that because I had to oversee the office. I had to shift my study time from work time to home time. There was a lot going on.

If Clarissa had attributed her feelings of anxiety and stress as resulting from the corequisite course rather than the life circumstances she was experiencing, that attribution could have undermined her efficacy beliefs and affected her performance in the class. However, due to Clarissa's previously established high academic self-efficacy, she was able to control her stressors and use them to motivate and energize herself to organize her time and push through her challenges.

While Clarissa mentioned mastery experiences and vicarious experiences less often than other sources of self-efficacy, they were both central to her academic self-perceptions during her corequisite course. She pointed out that when she received a good grade and was successful on an essay, it increased her confidence. "It boosted my thought process and thinking. This is something I'm good at, and anybody who has confidence in something that they're doing, they're just always going to strive." Schunk and Pajares (2005) point out that while self-efficacy is task-specific, writing efficacy in this case, it can lead to an overall sense of competence, which it seemed to for Clarissa. In addition, early success in the scaffolded writing assignments in her corequisite course increased her sense of efficacy to complete more difficult writing assignments as the semester

continued. Her successful writing experiences in high school also contributed to her positive view of her writing efficacy.

Due to the nature of her asynchronous online course, Clarissa had few opportunities for vicarious experiences to inform her self-efficacy. "That's the only downfall to the whole online thing. You kind of don't get that interaction. I can't call someone new and say, 'hey did you get the notes on this and such?'" Clarissa was not able to see her classmates model successful writing behavior. She did, however, mention how valuable she found the ability to access her online classroom at any time of the day.

> The beautiful thing is that the notes are always there. They purposefully put them there so that you have your tool belt when it's time to build whatever it is that you need. You just dedicate yourself to keep up with it on a daily basis.

Clarissa also mentioned the inspiration of seeing other students overcome great odds in her job. She works in Student Life at SPC and sees young students overcoming problems such as homelessness, abusive relationships, and lack of family support. She said,

> They're dealing with real issues that made me realize that if they can do it, I can do it. You put that into perspective. I have a roof over my head, I have a car, and I've got gas. Things could be so much worse.

As Bandura (1994) points out, proficient models provide a standard against which to measure oneself and display qualities and skills to emulate. In fact, Schunk and Hanson (1985) found that observing peer models led to higher efficacy for learning in math students than observing teacher models. Although the students she interacts with are not classroom peers, many of them were facing financial and relationship difficulties similar to her own while navigating higher education. Seeing these students successfully overcome their substantial challenges helped Clarissa to understand that she can also overcome her challenges in pursuing her degree.

Overall, Clarissa felt that her corequisite course equipped her with writing skills that will enable her success in future courses and her job. She referred to the support course portion of the corequisite class as the "training wheels" that helped her get through it successfully and prepared her for future academic writing, and she was pleased to be able to take the two courses together. She also mentioned that she has new confidence in sending emails, an essential part of her job:

> I'm more aware of punctuation, the way I'm creating a sentence, the way I'm ending a conversation, or beginning an email. I have to send a lot of all@spc emails, so I feel like my confidence is definitely better than it was before.

She also uses her knowledge of writing to advise students:

> When they send stuff to AskSPC, all the administrative assistants get that. Sometimes I will email a student back to let them know that lots of people see what they are sending. This is a letter to someone you don't know. It isn't a text message conversation.

Clarissa has a positive appraisal of her writing capabilities and is happy to assist others in effective written communication.

Across Case Analysis

According to SCT, learning is social and interactive, and while COVID protocols and online learning changed the nature of that interaction, both participants created and strengthened self-efficacy beliefs in their composition and developmental courses (Ormrod, 2016). Comparisons across the cases revealed the emergence of all four of Bandura's hypothesized sources of academic self-efficacy and similar beliefs about writing. Table 12 presents illustrative quotes for each of the four sources for each participant: mastery experiences, vicarious experiences, social persuasion, and

physiological states. In addition, another significant theme emerged in the data analysis:

student choice.

Table 12

Self-Efficacy Sources in Cross Case Analysis

Sources of Self-Efficacy	Significant Participant Statements
Mastery Experiences/Performance Accomplishment	*Sequential Student:* "I can see how much I've grown in writing. My grade is almost 100 of 100."
	Corequisite Student: "I could very much tell a difference in my confidence level when it comes to writing, so I catch myself all the time. You know, even when I'm sending an email to somebody, I'm more aware of, you know, punctuation and the way I'm creating a sentence."
Vicarious Experiences	*Sequential Student:* "Because of the Coronavirus, it didn't allow us to connect with each other, other students."
	Corequisite Student: "That's the only downfall to the whole online thing is that you kind of don't get the interaction and you can't call somebody new like 'hey, did you get the notes on this and such.'
Social Persuasion	*Sequential Student*: "When I have a problem, I set up with the professor to go to her office. We discuss and I ask my teacher her opinion, and I can do it."
	Corequisite Student: "I feel like she [the professor] was speaking to me through grades. She was like 'ok, now we're at the end of the semester, and I should be seeing some awesome essays from you, and you're still giving me the same thing. I want you to know I'm watching you."
Physiological and Emotional States	*Sequential Student*: "At the first of the semester, I was scared. All of us were scared at the first of the semester, but when I start doing my assignment, I feel more comfortable and engage with the writing."
	Corequisite Student: "I'm a terrible tester. I hate any test…I'm really bad with double guessing myself

Mastery Experiences

Both participants discussed mastery experiences as positively impacting their self-efficacy and motivation, and both course models provided assignments and feedback that cultivated their cognitive competencies. Mastery experiences in a particular task are the most important factors affecting self-efficacy for similar tasks (Schunk & Pajares, 2005; Williams & Williams, 2010). Zoe, who completed the sequential courses, described the mastery experiences in her developmental course as being integral to her success in the gateway composition course. She felt that she benefited from learning basic writing and sentence construction skills in a developmental course. Her mastery of those writing assignments enabled her success in the gateway course. In fact, this experience was the most significant reason she felt that it was important to her academic success to take the classes sequentially rather than simultaneously. She moved from successful sentence and paragraph construction in the developmental course to writing full essays in the composition course. Clarissa, who completed the corequisite course, mentioned fewer mastery experiences than Zoe did, and most of those she highlighted occurred in high school. However, like Zoe, she felt that her success in writing assignments at the beginning of the semester as she learned to navigate the online learning environment helped her feel confident in her ability to complete the more complex assignments at the end of the semester. Both participants also spoke about how these experiences elevated their perceived capability to be successful academic writers in future coursework, confirming mastery experiences as a mobilizer of sustained effort (Bandura, 1994).

Vicarious Experiences

   According to SCT, learners acquire self-efficacy information for a new task by observing others' experiences. Despite COVID restrictions and online instruction, vicarious experiences served as sources of self-efficacy for both participants. Observing peers struggle with and then be successful in a task increases learners' self-efficacy for the task even more than observing a teacher modeling the same process (Schunk & Pajares, 2005; Zimmerman & Kitsantas, 2002). For Zoe, these vicarious experiences occurred mostly before the COVID restrictions shifted her course to the online format. Her developmental course began in a traditional face-to-face format, and she was able to meet other students and participate in class discussions and peer review. She mentioned that it was helpful to hear other students' points of view and discuss the assignments together. Learners who see others struggle and cope learn more than those who see someone master a skill on the first try (Kitsantas, Zimmerman, & Cleary, 200). Seeing others struggling with the same writing tasks and then be successful in the course helped Zoe to know that she could be successful as well. However, once the course shifted to online instructions, she maintained her positive self-efficacy views and was able to manage her assignments without the vicarious experiences. Clarissa's vicarious experiences, in contrast, occurred mostly outside of class. She chose to take her corequisite course online and did not experience the face-to-face interactions that Zoe did. She viewed the online peer review and cooperative assignments as boxes to check rather than opportunities to form relationships or see how others were doing in the class. However, she mentioned how powerful it was for her to see the examples of students that she meets in her job who have overcome significant obstacles and to be academically successful. While these students were not peers, their struggles with difficulties outside

the classroom were similar to those that Clarissa was facing. They helped her see that she too could overcome her challenges and be successful.

Social Persuasion

As Bandura (1994) notes, negative or unrealistically positive social persuasion can easily undermine academic self-efficacy, but both Zoe and Clarissa experienced social persuasion in their developmental and composition courses that cultivated their capabilities. Zoe's experiences of social persuasion occurred with her professor and the SPC librarian. The two conveyed positive appraisals of Zoe's capabilities and structured feedback in specific realistic terms that created behavioral validation. Clarissa also received frequent and specific feedback from her professor that served to boost her efficacy perceptions. As Hattie and Timperley (2007) point out, specific feedback from an instructor that addresses the gap between the current understanding and goals can boost students' self-efficacy. Clarissa understood that even when her grade for an essay was lower than she wished, the feedback was specific and tied to a goal. Therefore, she took it as constructive rather than punitive. It helped her realize that she could increase her writing performance. Clarissa also spoke about positive social persuasion from her high school teachers. Even though she graduated from high school years ago, she still remembers the persuasion and uses it to inform her current writing efficacy perceptions. In both Zoe's and Clarissa's cases, the social persuasion that they received did not seem to be a function of course design but instead was a product of expert educators who effectively promoted the development of skills.

Physiological or Emotional States

SCT suggests that learners' interpretation of their physiological or emotional state can affect their self-efficacy for the task (Bandura, 1997). For both Zoe and Clarissa physiological and emotional states were the most frequently mentioned of the four sources of self-efficacy. They both experienced negative physiological and emotional states when beginning their developmental courses which became more positive as the courses continued. For both participants, much of the stress and anxiety they felt originated in their uncertainty about the course design, the technology associated with the course, and grammar. Neither of the participants viewed enrollment in a developmental course as a source of shame, which could have been a further source of emotional distress. Clarissa was also dealing with stressful experiences in her personal life such as an increase in responsibilities in her job and becoming a single parent, which affected her attitude toward the course. Stress reactions can often lead to poor performance and reinforce self-doubts (Bandura, 1994). However, despite the discomfort of their anxious feelings, both participants maintained a resilient sense of academic self-efficacy and began to view writing as a more enjoyable activity as their confidence grew. In turn, the positive physiological and emotional states further reinforced their motivation and performance.

Student Choice

Beyond Bandura's sources of self-efficacy, student choice emerged as an influential factor in both participants' perceived academic efficacy. When specifically asked about their course designs, both mentioned the importance of the support course to their success in the gateway course and being able to choose when and where they took

it. Deci and Ryan's (1985) Basic Psychological Needs Theory identifies the need for choice and autonomy as a fundamental need and driver of behavior. Additionally, Ormrod (2016) points out that having choices is a key factor in student autonomy. Zoe deliberately chose the sequential course design to better fit her part-time schedule but also because she felt she needed to focus on developing her basic understanding of writing in English before attempting the gateway course's more challenging assignments. For Clarissa, however, the ability to take the gateway course immediately and earn college credit for a core course in her degree plan was paramount. Both participants spoke about how they would not have chosen any other option.

Mixed Methods Results

The quantitative results of this mixed methods study revealed that there was no statistically significant difference between students who completed the corequisite model developmental course and students who completed the sequential courses in self-efficacy scores, writing belief scores, or final grades in the gateway composition course. The qualitative case study analysis complemented the quantitative data. The first quantitative data source, the *SELF–A*, indicated that both groups had high academic self-efficacy, and both case study participants reported the same in the qualitative data. Additionally, as in the quantitative results for writing beliefs, both case study participants reported both transmissional and transactional writing beliefs, indicating that their views of the writing process seemed to shift based on the context of the writing situation and task.

Social Cognitive Theory suggests that the most important factor impacting self-efficacy beliefs for students is their own experience of successes or failures in academic tasks (Bandura, 1997; Schunk & Pajares, 2010). While the *SELF–A* did not specifically

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measure writing self-efficacy sources, both case study participants indicated mastery experiences as pivotal to helping them to feel more confident in their ability to successfully complete writing tasks, which confirms Bandura's theory. Their mastery experiences confirmed their judgments and led to optimism about their ability to be successful in future writing tasks.

While the number of coding references for each of the four sources of self-efficacy varied by participant, both participants experienced boosts to their academic self-efficacy in their developmental and composition courses. Additionally, both students felt that their skill level in written communication increased and the courses equipped them for future academic writing beyond the composition classroom. They were both initially concerned with grammar and punctuation but grew to view writing as an important and complex communication skill. As Bandura (1986) argues, "educational practices should be gauged not only by the skills and knowledge they impart for present use but also by what they do to children's beliefs about their capabilities" (p. 417). The educational practices of the developmental courses, whether offered before the gateway course or alongside it, met the participants' needs and provided them with increased self-efficacy for writing. This support fostered participants' ability to gain personal agency toward completing the gateway course and progressing toward their academic and career goals.

Discussion

Academic self-efficacy and writing beliefs in developmental students are important constructs to examine for equity-minded community college stakeholders. First, few developmental students go on to complete their gateway courses, and even fewer go on to graduate (Complete College America, 2016). Next, students deemed not

college-ready are disproportionally students from historically marginalized groups and those who are low-income and first-generation (White, 2016). Additionally, already widening educational and financial disparities are exacerbated by the effects of COVID-19 in ways that may have long-lasting effects for students in higher education (Aucejo, et al., 2020). If Texas is to achieve its goal of a more educated workforce and address the barriers that development students face, community college stakeholders must be aware of students' experiences in developmental education and reduce the barriers that these students face to achieving their academic goals.

Corequisite remediation is currently the primary tool for addressing the needs of underprepared students. The Texas legislature's approval of HB 2223 in 2017 requires the use of corequisite developmental course for 75% of students by the 2020-2021 academic year (2020). The state of Tennessee moved to an entirely corequisite model in 2016, which has been widely viewed as a success (Complete College America, 2016). While this study did not address gateway course completion rates, it is important to note that final grades in the gateway course for sequential students and corequisite students at SPC were similar with no statistical difference.

Additionally, students' self-efficacy and writing belief scores were similar for both groups, which contradicts the idea that concurrent enrollment in developmental and college-level courses is inherently better at enhancing academic self-efficacy. However, the way that participants' academic self-efficacy was bolstered through both types of developmental courses was consistent with the idea that academic self-efficacy beliefs are sensitive to contextual factors (Pajares, 1996) and relate to college student academic performance (Bong, 2001; Vancouver, Thompson & Williams, 2001). Students with high

academic self-perceptions are more likely to persist in the face of an occasional failure, and students with high transactional writing beliefs demonstrate greater levels of engagement in writing tasks.

Implications

The quantitative and qualitative results of this study have highlighted developmental students' experiences of the relationship between self-efficacy and writing beliefs and the course sequence that students complete. The major contribution of this study arises from the fact that there is no research specifically addressing academic self-perceptions of community college students enrolled in corequisite and sequential composition courses. Overall, this study highlights the powerful impact of both sequential and corequisite developmental English courses in boosting students' self-efficacy for writing, which allows those students to capitalize on their strengths in their gateway composition courses and empowers their future academic achievement.

The results of this study are aimed at developmental composition faculty, instructional designers, community college administrators, and policymakers. Knowing the relationship between developmental course design, academic self-perceptions, and final course grade may assist in better serving underprepared students as Texas pursues its goal of 60% of Texans aged 25 to 34 holding a postsecondary degree or certificate by 2030 (THECB, 2020). The specific implications include the following:

1. In this study, both types of developmental courses developed all of Bandura's hypothesized sources of self-efficacy. As Mathews, Bannerjee, and Lauermann (2014) found in their study of African-American and Latinx adolescents, students with a more positive academic self-perception placed a greater emphasis on academics and felt a greater sense of belonging. If both course types bolster developmental students' view of themselves as capable of academic achievement and increase their sense of belonging, then both course types can contribute to

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resiliency and agency and are valuable in meeting students' needs.

2. In this study, students who completed both course types had similar writing beliefs and final grades in the gateway composition course. This finding contradicts the idea that corequisite students would perform at a higher academic level because they were taking the support course and the college-level course simultaneously. For this group of students at SPC, the corequisite course and the sequential course enhanced students' level of engaging with ideas in writing in addition to developing their sentence fluency and voice.

3. In order to be responsive to student needs, sequential course types should not be eliminated at SPC. The challenge for SPC and the state of Texas is to offer flexibility and choice to students rather than shaping a policy that limits opportunities. While the Texas Higher Education Coordinating board's proposal that 100 % of developmental students will be enrolled in corequisite courses by the 2021-2022 academic year (THECB, 2020) is commendable and well-intentioned, it removes options for students to select the course type that best meets their needs. This choice is of particular relevance to students who are learning English as a second language and students who are part-time. For SPC to retain its student-centered ethos, state-level policymakers must recognize the humanity behind the numbers.

As Bandura (2012) points out, students with higher academic self-perceptions are more likely to persist in academic contexts with high cognitive load and withstand setbacks. Both course types support students' self-efficacy. Additionally, students' final grades in the gateway composition course were not significantly different between course types. While corequisite courses work well for the majority of students at SPC, removing a course option that successfully supports students' academic self-efficacy without significantly impacting the final course grade may do a disservice to those who prefer the sequential model.

Future Research

Because this study is the only research on the relationship between self-efficacy, writing beliefs, and final grades in the developmental course types, it leaves room for further research. Given the vital role of developmental education in the academic success

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of so many community college students, it is important to further investigate these ideas. First, this study would be worthwhile to replicate on a larger scale at other community colleges. Since all Texas community colleges are impacted by the corequisite enrollment requirement, the implications from this study may apply outside SPC. Second, it would be worthwhile to investigate how the gains in writing self-efficacy affect students' grades and persistence in their subsequent writing-intensive courses, such as Composition II. Finally, a longitudinal design that measures self-efficacy and writing beliefs both before and after the development and composition course combination would allow for a more causal analysis.

Conclusion and Summary

Examining the student experience in community colleges is essential because community colleges serve a larger proportion of students than any other type of institution of higher education. In fact, McKinney and Hagedorn (2017) found that of Texas students graduating with a bachelor's degree in 2013–2014, 70% had attended a community college. However, testing indicates that many of those students are underprepared and are, therefore, unable to enroll in college-level courses right away. These students are placed in developmental courses, which can serve as barriers to the completion of a degree or certificate. Additionally, students deemed not college-ready are disproportionally low-income, first-generation, and from traditionally underrepresented groups (Community College Research Center, 2019; Vandal, 2016; White, 2016). A strong sense of efficacy enhances academic accomplishments, but when students experience failures and setbacks, such as being denied enrollment in a college-level course, their sense of efficacy may be eroded, leading them to give up in the face of

academic obstacles (Bandura, 1994). Texas is seeking to address remediation concerns through a corequisite developmental education mandate. The literature related to developmental education does not specifically address students' experiences in corequisite composition courses and how those courses are related to academic self-efficacy.

Considering the effects of self-efficacy on student motivation and achievement, this study examines the relationships in academic self-efficacy and writing beliefs between students who have completed a corequisite model course and students who have completed the traditional developmental sequence. This study integrates both quantitative and qualitative data in an explanatory mixed methods design in which the quantitative data was collected first, and then the results were explained with in-depth qualitative data. In the first, quantitative phase of the study, the researcher collected academic self-efficacy and writing beliefs data from developmental students who had completed either of the course types. Additionally, students' final grades in the gateway college-level course were collected from student records. The quantitative data allowed the researcher to include the experiences of more students than would be possible through a strictly qualitative study. In the qualitative strand of the study, the researcher interviewed two students, one from each group, shortly after the quantitative phase. The second, qualitative phase sheds light on the quantitative results and provides further insights into the research questions.

The results of this study indicate that for this group, there was no significant difference in self-efficacy, writing beliefs, and final course grade between groups. Additionally, the qualitative results suggest that both types of developmental courses

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bolster student self-efficacy and meet differing student scheduling and educational needs. These results are significant in developing an awareness of academically underprepared students' self-perceptions and experiences in developmental composition courses for community college stakeholders. Speed and efficiency of degree completion, while important considerations at a systemic level, do not take into account the individual needs of a diverse student population. The results of this study indicate that stakeholders should not ignore the nuances of student experience and close off a course option that equips students with the tools for positive self-efficacy beliefs. It would be a disservice to these students to do so. In order to provide a short overview of this study and communicate its purpose and the significance of its results, Chapter Five will include an executive summary. In addition, Chapter Five includes a plan for the distribution of the results of this research to reach diverse stakeholders with a variety of agendas.

CHAPTER FIVE

Executive Summary

Introduction

The issues of improving services and outcomes for non-college-ready students have long been a concern of Texas high schools and colleges. The Texas Higher Education Coordinating Board (THECB), reports that 58.3 % of students entering Texas community colleges do not meet the Texas Success Initiative (TSI) standards for college readiness (THECB, 2018). In order to bridge the readiness gap, colleges place students in remedial or developmental courses based on test scores or other college entrance requirements rather than allowing them to enroll in college-level courses; developmental education has become a fixture in the day-to-day operations of community colleges (Arandale, 2011). However, although these courses are designed to foster students' academic progress, they do not always do so effectively. Of students placed in developmental courses nationwide, only 17% will go on to graduate (Complete College America, 2016). Additionally, there is an overrepresentation of historically marginalized groups in development education (Vandal, 2016). To address this problem, the Texas legislature has mandated that by the 2020–2021 academic year, 75% of developmental courses must be delivered using corequisite remediation rather than the traditional sequential model, and THECB has proposed raising that to 100% by the 2021–2022 academic year (Smith, 2017; THECB, 2020).

In addition to the external, environmental factors that many developmental students face such as poverty or first-generation status, academic performance is a result

of students' self-efficacy beliefs. Previous negative academic experiences coupled with a sense of shame from placement in a developmental course could erode students' sense of self-efficacy and cause them to psychologically disengage from academic tasks (Bandura, 1993; Bandura, 1997; Shafer, 2018). To create a truly equitable experience for students, community college faculty, administrators, and policymakers must avoid reinforcing negative efficacy perceptions and increase a sense of belonging and motivation. If developmental courses bolster students' positive academic self-perceptions, the students will be more likely to attain their academic goals. Current education literature does not address student experiences in corequisite developmental courses and their academic self-efficacy, hence the need for this study.

Overview of Data Collection and Analysis Procedures

Because academic self-efficacy affects student motivation, agency, and achievement, this study focuses on the relationship in writing beliefs, academic self-efficacy, and final course grade between students who have completed the traditional developmental composition course sequence and students who have completed a corequisite model composition course. This study integrates both quantitative and qualitative data using an explanatory mixed methods design. This design involves collecting quantitative data first and then explaining the results using in-depth qualitative data (Creswell & Plano Clark, 2018). The data sources for the first, quantitative phase of the study included the *Self-Efficacy for Learning Form-Abridged* (SELF–A) which assesses students' self-efficacy beliefs for academic functioning (Zimmerman & Kitsantas, 2007) and the revised *Writing Beliefs Inventory*, which assesses students' implicit beliefs about understanding and completing a writing task (White & Bruning,

2005). Additionally, the quantitative data included students' final grades in the gateway composition course. In the second, qualitative phase, two case studies, one from each group, served to explore the results of the quantitative phase. This study uses an *a priori* theoretical framework to guide the research questions, data collection, and data analysis. Bandura's Social Cognitive Theory (SCT) describes the learning process as a dynamic reciprocal process that occurs in a social context that considers one's past experiences and observations of the actions of others. The data from both phases addressed the following research questions:

1. What is the relationship in academic self-efficacy and writing belief scores between developmental students who have completed a corequisite model developmental and gateway composition course combination and students who have completed the traditional sequence of a developmental course followed by the gateway composition course?

2. What are the contributions of course sequence type to students' final grade in the gateway composition course?

Because the self-efficacy and writing beliefs inventories produce ordinal-level data, and the independent variable consists of two independent, categorical groups that do not overlap, the *Independent Samples Mann-Whitney U* test, a non-parametric test, was the best choice to compare each relationship and address the research questions (Field, 2018). Additionally, the *Independent Samples Mann-Whitney U* test was most appropriate for comparing the final grades of the groups who differ from each other in course type because the final grades were letter grades rather than numerical grades. For the second, qualitative phase of the study, the researcher sought to illuminate the quantitative results through semi-structured interviews. The data coding process followed Creswell and Poth's (2018) data analysis spiral and was aided by NVivo, a qualitative analysis software.

Summary of Key Findings

The first, quantitative phase of the study involved collecting data from three sources. Forty corequisite students and nine sequential students completed the first source of quantitative data, the *Writing Beliefs Inventory* (*WBI*). The transmissional writing belief scores in corequisite students did not differ significantly from sequential students after completion of the gateway course, $U= 247.500, z=1.75, p =.081$. Additionally, transactional writing belief scores in corequisite students did not differ significantly from sequential students after completion of the gateway course, $U = 200.000, z = .518, p = .081$. Forty-seven corequisite students and fourteen sequential students completed the second data source for the first phase of the study, the *SELF–A*. Self-efficacy scores in corequisite students did not differ significantly from sequential students after completion of the gateway course, $U = 387.00, z = .996, p = .319$. Verified final grades from the gateway composition course for all students who completed and received credit for either the corequisite course pairing (N=946) or the sequential course sequence including the gateway composition course (N=39) served as the third and final quantitative data source. Final gateway course grades for corequisite students did not differ significantly from sequential students, $U = 16250.500, z = -1.334, p = .182$. Due to the *p* values from the *Mann-Whitney U* tests for all three data sources, the researcher has retained the null hypothesis (H0) and concluded that there are no significant differences between groups in any of these measures. These results contradicted the idea that corequisite students would score higher in these areas because they were enrolled in the support course and the college-level course simultaneously.

The researcher selected one typical respondent for the qualitative phase from each group based on the mean scores for that group on the *WBI* and *SELF–A*. The interview

protocol was grounded in the results of the quantitative phase and consisted of five open-

ended questions asking about writing beliefs and academic self-efficacy. Analysis of the

cases revealed the emergence of all four of Bandura's sources of academic self-efficacy:

mastery experiences, vicarious experiences, social persuasion, and somatic and emotional

state. Additionally, student choice emerged as a source of self-efficacy for both

participants; both spoke about how their chosen course design worked for their schedules

and contributed to their success. Both participants grew to view themselves as capable

writers and communicators who could carry their new composition skills into future

courses and other areas of their lives.

Informed Recommendations

In light of these findings, community college policymakers and administrators

should carefully reconsider forcing 100 percent of developmental students into

corequisite courses as the Texas Higher Education Coordinating Board is currently

recommending for the 2021–2022 academic year (THECB, 2020). While the majority of

students enroll in corequisite courses, some students need a different option. Taking away

student choices does a disservice to students who cannot or prefer not to enroll in a

corequisite course, especially part-time students and those for whom English is a second

language. Learners who have choices and a sense of autonomy are more likely to be

motivated (Deci & Ryan, 1985), so in addition to increasing student self-efficacy, the

choice in course enrollment could also contribute to achievement in the gateway course.

As Texas pursues the admirable goal of 60% of Texans aged 25 to 34 holding a

postsecondary degree or certificate by 2030 (THECB, 2020), community college

stakeholders must account for student characteristics and avoid reducing access to equitable higher education.

<div style="text-align: center">*Findings Distribution Proposal*</div>

Target Audience

These results of this study are important to policymakers, administrators, and faculty in Texas institutions of higher education that offer developmental composition courses. As Texas seeks to expand opportunities for creating an educated workforce, stakeholders in higher education must consider developmental students' perceptions and experiences. Developmental education is of particular concern to Texas community colleges where 60% of enrolled students are considered not college-ready (Watkins, 2017). Additionally, as with any educational policy, it is the faculty who must implement developmental courses but are often left out of policy discussions. This study can inform policy decisions that integrate students' perspectives and refine developmental education to best serve the needs of academically underprepared students.

Proposed Distribution Method

The researcher will communicate the study outcomes through two different venues. First, the researcher will create a professional presentation of key findings and recommendations for stakeholders at SPC, specifically targeting faculty, staff, and administrators who work with developmental composition students. In order to expand the reach of the presentation to stakeholders at all campuses, the presentation will be held via ZOOM and will be recorded for those who cannot attend the live session. The session will last approximately thirty minutes and will cover the current issues and problems in

developmental education, the ongoing reform efforts in Texas, the study methods and results, and recommendations based on those results without overwhelming the audience with data and tables. The goals of the presentation are to raise awareness of developmental students' experiences and perspectives and to foster communication between stakeholders that enable serving the SPC student body more effectively Additionally, because many SPC faculty and staff members serve on statewide and national boards and committees dedicated to informing change and excellence in higher education, they will be equipped to share these results with a larger audience.

Next, the researcher will communicate the study outcomes through a poster presentation at the 18[th]Annual Texas Tech Advancing Teaching and Learning Conference. While the exact dates have not yet been announced, the conference will take place in the spring semester of 2022. Poster presentations for this conference may be given by graduate students, faculty, or staff, and require a 600-word or less proposal. Additionally, the posters must be of size 34" x 46", and the presenters are responsible for printing. The poster sessions will have no multi-media support of access to power outlets. This conference is attended by a broad interdisciplinary audience of stakeholders in higher education throughout the Texas panhandle region who are committed to teaching excellence.

Distribution Materials

The materials necessary for accomplishing these distribution goals will include presentation slides and a presentation manuscript for the professional presentation at SPC and a poster for the conference presentation. These professional presentation materials will communicate the research outcomes in an engaging manner that clearly outlines the

relevance of the study and its implications. The research poster will be visually appealing with an obvious flow that guides the viewer through the material. The poster will also communicate the relevance of the research results and include graphical representation to convey the results at a glance.

Conclusion

The relationship between students' placement in developmental courses and their academic self-perception is an important area of study. A commitment to understanding the significance of self-efficacy beliefs and the worth of developmental student voices will enable community college educators and administrators to become more responsive to the diverse group of students they serve and advocate on behalf of those students at the state and national level. Most stakeholders agree that problems in developmental education are longstanding; however, neither top-down data-driven frameworks creating total sweeping change nor total resistance to reform address nuanced student experiences and barriers to students' success.

APPENDICES

APPENDIX A

Consent Form for Research

PROTOCOL TITLE: South Plains College Students' Perspectives and the Relationship

Between Academic Self-Perception, Implicit Writing Beliefs, and Their Experiences in a

Corequisite Model Writing Course: A Mixed Methods Study

PRINCIPAL INVESTIGATOR: Buffy Rattan

SUPPORTED BY: Baylor University

Purpose of the research: The purpose of this study is to amplify the student voices and

experiences currently not in consideration in the developmental education discourse. You

are asked to participate in this study because you have completed a developmental

English course at South Plains College along with English 1301: Composition I.

Study activities: You are asked to complete two surveys: The *Self-Efficacy for Learning*

Form and the *Writing Beliefs Inventory*. The two surveys will take approximately 15

minutes of your time. If you don't have time to answer all questions at once, you can

resume where you left off at any point in the survey. Two students who complete the

surveys will be selected to participate in short follow-up interviews on this topic, either

in-person, via phone, or via Zoom. If you are interested in participating in an interview,

please select yes on the relevant survey question, and I will be in contact via email.

Risks and Benefits: To the best of my knowledge, there are no risks to you for taking part in this study. Others may benefit in the future from the information that is learned in this study.

Confidentiality: Confidentiality will be maintained to the degree permitted by the technology used. Your participation in this online survey involves risks similar to a person's everyday use of the Internet, which could include illegal interception of the data by another party. If you are concerned about your data security, contact the researcher to schedule a time to complete a printed survey with the same questions/you should not participate in this research.

We will keep the records of this study confidential by state how you will ensure that the subject's records are kept confidential. We will make every effort to keep your records confidential. However, there are times when federal or state law requires the disclosure of your records.

Authorized staff of Baylor University may review the study records for purposes such as quality control or safety.

Compensation: All students who complete both surveys will be entered into a random drawing for a $25 Walmart gift card. The drawing will take place on December 9, 2020, or when a sufficient number of responses have been recorded. The winner will be notified by email and will have a choice of a physical gift card or an electronic gift card.

Questions or concerns about this research study: You can call the researcher(s) with any concerns or questions about the research.

- Buffy Rattan: mrattan@southplainscollege.edu; (806)716-2434

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), you may contact the Baylor University IRB through the Office of the Vice Provost for Research at 254-710-3708 or irb@baylor.edu.

Taking part in this study is your choice. You are free not to take part or to stop at any time for any reason. No matter what you decide, there will be no penalty or loss of benefit to which you are entitled. If you decide to withdraw from this study, the information that you have already provided will be kept confidential. Information already collected about you cannot be deleted.

By continuing with the research and completing the study activities, you are providing your consent.

APPENDIX B

IRB Exemption

Rattan, Margaret
_____

From:	Trevino, Jessica
Sent:	Thursday, June 11, 2020 8:47 AM
To:	Rattan, Margaret; Holland, Deborah
Cc:	Talbert, Tony
Subject:	Re: BU IRB Inquiry
Attachments:	Is This HSR Booklet - TP (2).pdf

Hello Buffy,

Thanks for reaching out. Your study does not qualify as human subjects research because your results would not be generalizable to a broader population due to your focus only on students in a particular class. Thus, you do not need to submit any documents to our office. Attached is our guidance booklet if you have questions about determinations. Let me know if you have any questions.

Best regards,
Jessica Trevino

APPENDIX C

Interview Protocol

1. Tell me a little about yourself and your experience in your English classes at SPC.

   a. The researcher also used probes for each question such as the following:

      i. Tell me more

      ii. When did that happen?

      iii. Can you give more detail?

      iv. Can you explain more about that?

2. How did you view your skills as a reader and writer before you began your English classes at SPC, and how do you view them now?

3. How did your experiences in your English courses affect your academic self-confidence?

4. What specific experiences impacted your beliefs about yourself as an academic writer, either in your classes or outside your classes?

5. How do you feel about yourself as a writer in the future?

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